

Oracle Banking Common Core User Guide

Oracle Banking Virtual Account Management

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Oracle Banking Common Core User Guide

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1 Preface

1.1 Introduction

This user guide is designed to help you quickly get acquainted with the many functions routinely executed every day.

1.2 Audience

This user guide is intended for the central administrator of the Bank who controls the system and application parameters and ensures smooth functionality and flexibility of the banking application.

1.3 Document Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

1.4 Acronyms and Abbreviations

Following are some of the acronyms and abbreviations you are likely to find in this user manual:

Table 1: Acronyms and Abbreviations

Abbreviation	Description
System	Core Maintenance Module
NLP	Natural Language Processing
REST	Representational State Transfer

1.5 List of Topics

This user guide is organized as follow:

Table 2: List of Topics

Topics	Description
Multi Entity Maintenance	This topic describes about Multi Entity Maintenance module.
Core Maintenance	This topic describes about Core Maintenance module.
NLP Framework	This topic describes about NLP Framework.
Machine Learning Framework	This topic describes about Machine Learning Framework.
Error Codes and Messages	This topic describes list of error codes and messages.

Topics	Description
Glossary	This topic provides list of glossary and their definitions.
List of Menus	This topic has alphabetical list of Core Maintenance processes with page references for quick navigation.
Reference and Feedback	This topic provides the reference documents and information about feedback and support.

1.6 Related Documents





For more information on any related features, you can refer to the following documents:

- Oracle Banking Security Management System User Guide
- Getting Started User Guide

1.7 Symbols and Icons

The following are some of the Symbols you are likely to find in the guide:

Table 3: Symbols and Icons - Common

Symbol/Icon	Function
→	Represents Results
	Minimize
	Maximize
×	Close
	Perform Search
▼	Open a list
	Add a new record
⏪	Navigate to the first record
⏩	Navigate to the last record
⏴	Navigate to the previous record






Symbol/Icon	Function
>	Navigate to the next record
	Grid view
	List view
	Refresh
	Click this icon to add a new row.
	Click this icon to delete a row, which is already added.

Table 4: Symbols and Icons – Audit Details









Symbol/Icon	Function
	A user
	Date and time
	Unauthorized or Closed status
	Authorized or Open status

Table 5: Symbols and Icons - Widget

Symbol/Icon	Function
	Open status
	Unauthorized status
	Closed status
	Authorized status

1.8 Basic Actions

Most of the screens contain buttons to perform all or few of the basic actions. The table below gives a snapshot of them:

Table 6: Basic Actions

Actions	Description
New	Click to add a new record. When you click New, system displays a new record enabling you to specify the required data. It is mandatory to specify details for the fields marked with '*' symbol. NOTE: This button is displayed only for the records that are already created.
Save	Click to save the details entered or selected in the screen.
Unlock	Click to update the details of an existing record. System displays an existing record in editable mode. NOTE: This button is displayed only for the records that are already created.
Authorize	Click to authorize the record created. A maker of the screen is not allowed to authorize the same. Only a checker can authorize a record. NOTE: This button is displayed only for the already created records. For more information on the process, see Authorization Process.
Approve	Click to approve the initiated record. NOTE: This button is displayed, once you click Authorize .
Audit	Click to view the maker details, checker details of the particular record. NOTE: This button is displayed only for the records that are already created.
Close	Click to close a record. This action is available only when a record is created.
Confirm	Click to confirm the action you performed.
Cancel	Click to cancel the action you performed.

Actions	Description
Compare	Click to view the comparison through the field values of old record and the current record. NOTE: This button is displayed in the widget, once you click Authorize .
View	Click to view the details in a particular modification stage. NOTE: This button is displayed in the widget, once you click Authorize .
View Difference only	Click to view a comparison through the field element values of old record and the current record, which has undergone changes. NOTE: This button is displayed, once you click Compare .
Expand All	Click to expand and view all the details in the sections. NOTE: This button is displayed, once you click Compare .
Collapse All	Click to hide the details in the sections. NOTE: This button is displayed, once you click Compare .
OK	Click to confirm the details in the screen.

2 Multi Entity Maintenance

This section of the user guide is designed to help multi entity admins to create new entities, users and entity admins.

2.1 Prerequisites

Specify **User ID** and **Password**, and login **Home screen**.

→ The **Home screen** is displayed.

Multi entity admin user creation scripts should be run and multi entity admin user should be created in the LDAP. Please refer *Oracle Banking Microservices Platform Foundation Installation Guide* for more details.

2.2 Entities

Multi entity admins can configure new entities.

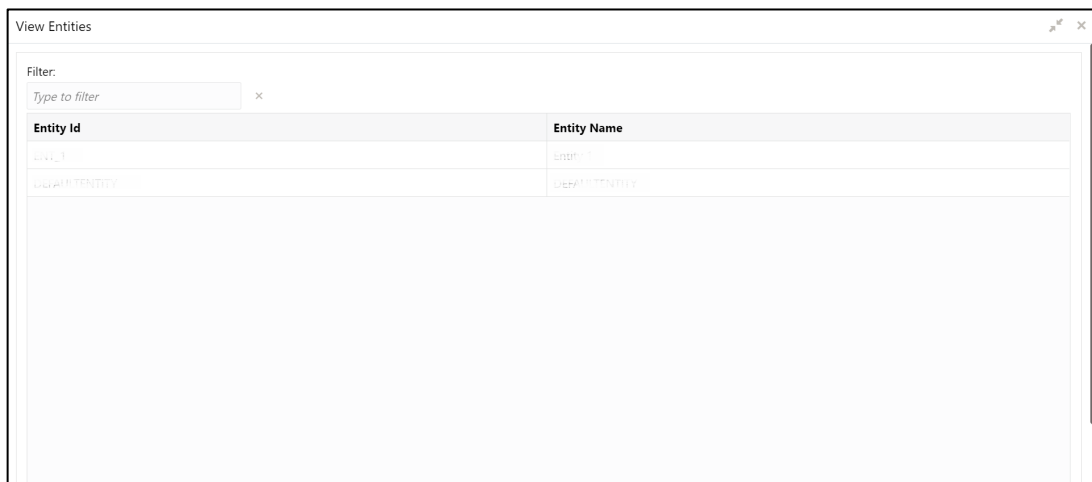
2.2.1 View Entities

The summary screen provides a list of all entities.

1. From **Home** screen, click **Entities**. Under **Entities**, click **View Entities**.

→ The **View Entities** screen is displayed.

Figure 1: View Entities



The screenshot shows a web application window titled "View Entities". At the top left, there is a "Filter:" section with a text input field containing "Type to filter" and a small "x" icon to its right. Below the filter is a table with two columns: "Entity Id" and "Entity Name". The table has two rows of data. The first row shows "ENT1" under "Entity Id" and "ENT01" under "Entity Name". The second row shows "LDAP ENTITY" under "Entity Id" and "LDAP ENTITY" under "Entity Name". The table is styled with a light gray header and alternating row colors.

Entity Id	Entity Name
ENT1	ENT01
LDAP ENTITY	LDAP ENTITY

2. On **View Entities** screen, view the details. For more information on fields, refer to the field description table below.

Table 7: View Entities – Field Description

Field	Description
Entity Id	Displays the entity Id of the entity.
Entity Name	Displays the name of the entity.

2.2.2 Create Entity

The maintenance screen allows multi entity admins to configure a new entity.

1. From **Home** screen, click **Entities**. Under **Entities**, click **Create Entity**.

→ The **Create Entity** screen is displayed.

Figure 2: Create Entity

2. On **Create Entity** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 8: Create Entity – Field Description

Field	Description
Entity Id	Specify the entity Id for the entity.
Entity Name	Specify the name of the entity.
HO Branch Code	Specify the head office branch code of the entity.
HO Branch Name	Specify the head office branch name of the entity.
HO Branch Address	Specify the head office branch address of the entity.

Field	Description
Host Code	Specify the host code.
Country	Select the head office branch country code.
Current HO Branch Posting Date	Select the head office branch current posting date.
Previous HO Branch Posting Date	Select the head office branch previous posting date.
Next HO Branch Posting Date	Select the head office branch next posting date.
Bank Name	Specify the bank name.
Bank Code	Specify the bank code.
Application JNDI Mapping	
By default, application Ids that require a JNDI appear. You can click + to add multiple application jndi mappings and click - to remove an application jndi mapping.	
Application Id	Click Search and select the required application Ids from the list.
JNDI	Specify the JNDI for the application Id.

- Click **Save**. You can view the confirmation entity details in the [View Entities](#).

2.3.2 Create User

The maintenance screen allows multi entity admins to configure a new entity.

1. From **Home** screen, click **Users**. Under **Users**, click **Create User**.

→ The **Create User** screen is displayed.

Figure 4: Create User

The screenshot shows the 'Create User' interface. It features a 'User Details' section with the following fields: 'User ID *', 'User Name *', 'Locale *', 'Email ID *', 'Start Date *', and 'End Date *'. The 'Entity Mapping' section contains a table with columns for 'Entity ID', 'Home Entity', and 'Entity Admin'. The table is currently empty, with a message 'No data to display.' and a pagination control showing 'Page 1 (0 of 0 items)'. A 'Save' button is positioned at the bottom left of the form.

2. On **Create User** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 10: Create User – Field Description

Field	Description
User Id	Specify the user Id.
User Name	Specify the user name.
Locale	Specify the user locale.
Email ID	Specify the user email ID.
Start Date	Select the user start date. The start date of the user should greater than the Current HO Branch Posting Date.
End Date	Select the user end date.
Entity Mapping	
Click + to add a row and provide the required details.	
Entity Id	Click Search and select the entity to which the user belongs.

Field	Description
Home Entity	Select whether the entity is user's home entity. Only one entity can be selected as Home Entity for a user
Entity Admin	Select whether the user is an entity admin of the entity. Marking a user as Entity Admin will give rights to the user to perform the following actions when logged in to that entity. <ul style="list-style-type: none">• Modify the details of the users in the entity.• Create branches in the entity• Create roles in the entity.• Assign the roles and branches to the users.

3. Click **Save**. You can view the confirmation entity details in the [View Users](#).

3 Core Maintenance

This section is designed to help you quickly get acquainted with the many functions routinely executed everyday.

This section contains the following topics:

- [3.1 Additional Field Maintenance](#)
- [3.2 Advice](#)
- [3.3 Amount Text Language](#)
- [3.4 BIC Directory](#)
- [3.5 Branch EOD](#)
- [3.6 Country Code](#)
- [3.7 Currency Definition](#)
- [3.8 Currency Exchange Rate](#)
- [3.9 Currency Holiday Master](#)
- [3.10 Currency Pair Definition](#)
- [3.11 Currency Rate Type](#)
- [3.12 Customer Category](#)
- [3.13 ECA System](#)
- [3.14 External Bank Parameters](#)
- [3.15 External Branch Parameters](#)
- [3.16 External Chart Account](#)
- [3.17 External Customer](#)
- [3.18 External Customer Account](#)
- [3.19 External Customer Account Structured Address](#)
- [3.20 External Virtual Account Structured Address](#)
- [3.21 Forget Process](#)
- [3.22 Host Code](#)
- [3.23 Language Code](#)
- [3.24 Local Holiday](#)
- [3.25 Media](#)

- [3.26 Multi-Currency Account Linkage](#)
- [3.27 Process Code](#)
- [3.28 System Dates](#)
- [3.29 Transaction Code](#)
- [3.30 Upload Source](#)
- [3.31 Upload Source Preference](#)
- [3.32 Pricing Source System](#)
- [3.33 Integrating Bureau Integration Service with Oracle Banking Routing Hub](#)
- [3.34 Bureau Integration Service](#)
- [3.35 Credit Bureau Display](#)
- [3.36 Lookup](#)
- [3.37 Criteria](#)
- [3.38 System Parameter](#)
- [3.39 Integrating Decision Service with Oracle Banking Routing Hub](#)
- [3.40 Decision Service](#)
- [3.41 Product Processor](#)
- [3.42 Lookups](#)
- [3.43 Parameters](#)
- [3.44 Strategy Configuration](#)
- [3.45 Logical Model](#)
- [3.46 Borrowing Capacity](#)
- [3.47 Questionnaire](#)
- [3.48 Qualitative Scoring Model](#)
- [3.49 Scoring Feature](#)
- [3.50 Quantitative Scoring Model](#)
- [3.51 Decision Grade Matrix](#)
- [3.52 Pricing](#)
- [3.53 Execution Summary](#)

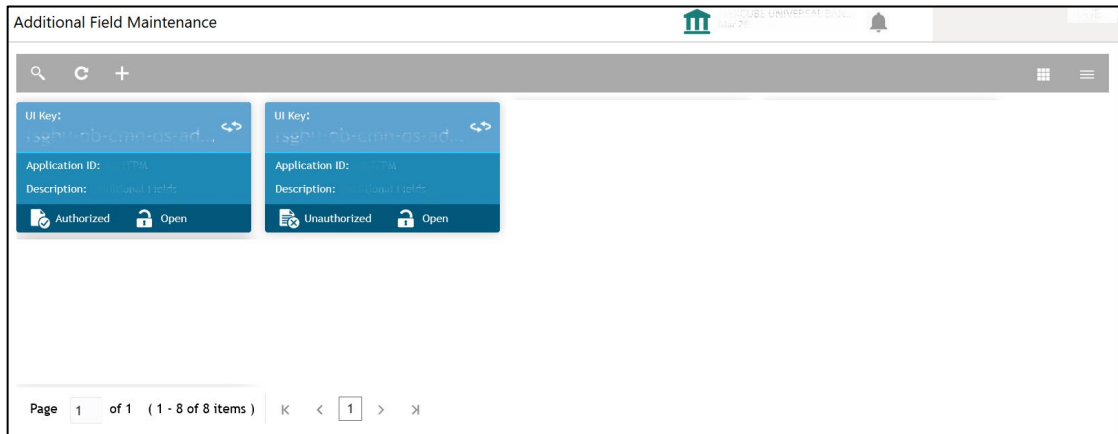
3.1 Additional Field Maintenance

This screen is used to configure and maintain the additional fields for the transaction screens. To process this screen, perform the following steps:

1. From **Home screen**, click **Core Maintenance**. Under **Core Maintenance**, click **Additional Field Maintenance**.

→ The **Additional Field Maintenance Summary** screen is displayed.

Figure 5: Additional Field Maintenance Summary



For more information on fields, refer to the field description table below.

Table 11: Additional Field Maintenance Summary – Field Description

Field	Description
UI Key	Displays the UI key of the additional field.
Application ID	Displays the related application ID of the additional field.
Description	Displays the description of the additional field.
Status	Displays the status of the record.

2. On **Additional Field Maintenance Summary** screen, click **+** icon.

→ The **Additional Fields Maintenance** screen is displayed.

Figure 6: Additional Fields Maintenance

- On **Additional Fields Maintenance** screen, specify the fields. For more information on fields, refer to the field description table below.

Table 12: Additional Fields Maintenance – Field Description

Field	Description
Component Name	Click Search icon and select the component name from the list of
Product Code	Click Search icon and select the product code from the list of
Product Name	Displays the product name for the specified product code.
Description	Displays the description as Additional Fields , and it can be modified.
Application ID	Displays the Application ID.
Construct Additional Fields MetaData	Specify the details under this section to configure metadata for each field.
Select	Check this box to select/unselect a row.
Field ID	Specify the field ID.
Field Label	Specify the field label.
Category	Specify the category.
Field Type	Select the field type from the drop-down values.
Edit	Click this icon to edit the fields in the row.
Mandatory	Check this box if the field needs to be configured as mandatory.
Construct Validation MetaData	Specify the details under this section for validations to be applied on configured fields.

Field	Description
Select	Check this box to select/unselect a row.
Validation Name	Specify the validation name.
Validation Template To Use	Select the template to be used for the validation.
Custom Error Message	Specify the error message that needs to be displayed for the
Edit Arguments	Click this icon to edit the fields in the row.

4. Click **Save**. You can view the confirmation advice details in the [Additional Field Maintenance Summary](#).

3.2 Advice

You can configure various BIP advices that are available for the process.

This section contains following subsections:

- [3.2.1 Advice Summary](#)
- [3.2.2 Advice Maintenance](#)

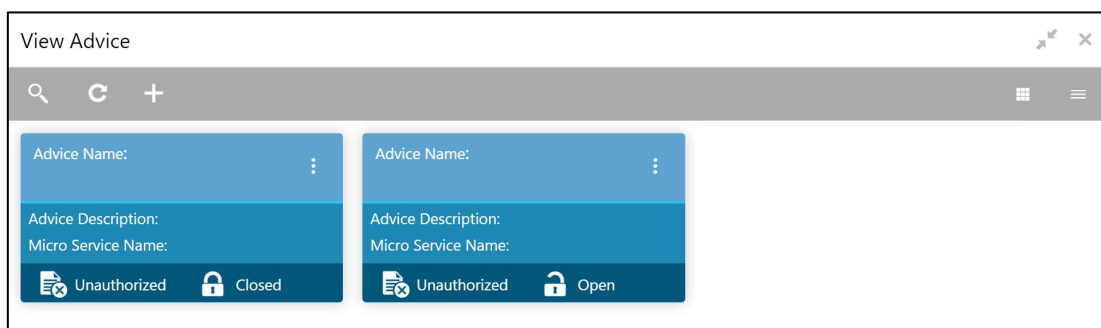
3.2.1 Advice Summary

The summary screen provides a list of configured advice. You can configure an advice for a process using the [Advice Maintenance](#). To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Advice**.
2. Under **Advice**, click **View Advice**.

→ The **View Advice** screen is displayed.

Figure 7: View Advice



For more information on fields, refer to the field description table below.

Table 13: View Advice – Field Description

Field	Description
Advice Name	Displays the name of the advice.
Advice Description	Displays information about the advice.
Micro Service Name	Displays the name of the micro service.
Status	Displays the status of the record.

3.2.2 Advice Maintenance

The maintenance screen allows you to configure advices. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Advice**.
2. Under **Advice**, click **Create Advice**.

→ The **Create Advice** screen is displayed.

Figure 8: Create Advice

3. On **Create Advice** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 14: Create Advice – Field Description

Field	Description
Advice Name	Specify the name of the advice.
Advice Description	Specify the information about the advice.

Field	Description
Micro Service Name	Specify the name of the micro service.
Swift Micro Service	Specify the information about the swift micro service.
Micro Service Endpoint	Specify the endpoint micro service.
Application Name	Specify the application name for which advice is generated.
Application Description	Specify the additional information about the application.
Media	Search and select the required media.
Branch	Search and select the required branch.
Currency	Search and select the required currency.
Report Locale	Specify the locale report details.
Report Absolute Path	Specify the report absolute path.
Format	Select a download file format for an advice from the dropdown list. The formats available are, PDF, PPTX, HTML, XLS, and RTF.
Swift Endpoint	Specify the swift endpoint.

4. Click **Save**. You can view the confirmation advice details in the [Advice Summary](#).

3.3 Amount Text Language

You can configure an amount text language.

This section contains following subsections:

- [3.3.1 Amount Text Language Summary](#)
- [3.3.2 Amount Text Language Maintenance](#)

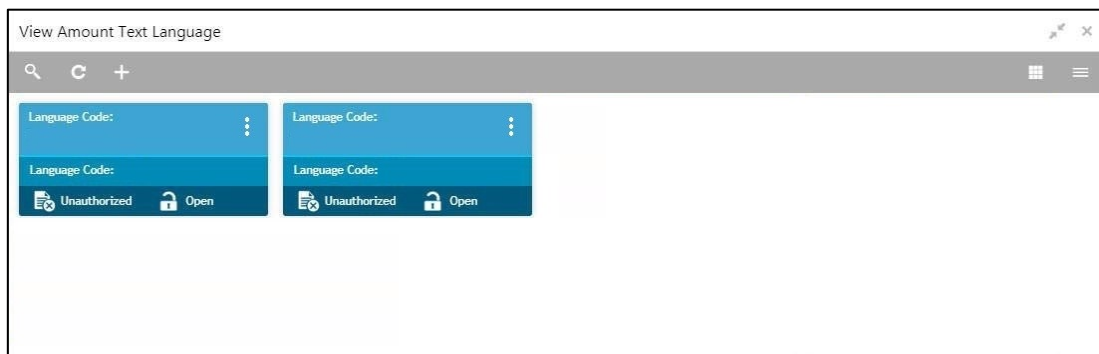
3.3.1 Amount Text Language Summary

The summary screen provides a list of configured amount text language. You can configure an amount text language using the [Amount Text Language Maintenance](#). To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Amount Text Language**.
2. Under **Amount Text Language**, click **View Amount Text Language**.

→ The **View Amount Text Language** screen is displayed.

Figure 9: View Amount Text Language



For more information on fields, refer to the field description table below.

Table 15: View Amount Text Language – Field Description

Field	Description
Language Code	Displays the language code associated with the amount word.
Status	Displays the status of the record.

3.3.2 Amount Text Language Maintenance

The maintenance screen allows you to configure amount text language. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Amount Text Language**.
2. Under **Amount Text Language**, click **Create Amount Text Language**.

→ The **Create Amount Text Language** screen is displayed.

Figure 10: Create Amount Text Language

3. On **Create Amount Text Language** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below. .

Table 16: Create Amount Text Language – Field Description

Field	Description
Language Code	Search and select the required language code.
Amount Word Currency List	Specify the amount word currency details.
CCY Symbol	Specify the CCY symbols.
Decimals As Fraction	Select a decimals as fraction value from the drop-down list.

Field	Description
Final Text	Specify the final text for the amount word currency list.
CCY	Search and select the CCY.
Post Decimal	Specify the post decimal details.
Pre Decimal	Specify the pre decimal details.
Text Before	Select an option for the before text.
Text Between	Specify the text that must appear between the amount word currency list.
Amount Word Text List	Specify the amount word text details.
Amount	Select the amount details.
One Flag	Select an option for the amount word text list.
Text	Specify the text for the amount word.

4. Click **Save**. You can view the configured amount text language details in the [Amount Text Language Summary](#).

3.4 BIC Directory

As part of setting up basic information, you must maintain Bank Identifier Codes (BIC). You can configure the BIC directory for a customer.

This section contains following subsections:

- [3.4.1 BIC Directory Summary](#)
- [3.4.2 BIC Directory Maintenance](#)

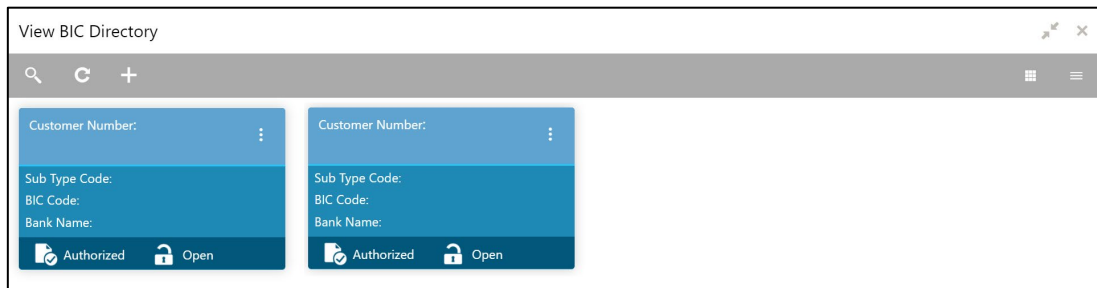
3.4.1 BIC Directory Summary

The summary screen provides a list of configured BIC directory. You can configure the BIC directory using the [BIC Directory Maintenance](#). To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **BIC Directory**.
2. Under **BIC Directory**, click **View BIC Directory**.

→ The **View BIC Directory** screen is displayed.

Figure 11: View BIC Directory



For more information on menus, refer to the field description table below. .

Table 17: View BIC Directory – Field Description

Field	Description
Customer Number	Displays the number of the customer.
Sub-type Code	Displays the sub-type code associated with the customer number.
BIC Code	Displays the defined BIC code for the associated customer
Bank Name	Displays the name of the bank.
Status	Displays the status of the record.

3.4.2 BIC Directory Maintenance

The maintenance screen allows you to configure a BIC directory for a customer. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **BIC Directory**.
2. Under **BIC Directory**, click **Create BIC Directory**.

→ The **Create BIC Directory** screen is displayed.

Figure 12: Create BIC Directory

3. On **Create BIC Directory** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below. .

Table 18: Create BIC Directory – Field Description

Field	Description
BIC Code	Specify the unique BIC Code by which the bank is identified by SWIFT.
Bank Name	Specify the name for the bank.
Customer Number	Search and select the required customer number.
Customer Name	Based on the Customer Number selected, the information is auto-populated.
Bank Address 1-3	Based on the Customer Number selected, the information is auto-populated.
SWIFT Key	Specify the swift key details.
Telex Key	Specify the unique telex key for the BIC directory.

Field	Description
SWIFT Key Arrangement	Select the SWIFT key arrangement from the drop-down list.
Relationship	Select one of the following options: <ul style="list-style-type: none"> No: If selected, indicates that the BIC Entity is not a customer of your bank Mail: If selected, the BIC entity is not a recognized SWIFT entity but an address internal to your bank. In such cases, all correspondence directed to the particular BIC entity is sent as mail messages. Keys: If selected, a SWIFT/Telex connectivity exists between your bank and the bank for which you are maintaining details. Subsequently, you must specify the SWIFT/Telex Key in the adjacent field.
Sub-type Code	Search and select the required sub-type code.
BEI Indicator	Based on the Sub-type Code selected, the information is auto-populated.
ADB Member	Select the ADB member from the drop-down list.
Payment Message	Specify the payment message details.
MT103+ Preferred	By default, this is disabled. If selected, indicates the counter party whose BIC code details you are capturing capacitate to receive payment messages in the MT 103 format.
Blacklisted	By default, this is disabled. If selected, indicates the BIC entity is blacklisted.
CUG Member	By default, this is disabled. If selected, indicates the BIC entity is a closed user group member. Remit Member: By default, this is disabled. If selected, indicates the customer is registered with MT 103 extended remittance information multiple user group.
Update During Upload	By default, this is disabled. If selected, updated the BIC directory during an upload.
Multi-Customer Credit Transfer	Specify the Multi-Customer Credit Transfer details.
Multi-Customer Credit Transfer	By default, this is disabled. If selected, indicates multiple credit transfer feature [MT102 support] exists between the bank and the BIC entity.

Field	Description
Generate 102+	By default, this is disabled. If selected, generates 102+ message.
Maximum Size in Bytes	Specify the maximum size.
Request for Transfer	Specify the Request for Transfer details.
Generate MT101	By default, this is disabled. If selected, indicates MT101 can be sent/received from this BIC. Select to generate MT101 message.
Number of Transactions Per Page	Specify the number of transactions to view per page. If you do not specify a value it is defaulted to 10.
Real Customer Number	Search and select the required real customer number.
Real Customer Name	Based on the Real Customer Number selected, the information is auto- populated.

- Click **Save**. You can view the configure BIC directory in the [BIC Directory Summary](#).

3.5 Branch EOD

You can invoke End of Day (EOD) to indicate that all the activities for the day are complete. Activities can be performed on the system only after the system date is changed to the next working day and authorized.

Most of the automated functions are part of the beginning of day operations. Thereafter, some of them must be executed when the system is in the EOTI (End of Transaction Input) stage.

This section contains following subsections:

- [3.5.1 Branch EOD Summary](#)
- [3.5.2 Branch EOD Maintenance](#)
- [3.5.3 Branch EOD Invoke](#)

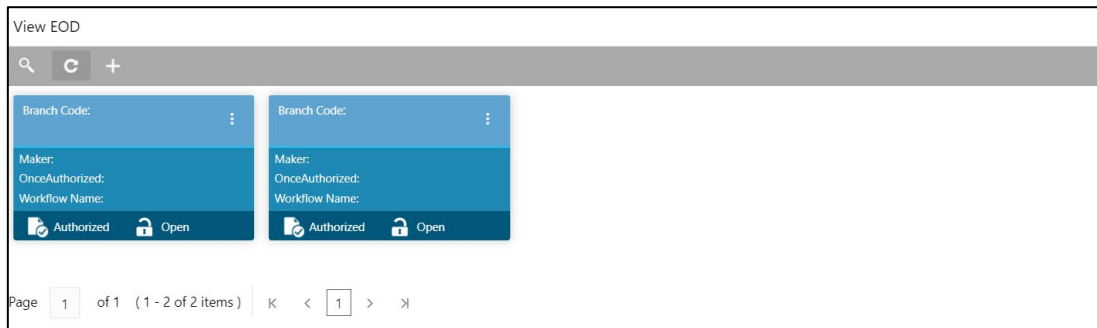
3.5.1 Branch EOD Summary

The summary screen provides list of branch workflow mappings. You can configure branch workflow mapping using the [Branch EOD Maintenance](#). To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Branch EOD**.
2. Under **Branch EOD**, click **View EOD**.

→ The **View EOD** screen is displayed.

Figure 13: View EOD



For more information on fields, refer to the field description table below.

Table 19: View EOD – Field Description

Field	Description
Branch Code	Displays the branch code details.
Workflow Name	Displays the name of the workflow.
Status	Displays the status of the record.

3.5.2 Branch EOD Maintenance

The maintenance screen allows you to create/configure the EOD workflow with a Branch. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Branch EOD**.
2. Under **Branch EOD**, click **Configure EOD**.

→ The **Configure EOD** screen is displayed.

Figure 14: Configure EOD

The screenshot shows a web form titled "Configure EOD". At the top, there are three input fields: "Branch Code *" with a search icon, "Description" (disabled), and "Workflow Name *". Below these fields is a large empty area. At the bottom right, there are two buttons: "Save" and "Cancel".

3. On **Configure EOD** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 20: Configure EOD – Field Description

Field	Description
Branch Code	Specify the branch code that is associated with the logged in user.
Description	Displays the description of the branch.
Workflow Name	Specify the workflow name that is already created.

For more information on EOD Workflow creation and related terminologies please refer to **EOD Configuration Guide** of the respective products.

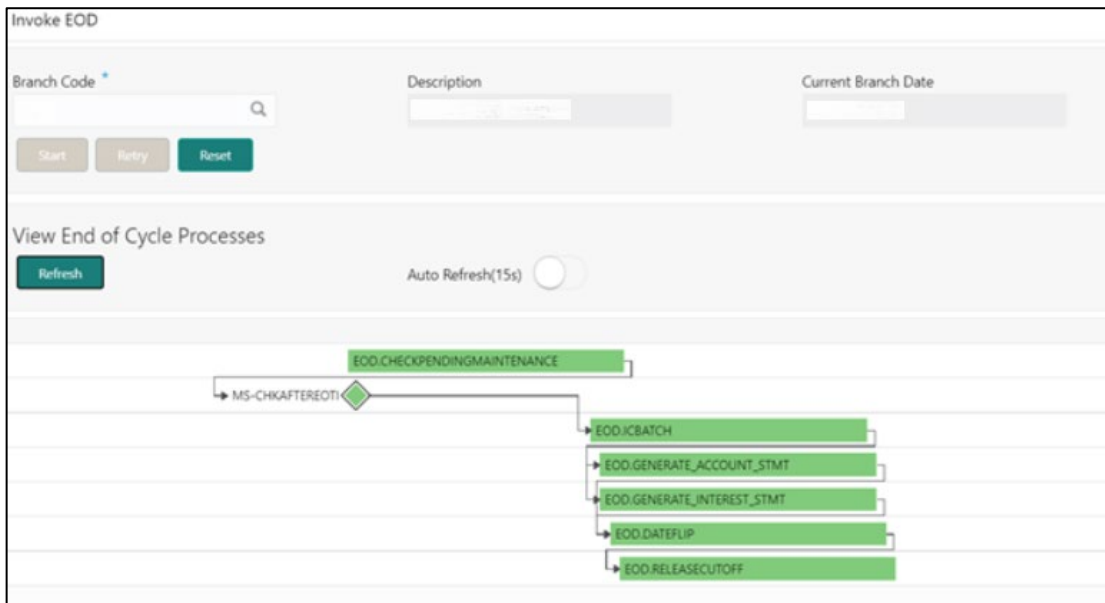
3.5.3 Branch EOD Invoke

The action screen allows you to invoke the branch EOD process as per branch and workflow mapping configured using [Branch EOD Maintenance](#). To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Branch EOD**.
2. Under **Branch EOD**, click **Invoke EOD**.

→ The **Invoke EOD** screen is displayed.

Figure 15: Invoke EOD



3. On **Invoke EOD** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 21: Invoke EOD – Field Description

Field	Description
Branch Code	Specify the branch code that is associated with the logged in user.
Description	Displays the description of the branch.
Current Branch Date	Displays the current branch date.

4. Click **Start** to invoke EOD for selected branch and Click **Refresh** to view the current status of batch.
5. Click **Retry** to restart the EOD workflow from the failed task.

NOTE: **Retry** button will be enabled only if the failed task status is encountered.

6. Click **Reset** to clear the branch selected.
7. Click **Refresh** to view the current status of batch.
8. Mouse-hover on the task to view the relevant details such as Start time, End time and Error if any.

Table 22: EOD Task – Status Description

Status	Description
Green	Task is completed
Yellow	Task is in progress
Red	Task failed due to some error.
Grey	Task is scheduled but not executed
Diamond Shape	Task has reached a milestone stage where execution will be paused. Right-click on milestone stage and select “Proceed” to resume batch execution.

For more information on EOD stages, please refer to EOD Configurations Guide of the respective products.

3.6 Country Code

You can configure a country code.

This section contains following subsections:

- [3.6.1 Country Code Summary](#)
- [3.6.2 Country Code Maintenance](#)

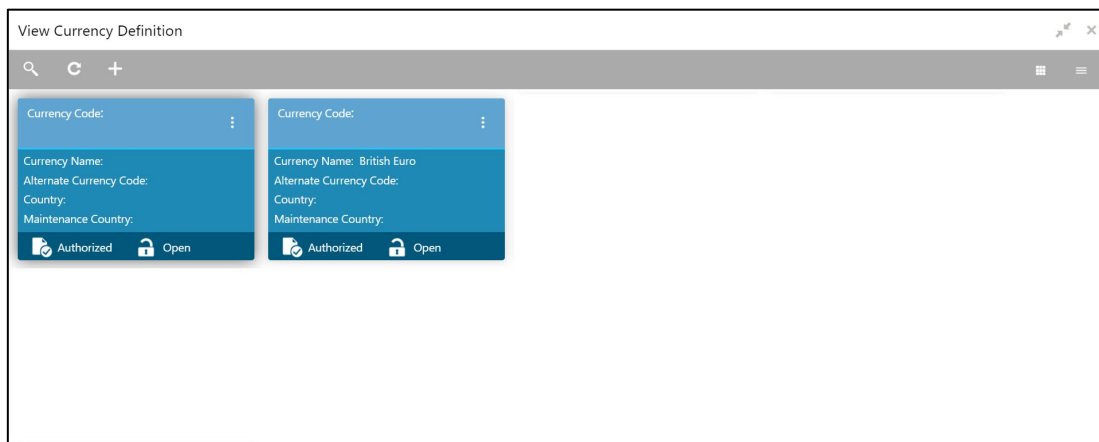
3.6.1 Country Code Summary

The summary screen provides a list of configured country code. You can configure a country code using the [Country Code Maintenance](#). To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Country Code**.
2. Under **Country Code**, click **View Country Code**.

→ The **View Country Code** screen is displayed.

Figure 16: View Country Code



For more information on fields, refer to the field description table below.

Table 23: View Country Code – Field Description

Field	Description
Country Code	Displays the country code details.
Country Name	Displays the name of the country.
ISO Numeric Code	Displays the ISO numeric code details of the country code.
Status	Displays the status of the record.

3.6.2 Country Code Maintenance

The maintenance screen allows you to configure a country code. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Country Code**.
2. Under **Country Code**, click **Create Country Code**.

→ The **Create Country Code** screen is displayed.

Figure 17: Create Country Code

3. On **Create Country Code** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 24: Create Country Code – Field Description

Field	Description
Country Code	Specify the country code.
Country Name	Specify the name of the country.
Alternate Country Code	Specify the alternate country code.
Region Code	Specify the region code.
ISO Country Code	Specify the ISO country code.
ISO Code	Specify the ISO code.
Limit Currency	Specify the limit currency.
Overall Limit	Specify the overall limit.

Field	Description
Blacklist	By default, this is disabled. If selected, indicates the country is blacklisted.
EU Member	By default, this is disabled. If selected, indicates the country is recognized by Swift as a part of the Intra European countries.
Generate 205	By default, this is disabled. If selected, indicates the cover message 205COV or 205 need to be generated for transactions involving this country. If you do not select this option, RTGS, 202 or 202COV message is generated.
IBAN Check Required	By default, this is disabled. If selected, indicates check required for an IBAN is mandatory.
BIC Clearing Code	By default, this is disabled. If selected, indicates the National ID in the BIC plus file is the clearing code. During upload of clearing codes from BIC plus file, the records belong to countries against which this box is selected.
Intra European	By default, this is disabled. If selected, indicates the country is an intra European country.

4. Click **Save**. You can view the configured country code details in the [Country Code Summary](#).

3.7 Currency Definition

You can define the attributes of the currencies in which the bank can deal. For each currency, you can define attributes such as, the SWIFT code for the currency, the country the currency belongs, the interest method, the spot days, the settlement days, and so on.

Currencies can be maintained only at the Head Office. The list of currencies are available to the branches based on the currencies defined for the country linked to the branch.

This section contains following subsections:

- [3.7.1 Currency Definition Summary](#)
- [3.7.2 Currency Definition Maintenance](#)

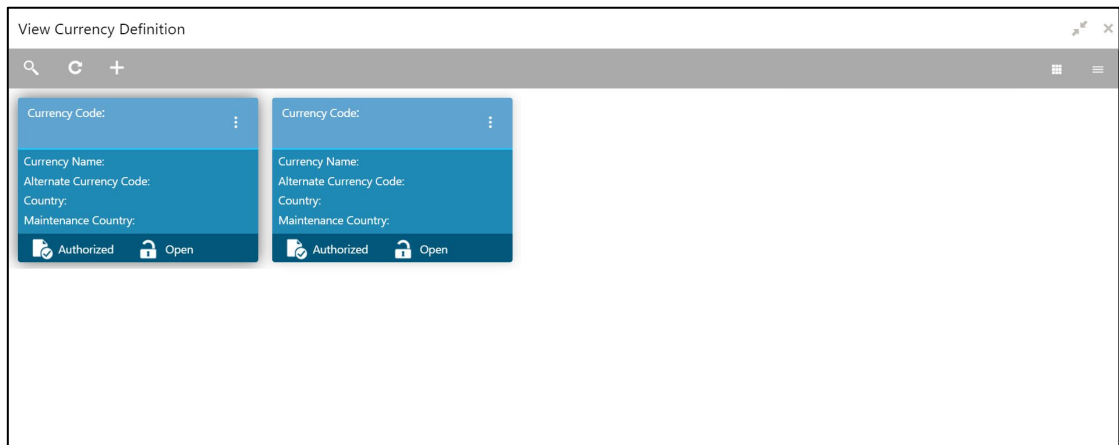
3.7.1 Currency Definition Summary

The summary screen provides a list of defined currency. You can define a currency using the Currency Definition Maintenance. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Currency Definition**.
2. Under **Currency Definition**, click **View Currency Definition**.

→ The **View Currency Definition** screen is displayed.

Figure 18: View Currency Definition



For more information on fields, refer to the field description table below.

Table 25: View Currency Definition – Field Description

Field	Description
Currency Code	Displays the code of the currency.
Currency Name	Displays the name of the currency.
Alternate Currency Code	Displays the code of the alternate currency.

Field	Description
Country	Displays the country associated with the currency.
Maintenance Country	Displays the maintenance country.
Status	Displays the status of the record.

3.7.2 Currency Definition Maintenance

The maintenance screen allows you to define currency. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Currency Definition**.
2. Under **Currency Definition**, click **Create Currency Definition**.
 - The **Create Currency Definition** screen is displayed.

Figure 19: Create Currency Definition

3. On **Create Currency Definition** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 26: Create Currency Definition – Field Description

Field	Description
Currency Code	Specify the currency code.
Maintenance Country	Search and select the required maintenance country.
Currency Name	Specify the name of the currency.
Alternate Currency Code	Specify the code of the alternate currency.
Currency Type	Specify the currency type.
ISO Numerical Currency Code	Specify the International Standardization Organization numerical currency code.
Currency Country	Search and select the required currency country.

Field	Description
Currency Decimals	Select the currency decimals.
Currency Interest Method	Select the currency interest method from the drop-down list.
Currency Spot Days	Select the number of spot working days applicable for the currency.
Foreign Exchange Netting Days	Select the number of days for the foreign exchange netting.
Settlement Message Days	Select the settlement message days.
Position GL	Search and select the required position GL.
Position Equivalent GL	Search and select the required position equivalent GL.
Currency Tolerance Limit	Specify the currency tolerance limit.
Index Base Currency	Search and select the required index base currency.
Commodity Code	By default, this is disabled. If selected, enables a commodity code.
Cut Off Time	Specify the cut off time details.
Cut Off Days	Select the cut off days for the payment transaction involving the currency.
Cut Off Hour	Select the hour of the day for the cut off.
Cut Off Min	Select the minute of the hour for the cut off.
CLS Currency	By default, this is disabled. If selected, allow customers of your bank to settle their FX deals via the CLS (Continuous Linked Settlements) Bank, you can identify the currency to be a CLS Currency. FX deals in the CLS currency is only eligible to be routed through the CLS bank.
Generate 103+	By default, this is disabled. If selected, generate outgoing MT 103 messages in the MT 103 + format.
Index Flag	By default, this is disabled. If selected, derives index rate of the currency.

Field	Description
Euro Conversion Required	By default, this is disabled. If selected, indicates the Euro conversion is required.
New Cover Message Format Required	By default, this is disabled. If selected, indicates a new cover message format is required.
Validate Tag-50F	By default, this is disabled. If selected, indicates validations must be performed for the 50F details captured for the ordering customer during contract input.
Rounding	Specify the Rounding details of currency.
Currency Round Rule	Select the currency round rule from the dropdown list.
Currency Round Unit	Select the currency round unit.
Currency Format Mask	Specify the currency format mask details.
Currency Format Mask	Select one of the currency format.
Euro Type	Specify the Euro Type details.
Currency Euro Type	Select one of the currency Euro type.
Auto Exchange Rate	Specify the Auto exchange rate details.
Credit Auto Exchange Rate Limit	Specify the credit automatic exchange rate limit.
Debit Auto Exchange Rate Limit	Specify the debit automatic exchange rate limit.
Currency Country Mapping	Specify the currency country mapping details.
Country Code	Search and select the required country code.
Country Name	Specify the name of the country.
Currency Code	Search and select the required currency code.

Cut Off Time

Refers to the time by which all transactions involving a currency should be generated. For a currency, you can indicate the cut-off hour and minute. This time should be expressed in the local time of the bank.

The maintenance of a cut-off time for a currency has particular reference to outgoing funds transfers involving it.

Example: The value date of a funds transfer transaction (incoming payment) involving USD, is 3rd June 2018. The number of cut-off days specified for the currency is 2. This means that the payment must be received on or before 1st June 2018. If the payment is received on 1st June, it must be received before the cut-off time specified for USD.

If the USD cut-off time is 1200 hrs, if the payment is received on 1st June 2018, it must be received before 1200 hrs.

4. Click **Save**. You can view the defined currency in the [Currency Definition Summary](#).

3.8 Currency Exchange Rate

You can maintain exchange rates for a currency pair, the rates at which you buy and sell one currency for another. A bank determines its buy and sell rate for a currency pair by applying a spread (that is, its profit margin) to the mid-rate of the currency pair. Mid-rate is the basic rate at which a currency pair is exchanged.

The spread applied for a currency pair varies with the transaction type, while the mid-rate usually remains constant. Consequently, different rates are applicable to different transaction types. For instance dollars in currency are purchased at a certain rate, while USD traveler's checks are bought at a different rate. You can define a rate type which you would like to associate with a transaction type example: CASH, TRAVCHKS, and so on.

You can define the mid-rate, buy and sell spread applicable to each rate type; the buy and sell exchange rates are computed by the system. Buy rates and sell rates can either be maintained by individual branches or can be input by the HO and propagated to all the branches.

If the branch for which the rate is being uploaded or maintained is the head office branch, then the rate would be copied to all those branches that have the same country code as the head office branch.

If the branch for which the rate is being uploaded or maintained is not the head office branch, but it has the same country code as the head office branch, then the rate being uploaded or maintained would be specific to the branch and would not be copied to any other branch.

If the branch for which the rate is being uploaded or maintained is not the head office branch and also does not have the same country code as the head office branch, then the rate being maintained would be copied to all the branches that has the same country code linked as the branch for which the rate is being maintained or uploaded.

This section contains following subsections:

- [3.8.1 Currency Exchange Rate Summary](#)
- [3.8.2 Currency Exchange Rate Maintenance](#)

3.8.1 Currency Exchange Rate Summary

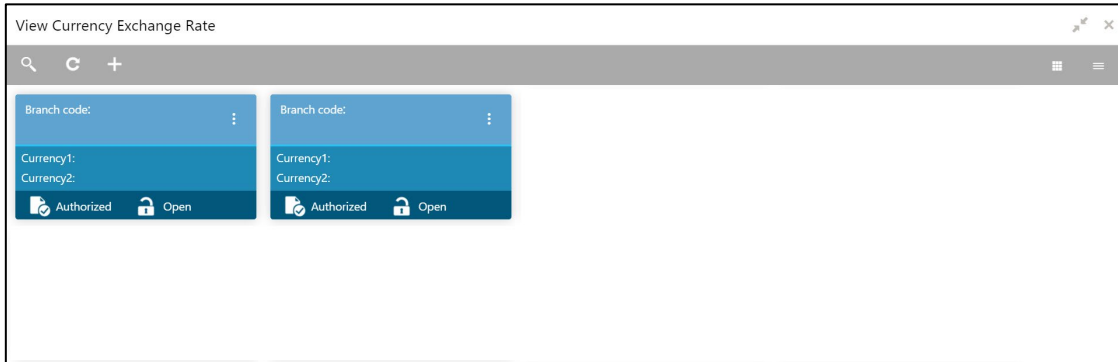
The summary screen provides a list of configured currency exchange rates. You can configure a currency exchange rate using the [Currency Exchange Rate Maintenance](#). To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Currency Exchange Rate**.

2. Under **Currency Exchange Rate**, click **View Currency Exchange Rate**.

→ The **View Currency Exchange Rate** screen is displayed.

Figure 20: View Currency Exchange Rate



For more information on fields, refer to the field description table below.

Table 27: View Currency Exchange Rate – Field Description

Field	Description
Branch Code	Displays the code of the branch.
Currency 1-2	Displays the currency associated with the branch code
Status	Displays the status of the record.

3.8.2 Currency Exchange Rate Maintenance

The maintenance screen allows you to configure a currency exchange rate. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under Core Maintenance, click **Currency Exchange Rate**.
2. Under **Currency Exchange Rate**, click **Create Currency Exchange Rate**.

→ The **Create Currency Exchange Rate** screen is displayed.

Figure 21: Create Currency Exchange Rate

3. On Create Entity screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 28: Create Currency Exchange Rate – Field Description

Field	Description
Branch Code	Search and select the required branch code.
Currency 1	Search and select the required currency.
Currency 2	Search and select the required currency.
Currency Rule	Specify the currency rule details.
Rate Type	Select a rate type from the drop-down list.
Buy Rate	Specify the buy rate details.
Buy Spread	Specify the buy spread details.
Mid Rate	Specify the mid-rate details.

Field	Description
Sale Spread	Specify the sale spread details.
Sale Rate	Specify the sale rate details.
Rate Date	Select a rate date from the drop-down calendar.

4. Click **Save**. You can view the configured currency exchange rate details in the [Currency Exchange Rate Summary](#).

3.9 Currency Holiday Master

You can configure a yearly list of holidays, for the currencies, defined in the currency screen. The system uses the information maintained to check if any settlement involving a foreign currency (in the foreign Exchange, Money market, and Funds Transfer, Loans and Deposit modules) falls on that currency's holiday. If yes, the system displays a message stating and ask the user for an override.

For any schedule or contract maturing at a future date, five years hence, you can input the future date, only if the calendar for that year is maintained. The currency holiday is maintained at the bank level by the Head Office.

This section contains following subsections:

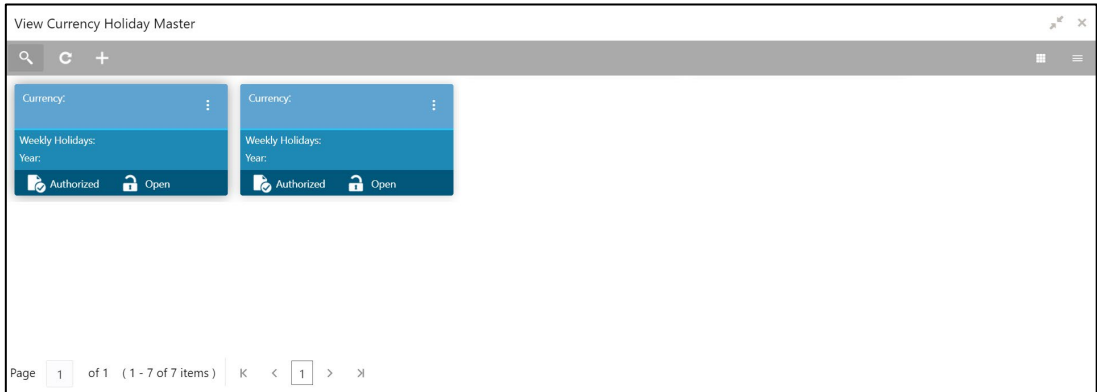
- [3.9.1 Currency Holiday Master Summary](#)
- [3.9.2 Currency Holiday Master Maintenance](#)

3.9.1 Currency Holiday Master Summary

The summary screen provides a list of configured currency holiday. You can configure a currency holiday using the [Currency Holiday Master Maintenance](#). To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Currency Holiday Master**.
2. Under **Currency Holiday Master**, click **View Currency Holiday Master**.
→ The **View Currency Holiday Master** screen is displayed.

Figure 22: View Currency Holiday Master



For more information on fields, refer to the field description table below.

Table 29: View Currency Holiday Master – Field Description

Field	Description
Currency	Displays the currency details.
Weekly Holidays	Displays the weekly holidays associated with the currency.
Status	Displays the status of the record.

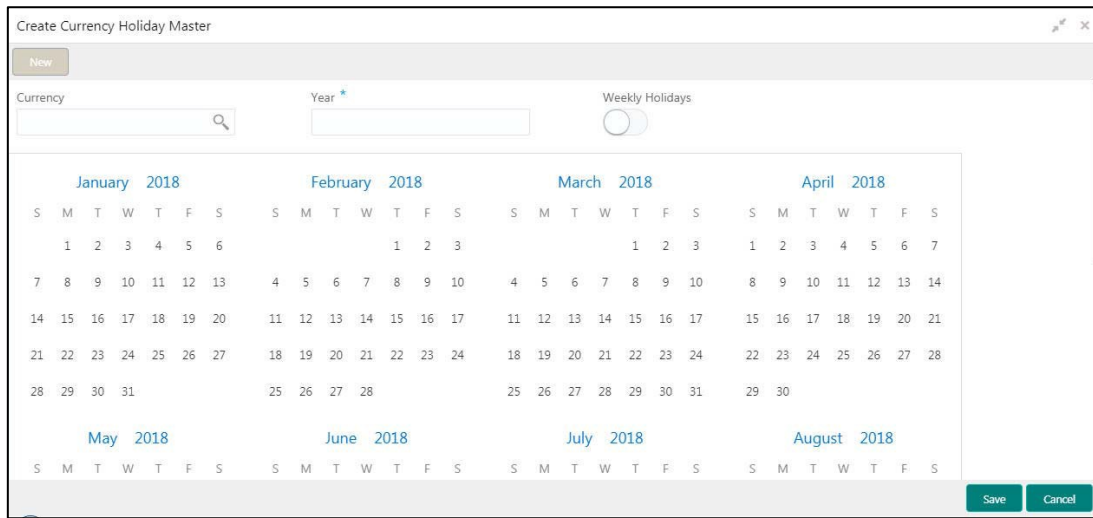
3.9.2 Currency Holiday Master Maintenance

The maintenance screen allows you to configure a currency holiday. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Currency Holiday Master**.
2. Under **Currency Holiday Master**, click **Create Currency Holiday Master**.

→ The **Create Currency Holiday Master** screen is displayed.

Figure 23: Create Currency Holiday Master



3. On **Create Currency Holiday Master** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 30: Create Currency Holiday Master – Field Description

Field	Description
Currency	Search and select the required currency.
Year	Specify the year details.
Weekly Holidays	By default, this is disabled. If selected, indicates the weekly holidays.

4. Select the dates using the calendar. The selected dates appear in blue highlighted circle.
5. Click **Save**. You can view the configured currency holidays in the Currency Holiday Master Summary.

3.10 Currency Pair Definition

In the foreign exchange markets, the exchange rates for some currency pairs such as the USD-GBP or USD-JPY are easily obtainable, since these are frequently traded. The exchange rates of other currencies such as the ZAR-INR (South African Rand - Indian Rupee), which is not traded very often, is determined through a third currency. The third currency is usually the US dollar, since the US dollar is quoted in all trading centers.

You can define the static attributes of currency pairs for which a regular market quote is readily available. For other pairs, which do not have a regular market quote, you need to specify the third currency through which the system should compute the exchange rate. The currency pair is maintained at the bank level by the Head Office branch.

This section contains following subsections:

- [3.10.1 Currency Pair Definition Summary](#)
- [3.10.2 Currency Pair Definition Maintenance](#)

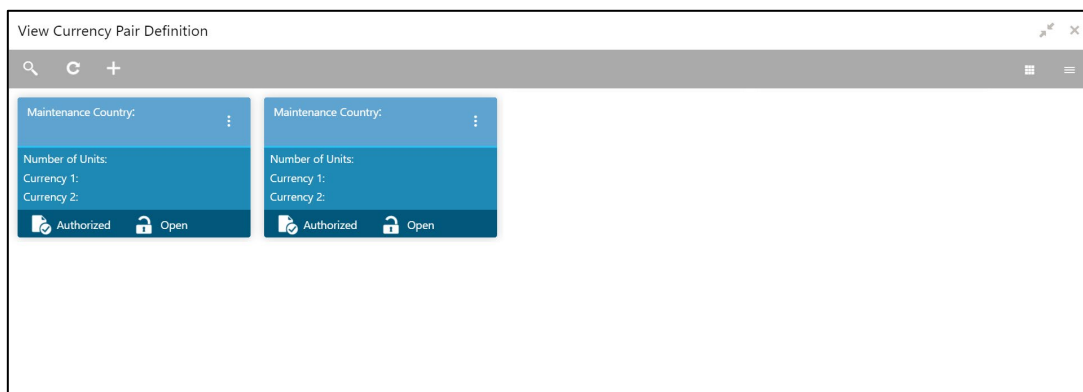
3.10.1 Currency Pair Definition Summary

The summary screen provides a list of define a currency pair. You can define a currency pair using the [Currency Pair Definition Maintenance](#). To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Currency Pair Definition**.
2. Under **Currency Pair Definition**, click **View Currency Pair Definition**.

→ The **View Currency Pair Definition** screen is displayed.

Figure 24: View Currency Pair Definition



For more information on fields, refer to the field description table below.

Table 31: View Currency Pair Definition – Field Description

Field	Description
Maintenance Country	Displays the maintenance country details.
Number of Units	Displays the number of units.
Currency 1-2	Displays the currency associated with the country.
Status	Displays the status of the record.

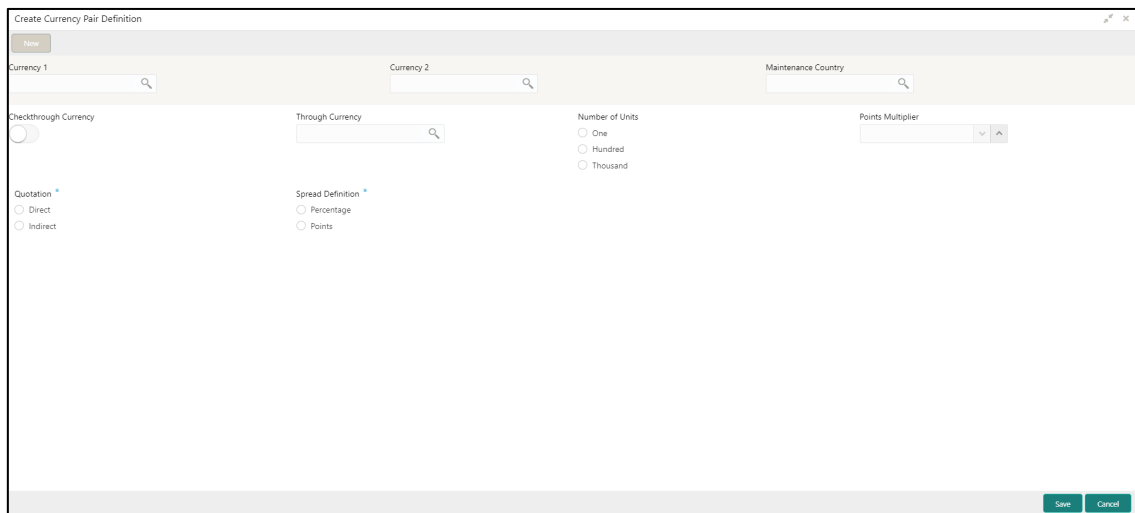
3.10.2 Currency Pair Definition Maintenance

The maintenance screen allows you to define currency pair. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Currency Pair Definition**.
2. Under **Currency Pair Definition**, click **Create Currency Pair Definition**.

→ The **Create Currency Pair Definition** screen is displayed.

Figure 25: Create Currency Pair Definition



3. On **Create Currency Pair Definition** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 32: Create Currency Pair Definition – Field Description

Field	Description
Currency 1-2	<p>Search and select the required currency. A currency pair (specified as currency 1 and currency 2, in the currency pair) represents the two currencies for which you need to maintain exchange rates.</p> <p>To specify the pair, choose from the list provided against Currency 1. Select the pair for which you want to maintain parameters. The pair must be selected according to the quotation method followed by the market, which can be direct or indirect. Exchange rates can be defined for currency 1 against currency 2 or currency 2 against currency 1.</p>
Maintenance Country	Search and select the required maintenance country.
Check through Currency	By default, this is disabled. If selected, indicates a check through currency.
Through Currency	Search and select the required through currency for which the exchange rate between the currencies must be calculated.
Number of Units	Select one of the number of units.
Points Multiplier	Select the points multiplier.
Quotation	<p>Select one of the required quotation:</p> <ul style="list-style-type: none"> Direct method the exchange rate for the currency pair is quoted as follows: Buy rate = mid rate - buy spread Sell rate = mid rate + sell spread Ccy 1 = Rate x Ccy 2 Indirect method the exchange rate for the currency pair is quoted as follows: Buy rate = mid rate + buy spread Sell rate = mid rate - sell spread Ccy 2 = Rate x Ccy 1
Spread Definition	<p>Select one spread definition. The effective spread can be calculated using any of the following two methods:</p> <ul style="list-style-type: none"> Percentage: Spread/100 x mid rate Points: Spread x points multiplier

Field	Description
	<p>The method of spread definition that you specify applies to two instances:</p> <ul style="list-style-type: none"> • While maintaining exchange rates for the currency pair • While maintaining customer spread for the currency pair

4. Click **Save**. You can view the defined currency pair details in the [Currency Pair Definition Summary](#).

3.11 Currency Rate Type

You can configure a currency rate type.

This section contains following subsections:

- [3.11.1 Currency Rate Type Summary](#)
- [3.11.2 Currency Rate Type Maintenance](#)

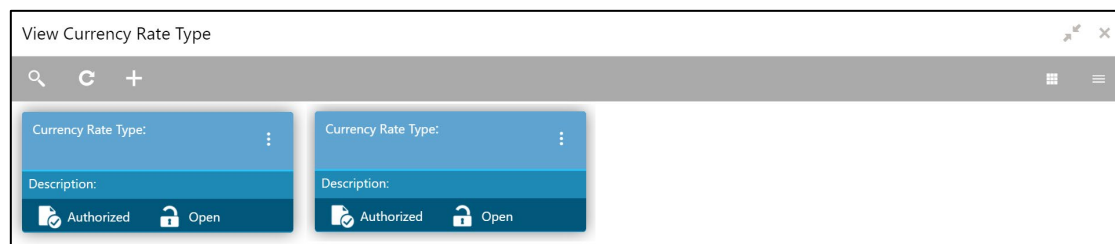
3.11.1 Currency Rate Type Summary

The summary screen provides a list of configured currency rate type. You can configure a currency rate type using the [Currency Rate Type Maintenance](#). To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Currency Rate Type**.
2. Under **Currency Rate Type**, click **View Currency Rate Type**.

→ The **View Currency Rate Type** screen is displayed.

Figure 26: View Currency Rate Type



For more information on fields, refer to the field description table below.

Table 33: View Currency Rate Type – Field Description

Field	Description
Currency Rate Type	Displays the currency rate type.
Description	Displays additional information about the currency rate type.

Status	Displays the status of the record.
---------------	------------------------------------

3.11.2 Currency Rate Type Maintenance

The maintenance screen allows you to configure currency rate type. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Currency Rate Type**.
2. Under **Currency Rate Type**, click **Create Currency Rate Type**.

→ The **Create Currency Rate Type** screen is displayed.

Figure 27: Create Currency Rate Type

3. On **Create Currency Rate Type** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 34: Create Currency Rate Type – Field Description

Field	Description
Currency Rate Type	Specify the currency rate type.
Currency Rate Type Description	Specify additional information about the currency rate type.

4. Click **Save**. You can view the configured currency rate type details in the [Currency Rate Type Summary](#).

3.12 Customer Category

You can configure a customer category.

This section contains following subsections:

- [3.12.1 Customer Category Summary](#)
- [3.12.2 Customer Category Maintenance](#)

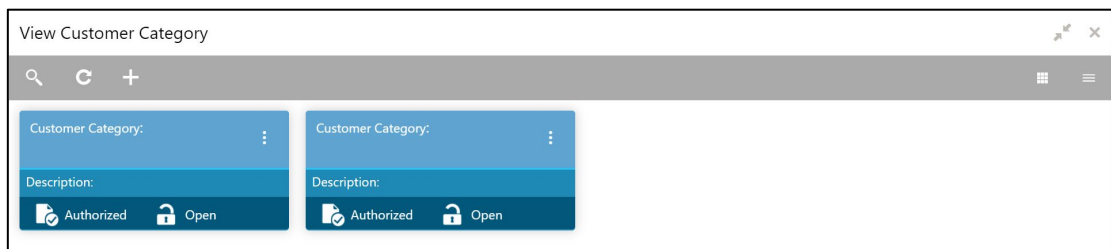
3.12.1 Customer Category Summary

The summary screen provides a list of configured customer category. You can configure a customer category using the [Customer Category Maintenance](#). To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Customer Category**.
2. Under **Customer Category**, click **View Customer Category**.

→ The **View Customer Category** screen is displayed.

Figure 28: View Customer Category



For more information on fields, refer to the field description table below.

Table 35: View Customer Category – Field Description

Field	Description
Customer Category	Displays the customer category.
Description	Displays additional information about the customer category.
Status	Displays the status of the record.

3.12.2 Customer Category Maintenance

The maintenance screen allows you to configure a customer category. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Customer Category**.
2. Under **Customer Category**, click **Create Customer Category**.

→ The **Create Customer Category** screen is displayed.

Figure 29: Create Customer Category

3. On **Create Customer Category** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 36: Create Customer Category – Field Description

Field	Description
Customer Category	Specify the customer category.
Customer Category Description	Specify the additional information about the customer category.
Populate Changes	By default, this is disabled. If selected, displays the changes.

4. Click **Save**. You can view the configured customer category details in the [Customer Category Summary](#).

3.13 ECA System

You can configure the External Credit Approval (ECA) system.

This section contains following subsections:

- [3.13.1 ECA System Summary](#)
- [3.13.2 ECA System Maintenance](#)

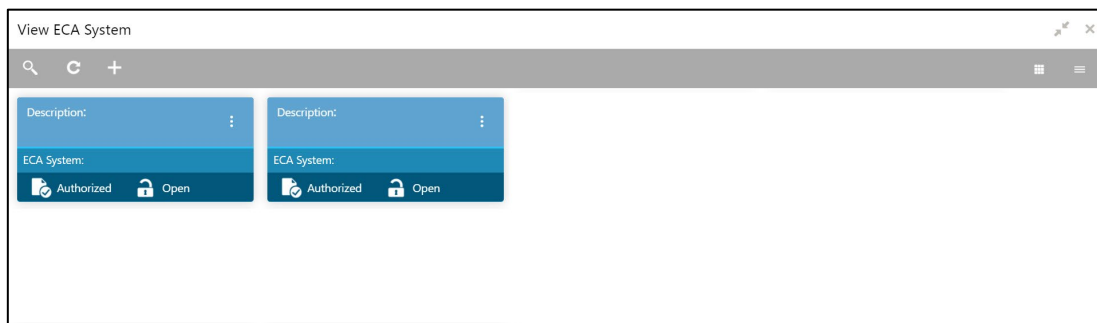
3.13.1 ECA System Summary

The summary screen provides a list of configured ECA system. You can configure the ECA system details using the ECA System Maintenance. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **ECA System**.
2. Under **ECA System**, click **View ECA System**.

→ The **View ECA System** screen is displayed.

Figure 30: View ECA System



For more information on fields, refer to the field description table below.

Table 37: View ECA System – Field Description

Field	Description
Description	Displays any additional information of the ECA system.
ECA System	Displays the name of the ECA system.
Status	Displays the status of the record.

3.13.2 ECA System Maintenance

The maintenance screen allows you to configure ECA system details. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **ECA System**.
2. Under **ECA System**, click **Create ECA System**.

→ The **Create ECA System** screen is displayed.

Figure 31: Create ECA System

3. On **Create ECA System** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 38: Create ECA System – Field Description

Field	Description
Source System	Specify the source system.
Description	Specify the additional information about the ECA system.

4. Click **Save**. You can view the configure ECA system details in the [ECA System Summary](#).

3.14 External Bank Parameters

You can configure bank level parameters.

This section contains following subsections:

- [3.14.1 External Bank Parameters Summary](#)
- [3.14.2 External Bank Parameters Maintenance](#)

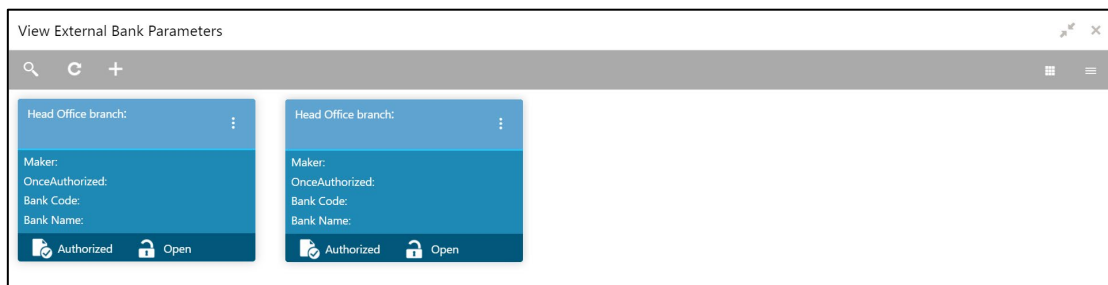
3.14.1 External Bank Parameters Summary

The summary screen provides a list of configured external bank parameters. You can configure the external bank parameters using the [External Bank Parameters Maintenance](#). To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **External Bank Parameters**.
2. Under **External Bank Parameters**, click **View External Bank Parameters**.

→ The **View External Bank Parameters** screen is displayed.

Figure 32: View External Bank Parameters



For more information on fields, refer to the field description table below.

Table 39: View External Bank Parameters – Field Description

Field	Description
Head Office Branch	Displays the head office branch details.
Maker	Displays the name of the user who has configured the bank details.
Once Authorized	Indicates if the record is authorized once or not.
Bank Code	Displays the code of the bank.
Bank Name	Displays the name of the bank.
Status	Displays the status of the record.

3.14.2 External Bank Parameters Maintenance

The maintenance screen allows you to configure external bank parameters. The Bank Code will be auto-created for an entity when the entity is created. Please refer the **View External Bank Parameters** screen for the bank code created. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **External Bank Parameters**.
2. Under **External Bank Parameters**, click **Create External Bank Parameters**.

→ The **Create External Bank Parameters** screen is displayed.

Figure 33: Create External Bank Parameters

3. On **Create External Bank Parameters** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 40: Create External Bank Parameters – Field Description

Field	Description
Bank Code	Specify the code for the bank.
Bank Name	Specify the name of the bank.
Head Office Branch	Search and select the required head office branch.
Branch Description	Based on the Head Office Branch selected, the information is auto-populated.
Number of Days to Forget Customer	Specify the number of days to inactive/forget the customer.

4. Click **Save**. You can view the configure core bank parameter details in the [External Bank Parameters Summary](#).

3.15 External Branch Parameters

You can configure branch level parameters.

This section contains following subsections:

- [3.15.1 External Branch Parameters Summary](#)
- [3.15.2 External Branch Parameters Maintenance](#)

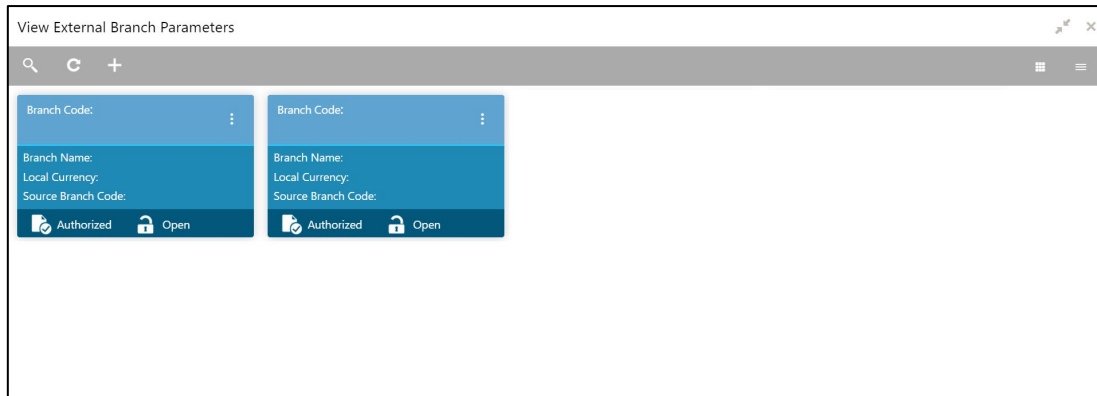
3.15.1 External Branch Parameters Summary

The summary screen provides a list of configured external branch parameters. You can configure the external branch parameters using the [External Branch Parameters Maintenance](#). To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **External Branch Parameters**.
2. Under **External Branch Parameters**, click **View External Branch Parameters**.

→ The **View External Branch Parameters** screen is displayed.

Figure 34: View External Branch Parameters



For more information on fields, refer to the field description table below.

Table 41: View External Branch Parameters – Field Description

Field	Description
Branch Code	Displays the code of the branch associated with the bank.
Branch Name	Displays the name of the branch associated with the bank.
Local Currency	Displays the local currency details.
Source Branch Code	Displays the code of the source branch.
Status	Displays the status of the record.

NOTE: The Branch Parameters for the Head Office (HO) Branch of the entity will get auto-created when the entity is defined in the Multi-Entity Maintenance. Further changes/configuration of the HO Branch can be performed by modifying the record for the HO Branch's Parameters

3.15.2 External Branch Parameters Maintenance

The maintenance screen allows you to configure the branch parameters. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **External Branch Parameters**.
2. Under **External Branch Parameters**, click **Create External Branch Parameters**.

→ The **Create External Branch Parameters** screen is displayed.

Figure 35: Create External Branch Parameters

3. On **Create External Branch Parameters** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 42: Create External Branch Parameters – Field Description

Field	Description
Branch Details	Specify the branch details.
Branch Code	Specify a branch code.
Branch Name	Specify a name for the branch.
Local Currency	Search and select the required local currency.
Source System	Search and select the required source system.
Source Branch Code	Specify a source branch code.
Branch Address	Specify the branch address details.
Address Line 1-3	Specify the address details.
Other Details	Specify the other details.
Host Code	Search and select the required host code.
Country Code	Based on the Host Code selected, the information is auto-populated.
Host Name	Specify the name for the host.

Field	Description
Walk-in Customer	Search and select the required walk-in customer.
Weekly Holiday 1-2	<p>Select a weekly holiday from the dropdown list.</p> <p>Note There are two days of weekly holiday depending on the geographical zone.</p> <ul style="list-style-type: none"> • Auto Authorization: By default, it is disabled. If selected, the record is automatically authorized. • Report DSN: Specify the details of the report DSN.
Swift Address	Specify the swift address details.
SWIFT Address	Search and select the required SWIFT address.
Default BIC	If selected, indicates the selected SWIFT address as the default BIC.

4. Click **Save**. You can view the configure branch parameter details in the [External Branch Parameters Summary](#).

3.16 External Chart Account

You can configure an external chart.

This section contains following subsections:

- [3.16.1 External Chart Account Summary](#)
- [3.16.2 External Chart Account Maintenance](#)

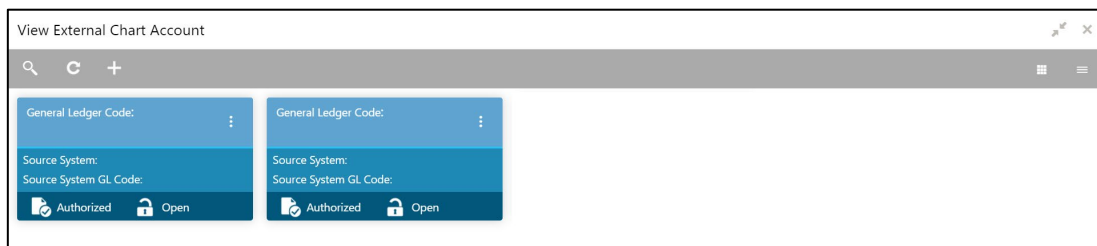
3.16.1 External Chart Account Summary

The summary screen provides a list of configured external chart accounts. You can configure an external chart account using the [External Chart Account Maintenance](#). To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **External Chart Account**.
2. Under **External Chart Account**, click **View External Chart Account**.

→ The **View External Chart Account** screen is displayed.

Figure 36: View External Chart Account



For more information on fields, refer to the field description table below.

Table 43: View External Chart Account – Field Description

Field	Description
General Ledger Code	Displays the code of the general ledger.
Source System	Displays the source system.
Source System GL Code	Displays the GL code of the source system.
Status	Displays the status of the record.

3.16.2 External Chart Account Maintenance

The maintenance screen allows you to configure external chart accounts. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **External Chart Account**.
2. Under **External Chart Account**, click **Create External Chart Account**.

→ The **Create External Chart Account** screen is displayed.

Figure 37: Create External Chart Account

3. On **Create External Chart Account** screen, specify the fields. For more information on fields, refer to the field description table below.

Table 44: Create External Chart Account – Field Description

Field	Description
General Ledger Code	Specify the general ledger code.
General Ledger Description	Specify the additional information about the general ledger.
Source System	Search and select the required source system.
Source System GL Code	Specify the source system GL code.
Category	Select the category from the drop-down list.
Blocked	By default, this is disabled. If selected, indicates the external chart account is blocked.

4. Click **Save**. You can view the configured external chart details in the [External Chart Account Summary](#).

3.17 External Customer

You can configure the external customer details.

This section contains following subsections:

- [3.17.1 External Customer Summary](#)
- [3.17.2 External Customer Maintenance](#)

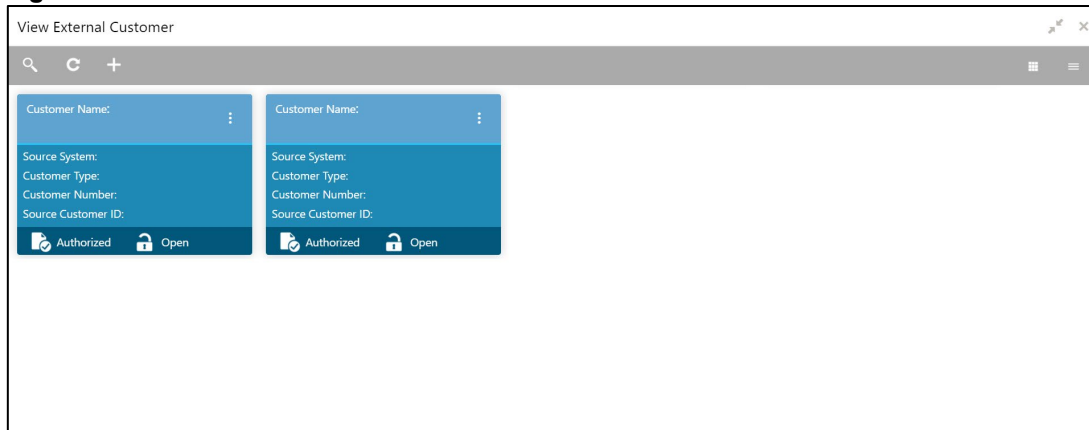
3.17.1 External Customer Summary

The summary screen provides a list of configured external customer details. You can configure the external customers using the [External Customer Maintenance](#). To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **External Customer**.
2. Under **External Customer**, click **View External Customer**.

→ The **View External Customer** screen is displayed.

Figure 38: View External Customer



For more information on fields, refer to the field description table below.

Table 45: View External Customer – Field Description

Field	Description
Customer Name	Displays the name of the customer.
Source System	Displays the source system details.
Customer Type	Displays the type of the customer.
Customer Number	Displays the customer number associated with the customer name.
Source Customer ID	Displays the source of the customer ID associated with the customer name.
Status	Displays the status of the record.

3.17.2 External Customer Maintenance

The maintenance screen allows you to configure the external customer details. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **External Customer**.
2. Under **External Customer**, click **Create External Customer**.

→ The **Create External Customer** screen is displayed.

Figure 39: Create External Customer

3. On **Create External Customer** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 46: Create External Customer – Field Description

Field	Description
Customer Details	Specify the customer details.
Customer Number	Specify the number for the customer.
Customer Name	Specify the name for the customer.
Short Name	Specify the short name for the customer.

Field	Description
Customer Type	Select one of the options: <ul style="list-style-type: none"> • Individual: If selected, the customer is an individual customer. • Corporate: If selected, the customer is a corporate customer. • Bank: If selected, the customer is a bank employee.
Source Customer ID	Specify the source customer ID.
Source System	Search and select the required source system.
Customer Category	Search and select the required customer category.
Relationship Manager ID	Specify the relationship manager ID.
Address	Specify the address details.
Address Line 1-4	Specify the customer address details.
Country	Search and select the required country.
Other Details	Specify the other details.
Postal Code	Specify the postal code details.
Deceased	By default, this is disabled. If selected, indicates the customer is deceased.
Frozen	By default, this is disabled. If selected, indicates the customer account is frozen.
Whereabouts Unknown	By default, this is disabled. If selected, indicates the customer's whereabouts are unknown.
Sanction Check Required	By default, this is disabled. If selected, indicates the sanction check is required.
Walk-in Customer	By default, this is disabled. If selected, indicates a walk-in customer.
Staff	By default, this is disabled. If selected, indicates a staff customer.

Field	Description
Language	Search and select the required language.
Nationality	Search and select the required nationality.

- Click **Save**. You can view the configured external customer details in the [External Customer Summary](#). In addition, the external customers can be directly replicated from the host system using service API.

3.18 External Customer Account

You can configure the external customer account details.

This section contains following subsections:

- [3.18.1 External Customer Account Summary](#)
- [3.18.2 External Customer Account Maintenance](#)

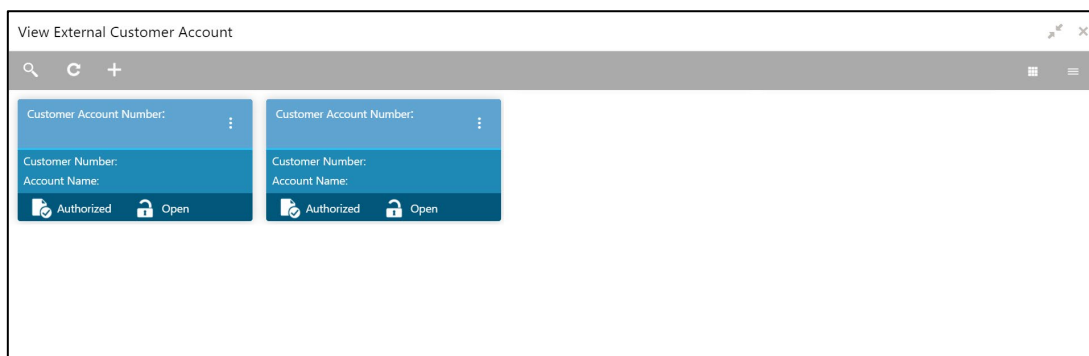
3.18.1 External Customer Account Summary

The summary screen provides a list of configured external customer accounts. You can configure the external customer accounts using the [External Customer Account Maintenance](#). To process this screen, perform the following steps:

- From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **External Customer Account**.
- Under **External Customer Account**, click **View External Customer Account**.

→ The **View External Customer Account** screen is displayed.

Figure 40: View External Customer Account



For more information on fields, refer to the field description table below.

Table 47: View External Customer Account – Field Description

Field	Description
Customer Number	Displays the customer number associated with the account name.
Customer Account Number	Displays the customer account number associated with the account name.
Account Name	Displays the name of the account.
Status	Displays the status of the record.

3.18.2 External Customer Account Maintenance

The maintenance screen allows you to configure external customer account details. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **External Customer Account**.
2. Under **External Customer Account**, click **Create External Customer Account**.

→ The **Create External Customer Account** screen is displayed.

Figure 41: Create External Customer Account

3. On **Create External Customer Account** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 48: Create External Customer Account – Field Description

Field	Description
Account Details	Specify the account details.
Customer Account Number	Specify the customer account number.
Account Name	Specify the name for an account.
Customer Number	Search and select the required customer number.
Customer Name	Based on the Customer Number selected, the information is auto-populated.
Account Currency	Search and select the required account currency.
Account Class	Select the account class from the drop-down list.
Source Account Branch	Search and select the required source account branch.
Source Customer Account	Based on the Source Account Branch selected, the information is auto- populated.
Account IBAN	Specify the account IBAN details.
Address	Specify the address details.
Address Line 1-4	Specify the address details.
Country	Search and select the required country.
Other Details	Specify the other details.
No Credit	By default, this is disabled. If selected, indicates the account does not have any credit facility.
No Debit	By default, this is disabled. If selected, indicates the account does not have any debit facility.
Blocked	By default, this is disabled. If selected, indicates the account status is blocked.
Frozen	By default, this is disabled. If selected, indicates the account status is frozen.

Field	Description
Dormant	By default, this is disabled. If selected, indicates the account status is dormant.
External Credit Approval Required	By default, this is disabled. If selected, indicates ECA check is required for the external customer account.
External Credit Approval System	Search and select the required external credit approval system.
Host Code	Specify the host code details.
Account Open Date	Select an effective date for the account from the dropdown calendar.

- Click **Save**. You can view the configured external customer account details in the [External Customer Account Summary](#). In addition, the external customer accounts can be directly replicated from the host system using service API.

3.19 External Customer Account Structured Address

You can configure the external customer account structured address details.

This section contains following subsections:

- [3.19.1 View External Customer Account Structured Address](#)
- [3.19.2 Create External Customer Account Structured Address](#)

3.19.1 View External Customer Account Structured Address

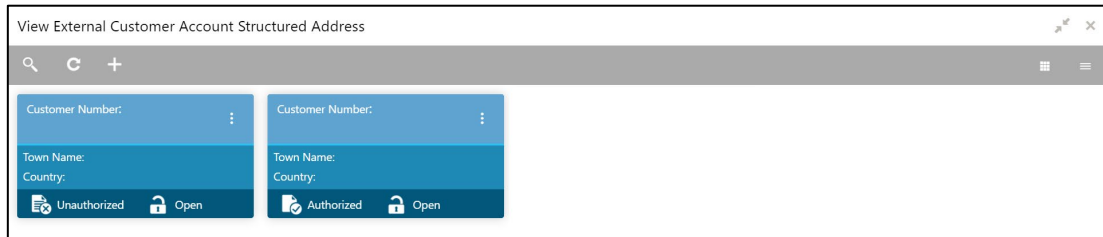
The summary screen provides a list of configured external customer account structured addresses.

You can configure the external customer account structured address using the [Create External Customer Account Structured Address](#). To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **External Customer Account Structured Address**.
2. Under **External Customer Account Structured Address**, click **View External Customer Account Structured Address**.

→ The **View External Customer Account Structured Address** screen is displayed.

Figure 42: View External Customer Account Structured Address



For more information on fields, refer to the field description table below.

Table 49: View External Customer Account Structured Address – Field Description

Field	Description
Customer Number	Displays the customer number.
Town Name	Displays the town name of the customer.
Country	Displays the country of the customer.

3.19.2 Create External Customer Account Structured Address

The maintenance screen allows you to configure external customer account structured address. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **External Customer Account Structured Address**.
2. Under **External Customer Account Structured Address**, click **Create External Customer Account Structured Address**.

→ The **Create External Customer Account Structured Address** screen is displayed.

Figure 43: Create External Customer Account Structured Address

3. On **Create External Customer Account Structured Address** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 50: Create External Customer Account Structured Address – Field Description

Field	Description
Account Details	Specify the account details.
Customer Account	Search and select the required customer account.
Account Name	Specify the name for an account.
Structured Address	Specify the structured address details.
Department	Specify the department.
Sub Department	Search and select the required country.
Street Name	Specify the street name.

Field	Description
Building Number	Specify the building number.
Building Name	Specify the building name.
Floor	Specify the floor.
Post Box	Specify the post box details.
Room	Specify the room number.
Post Code	Specify the post code.
Town Name	Specify the town name.
Town Location Name	Specify the town location name.
District Name	Specify the district name.
Country Sub Division	Specify the country sub division.
Country	Specify the country name.

4. Click **Save**. You can view the configured external customer structured address details in [View External Customer Account Structured Address](#).

3.20 External Virtual Account Structured Address

You can view the external virtual account structured address details.

This section contains following subsections:

- [3.20.1 View External Virtual Account Structured Address](#)

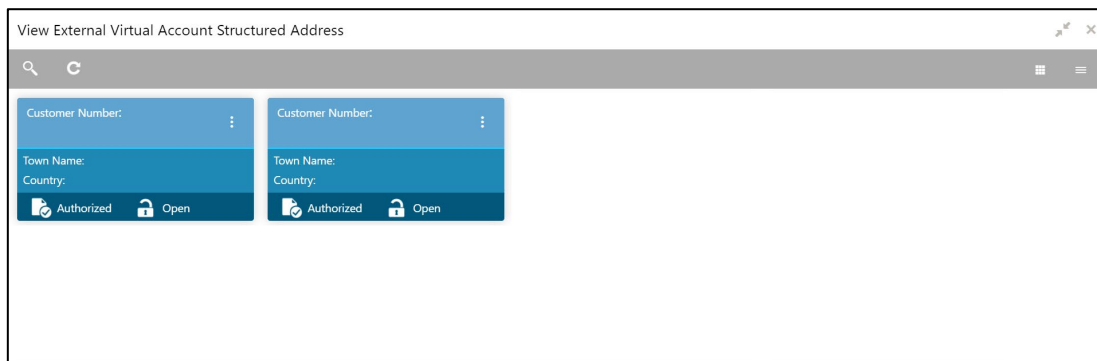
3.20.1 View External Virtual Account Structured Address

The summary screen provides a list of configured virtual account structured addresses. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **External Virtual Account Structured Address**.
2. Under **External Virtual Account Structured Address**, click **View External Virtual Account Structured Address**.

→ The **View External Virtual Account Structured Address** screen is displayed.

Figure 44: View External Virtual Account Structured Address



For more information on fields, refer to the field description table below.

Table 51: View External Virtual Account Structured Address – Field Description

Field	Description
Customer Number	Displays the customer number.
Town Name	Displays the town name.
Country	Displays the country name.

Click on the specific tile to view the structured address details.

3.21 Forget Process

The Personally identifiable information (PII) is any data that could potentially identify a specific individual. PII data access can be controlled based on the user role and you can configure details of a customer who wants to be forgotten if the customer withdraws/does not avail the virtual account facility.

This section contains following subsections:

- [3.21.1 Forgotten Customers Summary](#)
- [3.21.2 Forget Customer Maintenance](#)

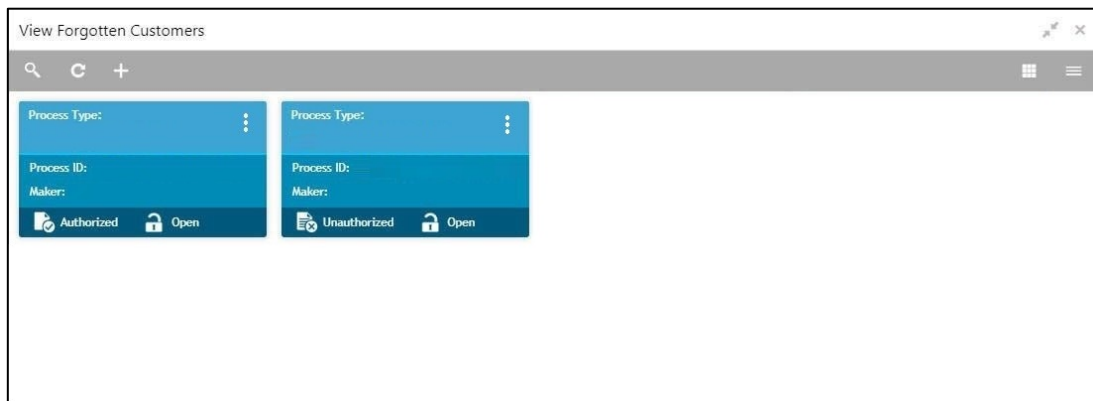
3.21.1 Forgotten Customers Summary

The summary screen provides a list of configured customer to be forgotten. You can configure a customer detail who wants to be forgotten using the [Forget Customer Maintenance](#). To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Forget Process**.
2. Under **Forget Process**, click **View Forgotten Customer**.

→ The **View Forgotten Customer** screen is displayed.

Figure 45: View Forgotten Customers



For more information on fields, refer to the field description table below.

Table 52: View Forgotten Customers – Field Description

Field	Description
Process Type	Indicates if the process is initiated by the customer/bank
Process ID	Displays the forgotten customer's process ID.
Maker	Displays the name of the user who has configured the forgotten customer details.
Status	Displays the status of the record.

3.21.2 Forget Customer Maintenance

The maintenance screen allows you to configure a customer to be forgotten. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Forget Process**.
2. Under **Forget Process**, click **Forget Customer**.

→ The **Forget Customer** screen is displayed.

Figure 46: Forget Customer

3. On **Forget Customer** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 53: Forget Customer – Field Description

Field	Description
Forget Customer Process ID	Specify a forget customer process ID.
Forget Customer Process Type	Select one of the options <ul style="list-style-type: none"> • Customer Initiated: If selected, indicates the customer has initiated the process. • Bank Initiated: If selected, indicates the bank has initiated the process.

4. Click + to add a row and provide the customer/bank details.
5. Click **Save**. You can view the configured forgotten customers in the [Forgotten Customers Summary](#).

3.22 Host Code

You can group branches in the same zone or region under a host for specific processing. You can have multiple hosts depending on processing requirements.

This section contains following subsections:

- [3.22.1 Host Code Summary](#)
- [3.22.2 Host Code Maintenance](#)

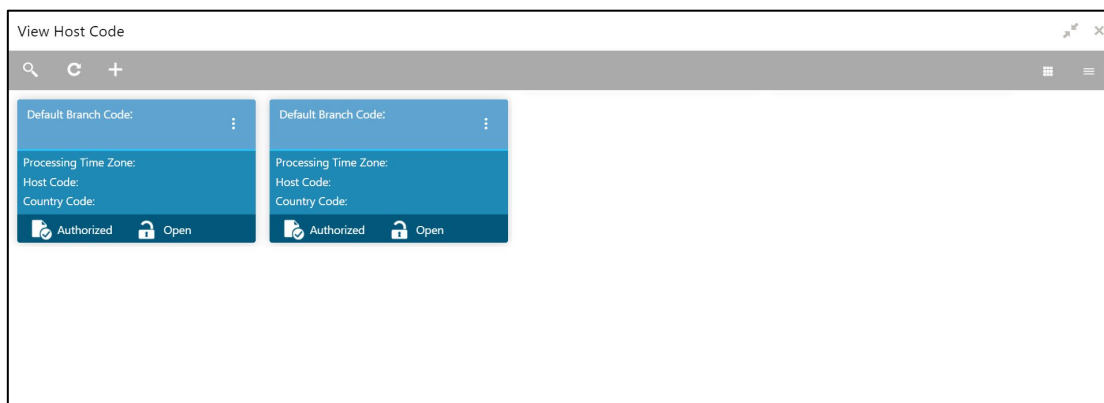
3.22.1 Host Code Summary

The summary screen provides a list of configured host codes. You can configure the host code using the [Host Code Maintenance](#). To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Host Code**.
2. Under **Host Code**, click **View Host Code**.

→ The **View Host Code** screen is displayed.

Figure 47: View Host Code



For more information on fields, refer to the field description table below.

Table 54: View Host Code – Field Description

Field	Description
Default Branch Code	Displays the default branch code associated with the host code.
Processing Time Zone	Displays the processing time zone.
Host Code	Displays the host code details.
Country Code	Displays the country code details.
Status	Displays the status of the records.

3.22.2 Host Code Maintenance

The maintenance screen allows you to configure host code. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Host Code**.
2. Under **Host Code**, click **Create Host Code**.

→ The **Create Host Code** screen is displayed.

Figure 48: Create Host Code

3. On **Create Host Code** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 55: Create Host Code – Field Description

Field	Description
Host Code	Specify the host code details.
Description	Specify the additional information about the host code.
Country Code	Search and select the required country code.
Processing Time Zone	Specify the processing time zone details.
Default Branch Code	Search and select the required default branch code.

4. Click **Save**. You can view the configured host code details in the [Host Code Summary](#).

3.23 Language Code

You can configure a language code.

This section contains following subsections:

- [3.23.1 Language Code Summary](#)
- [3.23.2 Language Code Maintenance](#)

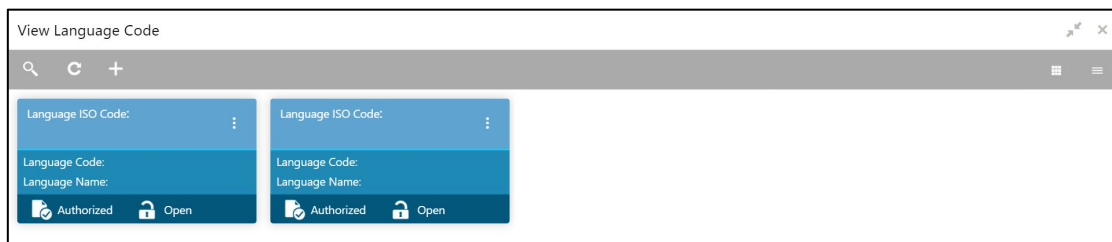
3.23.1 Language Code Summary

The summary screen provides a list of configured language code. You can configure a language code using the [Language Code Maintenance](#). To process this screen, perform the following steps:

1. From **Home** screen, **Core Maintenance**. Under **Core Maintenance**, click **Language Code**.
2. Under **Language Code**, click **View Language Code**.

→ The **View Language Code** screen is displayed.

Figure 49: View Language Code



For more information on fields, refer to the field description table below.

Table 56: View Language Code – Field Description

Field	Description
Language ISO Code	Displays the default branch code associated with the host code.
Language Code	Displays the processing time zone.
Language Name	Displays the host code details.
Status	Displays the status of the records.

3.23.2 Language Code Maintenance

The maintenance screen allows you to configure a language code. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Language Code**.
2. Under **Language Code**, click **Create Language Code**.

→ The **Create Language Code** screen is displayed.

Figure 50: Create Language Code

3. On **Create Language Code** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 57: Create Language Code – Field Description

Field	Description
Language Code	Specify the code for the language.
Language Name	Specify the name for the language associated with the language code.
Display Direction	Specify the display direction.
Language ISO Code	Specify the language ISO code.

4. Click **Save**. You can view the configured language code details in the [Language Code Summary](#).

3.24 Local Holiday

You can configure a local holiday.

This section contains following subsections:

- [3.24.1 Local Holiday Summary](#)
- [3.24.2 Local Holidays Maintenance](#)

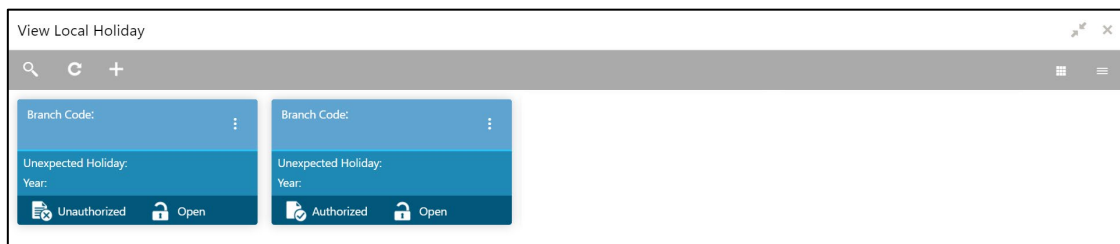
3.24.1 Local Holiday Summary

The summary screen provides a list of configured local holidays. You can configure a local holiday using the [Local Holidays Maintenance](#). To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Local Holiday**.
2. Under **Local Holiday**, click **View Local Holiday**.

→ The **View Local Holiday** screen is displayed.

Figure 51: View Local Holiday



For more information on fields, refer to the field description table below.

Table 58: View Local Holiday – Field Description

Field	Description
Branch Code	Displays the code of the branch.
Unexpected Holiday	Indicates if the record is an unexpected holiday.
Year	Displays the year of the holiday.
Status	Displays the status of the record.

3.24.2 Local Holidays Maintenance

The maintenance screen allows you to configure local holidays. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Local Holiday**.
2. Under **Local Holiday**, click **Create Local Holiday**.

→ The **Create Local Holiday** screen is displayed.

Figure 52: Create Local Holiday

3. On **Create Local Holiday** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 59: Create Local Holiday – Field Description

Field	Description
Branch Code	Search and select the required branch code.
Year	Specify the year details.
Weekly Holidays	By default, this is disabled. If selected, you can define weekly holidays.
Unexpected Holidays	By default, this is disabled. If selected, you can define unexpected holidays.

4. Select the dates using the calendar. The selected dates appear in pink highlighted circle.
5. Click **Save**. You can view the configured local holiday details in the Local Holiday Summary.

3.25 Media

You can configure media information.

This section contains following subsections:

- [3.25.1 Media Summary](#)
- [3.25.2 Media Maintenance](#)

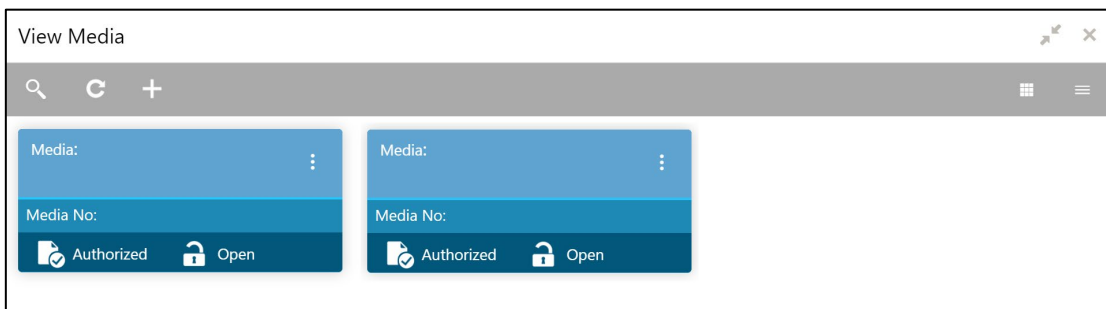
3.25.1 Media Summary

The summary screen provides a list of configured media. You can configure a media using the Media Maintenance. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Media**.
2. Under **Media**, click **View Media**.

→ The **View Media** screen is displayed.

Figure 53: View Media



For more information on fields, refer to the field description table below.

Table 60: View Media – Field Description

Field	Description
Media	Displays the name of the media.
Media Number	Displays the number of the media.
Status	Displays the status of the record.

3.25.2 Media Maintenance

The maintenance screen allows you to configure media. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Media**.
2. Under **Media**, click **Create Media**.

→ The **Create Media** screen is displayed.

Figure 54: Create Media

3. On **Create Media** screen, specify the fields. The fields, which are marked with asterisk, are mandatory. For more information on fields, refer to the field description table below.

Table 61: Create Media – Field Description

Field	Description
Media Code	Specify a unique media code to identify while associating with an advice.
Media Description	Specify additional information about the media.
Media Number	Specify a unique number for the media type.
Message Terminator	Specify the padded characters to mark the end of an incoming messages.
Message Suffix	Specify the padding characters to mark the end of an outgoing messages.
Stop Process	By default, this option is disabled. If selected, halts the processing of incoming and outgoing messages.

Field	Description
Padding Required	By default, this option is disabled. If selected, pads the characters in every outgoing messages.
TW (Test Word) Required Status	By default, this option is disabled. If selected, enables the option for word testing.
Media Priority	Select a media priority from the spin box. When a message is dispatched to the customers, the media type used for sending the messages will be the one that is on high priority.
Number of Character	Select a number the padding characters should be repeated for the advice from the spin box.
Media Details	Specify the media details.
Media Code	Specify the unique media code to identify while associating with an advice.
Compatible Media	By default, this option is disabled. If selected, indicates the media is compatible.

4. Click **Save**. You can view the configured media details in the [Media Summary](#).

3.26 Multi-Currency Account Linkage

The Multi-Currency Account (MCA) linkage enables the user to link the sub-accounts to a core multi-currency account. This section contains following subsections:

- [3.26.1 Create MCA Linkage](#)
- [3.26.2 View MCA Linkage](#)

3.26.1 Create MCA Linkage

This maintenance screen allows you to link the sub-accounts to a core multi-currency account. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Multi-Currency Account Linkage**.
2. Under **Multi-Currency Account Linkage**, click **Create MCA Linkage**.

→ The **Create MCA Linkage** screen is displayed.

Figure 55: Create MCA Linkage

On **Create MCA Linkage** screen, specify the fields. The fields, which are marked with asterisk, are mandatory. For more information on fields, refer to the field description table below.

Table 62: Create MCA Linkage – Field Description

Field	Description
Multi-Currency Account No	Click search icon, and select the multi-currency account number from the list of values.
Sub Accounts	Displays the details of the sub accounts.
Currency Code	Specify the currency code of the sub account.
Account Number	Specify the account number of the sub account.

Field	Description
Primary	Select Yes , if the sub account is Primary. If it is not Primary, select No .

3. Click **Save**. You can view the configured sub-account details in the [View MCA Linkage](#).

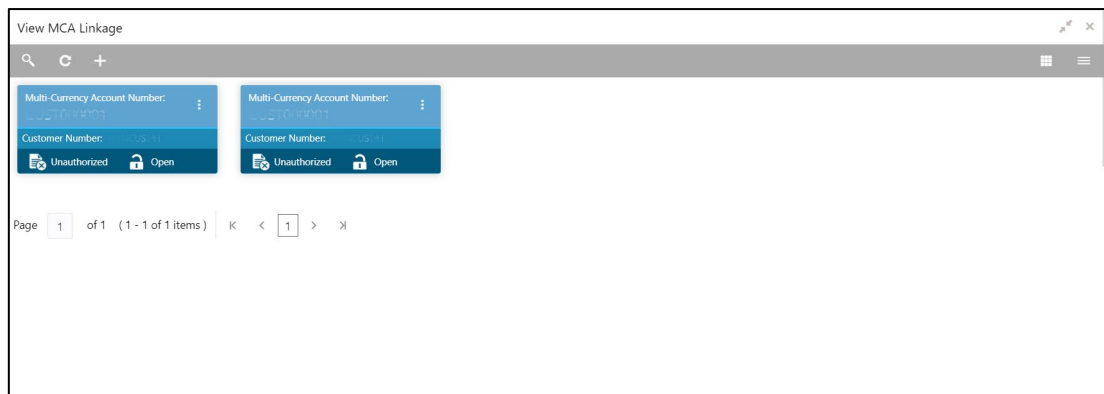
3.26.2 View MCA Linkage

This summary screen provides a list of configured sub-accounts to a core multi-currency account. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Multi-Currency Account Linkage**.
2. Under **Multi-Currency Account Linkage**, click **View MCA Linkage**.

→ The **View MCA Linkage** screen is displayed.

Figure 56: View MCA Linkage



For more information on fields, refer to the field description table below.

Table 63: View MCA Linkage – Field Description

Field	Description
Multi-Currency Account Number	Displays the multi-currency account number.
Customer Number	Displays the customer number.
Status	Displays the status of the record.

3.27 Process Code

Process code enables the user to set the process code to the individual stages according to the process.

This section contains following subsections:

- [3.27.1 View Process Code](#)
- [3.27.2 Process Code Maintenance](#)

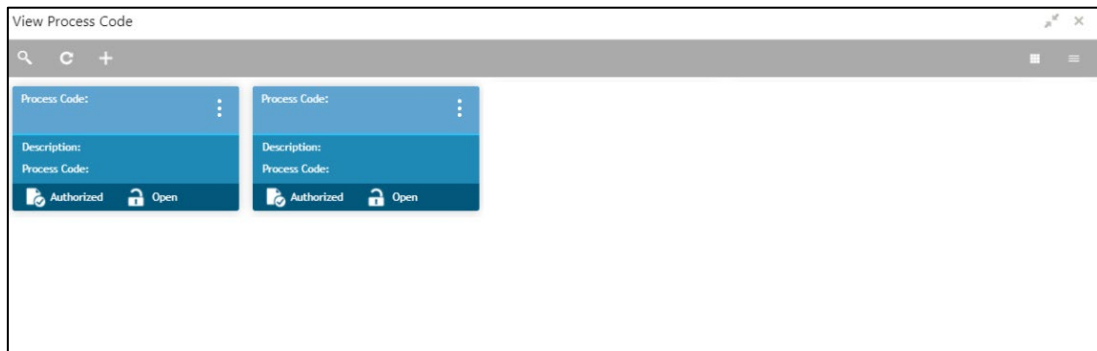
3.27.1 View Process Code

The summary screen provides a list of configured process codes. You can add a process code using the [Process Code Maintenance](#). To process this screen, perform the following steps:

3. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Process Code**.
4. Under **Process Code**, click **View Process Code**.

→ The **View Process Code** screen is displayed.

Figure 57: View Process Code



For more information on fields, refer to the field description table below.

Table 64: View Process Code – Field Description

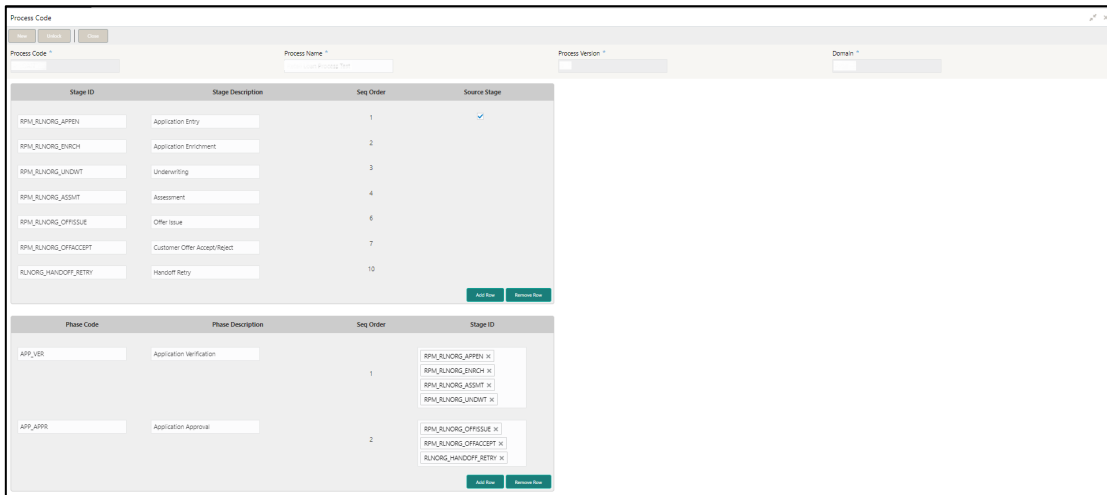
Field	Description
Process Code	Displays the process code.
Description	Displays the description of process code.
Status	Displays the status of the record.

3.27.2 Process Code Maintenance

Process Code Maintenance screen allows you to define the stages for a particular process. The process code information that is defined in this screen will be used in further business processing to construct the stages. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Process Code**.
→ The **Process Code** screen is displayed.

Figure 58: Process Code



2. On **Process Code** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 65: Process Code – Field Description

Field	Description
Process Code	Specify the code.
Process Name	Specify the process name.
Process Version	Specify the process version.
Domain	Specify the process domain.
Stage ID	Specify the unique stage ID.
Stage Description	Specify the stage description.
Seq Order	Displays the sequential order of the stage in the entire process.
Source Stage	Select it to indicate if the specific stage is the source stage of the process.

Field	Description
Add Row	Click Add Row to add a row and to capture the stage details that needs to be mapped to the process code.
Delete Row	Click Delete Row to delete a row with stage details.
Phase Code	Specify the phase code.
Phase Description	Specify the phase description.
Seq Order	Displays the sequential order of the phase.
Stage ID	Select the stage ID from the drop down list. Available options in the drop-down will be based on Stage ID mentioned at Process Code level.
Add Row	Click Add Row to add a row and to capture the phase details that needs to be mapped to the process code.
Delete Row	Click Delete Row to delete a row with phase details.

3. Click **Save**. You can view the configured process codes in the [View Process Code](#).

3.28 System Dates

You can view the system date details.

This section contains following subsections:

- [3.28.1 System Dates Summary](#)

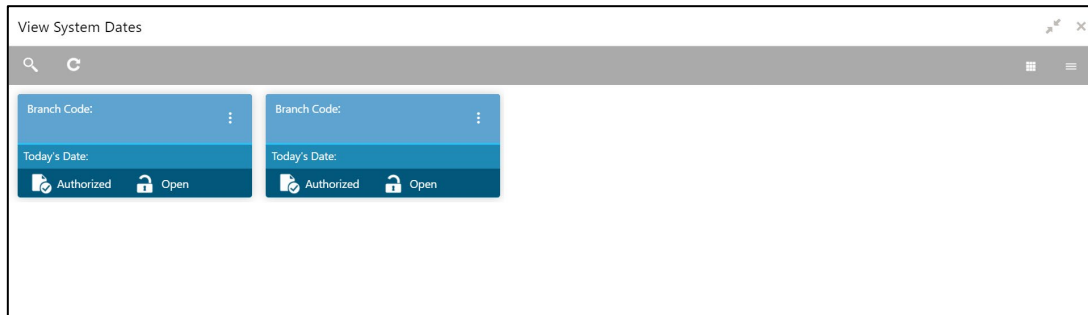
3.28.1 System Dates Summary

The summary screen provides a list of configured system date. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **System Dates**.
2. Under **System Dates**, click **View System Dates**.

→ The **View System Dates** screen is displayed.

Figure 59: View System Dates



For more information on fields, refer to the field description table below.

Table 66: View System Dates – Field Description

Field	Description
Branch Code	Displays the code of the branch.
Today's Date	Displays system's current date.
Today's Date in Text	Displays the system's current date in words.
Status	Displays the status of the record.

NOTE: When the entity is created from the Multi-Entity Maintenances, the System Dates for the Head Office (HO) Branch would be automatically created

3.29 Transaction Code

You can configure the transaction code.

This section contains following subsections:

- [3.29.1 Transaction Code Summary](#)
- [3.29.2 Transaction Code Maintenance](#)

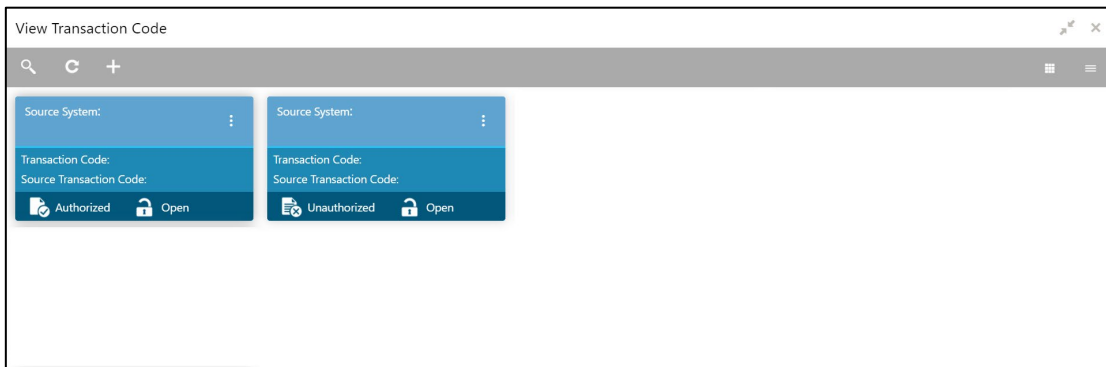
3.29.1 Transaction Code Summary

The summary screen provides a list of configured transaction code. You can configure a transaction code using the [Transaction Code Maintenance](#). To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Transaction Code**.
2. Under **Transaction Code**, click **View Transaction Code**.

→ The **View Transaction Code** screen is displayed.

Figure 60: View Transaction Code



For more information on fields, refer to the field description table below.

Table 67: View Transaction Code – Field Description

Field	Description
Source System	Displays the source system details.
Transaction Code	Displays the transaction code details.
Source Transaction Code	Displays the source transaction code associated with the transaction code.
Status	Displays the status of the record,

3.29.2 Transaction Code Maintenance

The maintenance screen allows you to configure transaction code details. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Transaction Code**.
2. Under **Transaction Code**, click **Create Transaction Code**.

→ The **Create Transaction Code** screen is displayed.

Figure 61: Create Transaction Code

3. On **Create Transaction Code** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 68: Create Transaction Code – Field Description

Field	Description
Transaction Code	Specify the transaction code details.
Description	Specify additional information about the transaction code.
Source System	Search and select the required source system.
Source Transaction Code	Specify the source transaction code details.

4. Click **Save**. You can view the configured transaction code details in the [Transaction Code Summary](#).

3.30 Upload Source

You can upload a source code.

This section contains following subsections:

- [3.30.1 Upload Source Summary](#)
- [3.30.2 Upload Source Maintenance](#)

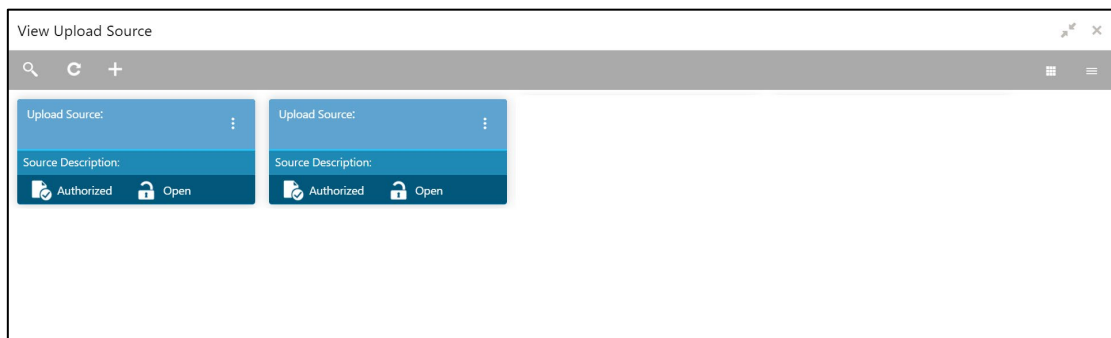
3.30.1 Upload Source Summary

The summary screen provides a list of configured source code. You can upload a source code using the [Upload Source Maintenance](#). To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Upload Source**.
2. Under **Upload Source**, click **View Upload Source**.

→ The **View Upload Source** screen is displayed.

Figure 62: View Upload Source



For more information on fields, refer to the field description table below.

Table 69: View Upload Source – Field Description

Field	Description
Upload Source	Displays the upload source details.
Source Description	Displays information about the source code.
Status	Displays the status of the record.

3.30.2 Upload Source Maintenance

The maintenance screen allows you to upload source. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Upload Source**.
2. Under **Upload Source**, click **Create Upload Source**.

→ The **Create Upload Source** screen is displayed.

Figure 63: Create Upload Source

3. On **Create Upload Source** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 70: Create Upload Source – Field Description

Field	Description
Source Code	Specify the source code details.
Source Description	Specify additional information of the source code.
Base Data from Flexcube	By default, this is disabled. If selected, indicates the base data is from FLEXCUBE.
System Authorization Required	By default, this is disabled. If selected, indicates the system requires authorization.

4. Click **Save**. You can view the configured upload source details in the [Upload Source Summary](#).

3.31 Upload Source Preference

You can configure upload source preference.

This section contains following subsections:

- [3.31.1 Upload Source Preference Summary](#)
- [3.31.2 Upload Source Preference Maintenance](#)

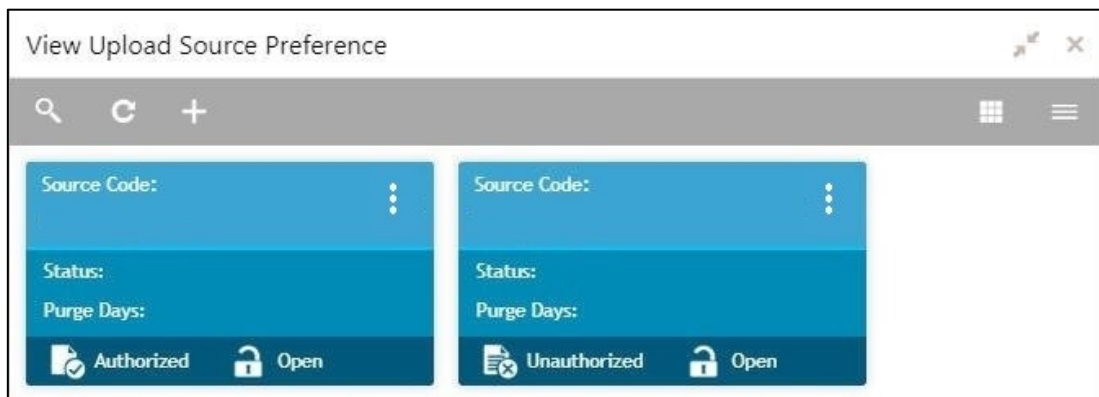
3.31.1 Upload Source Preference Summary

The summary screen provides a list of configured upload source preferences. You can configure an upload source preference using the [Upload Source Preference Maintenance](#). To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Upload Source Preference**.
2. Under **Upload Source Preference**, click **View Upload Source Preference**.

→ The **View Upload Source Preference** screen is displayed.

Figure 64: View Upload Source Preference



For more information on fields, refer to the field description table below.

Table 71: View Upload Source Preference – Field Description

Field	Description
Source Code	Displays the code of the source.
Status	Displays the status of the post upload.
Purge Days	Displays the number of purge days.
Status	Displays the status of the record.

3.31.2 Upload Source Preference Maintenance

The maintenance screen allows you to configure upload source preference. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Upload Source Preference**.
2. Under **Upload Source Preference**, click **Create Upload Source Preference**.

→ The **Create Upload Source Preference** screen is displayed.

Figure 65: Create Upload Source Preference

3. On **Create Upload Source Preference** screen, specify the fields. For more information on fields, refer to the field description table below.

Table 72: Create Upload Source Preference – Field Description

Field	Description
Source Code	Search and select the required source code.
Error Handling	Specify the error handling details.
On Error	Select an error from the drop-down list.
On Override	Select an override from the drop-down list.
On Repairable Exception	Select the repairable exception from the drop-down list.
On Queue Exception	Select the queue exception from the drop-down list.
Post Upload	Specify the post upload details.
Status	Select a status from the dropdown list.

Field	Description
Purge Days	Specify the purging days if you want to maintain any days to be purged while processing interface.
Allow Deferred Processing	By default, this is disabled. If selected, defers process the upload source preference.
Allow EOD with Deferred	By default, this is disabled. If selected, processes the EOD with deferred.
Deletion Allowed	By default, this is disabled. If selected, deletes the upload source preferences.
Reverse Allowed	By default, this is disabled. If selected, reverses the upload source preferences.
Amend Allowed	By default, this is disabled. If selected, amends the upload source preferences.
Proceed with EOD	By default, this is disabled. If selected, proceeds with the EOD.

4. Click **Save**. You can view the configured upload source preference details in the [Upload Source Preference Summary](#).

3.32 Pricing Source System

You can configure the pricing source system.

This section contains following subsections:

- [3.32.1 Pricing Source System Summary](#)
- [3.32.2 Pricing Source System Maintenance](#)

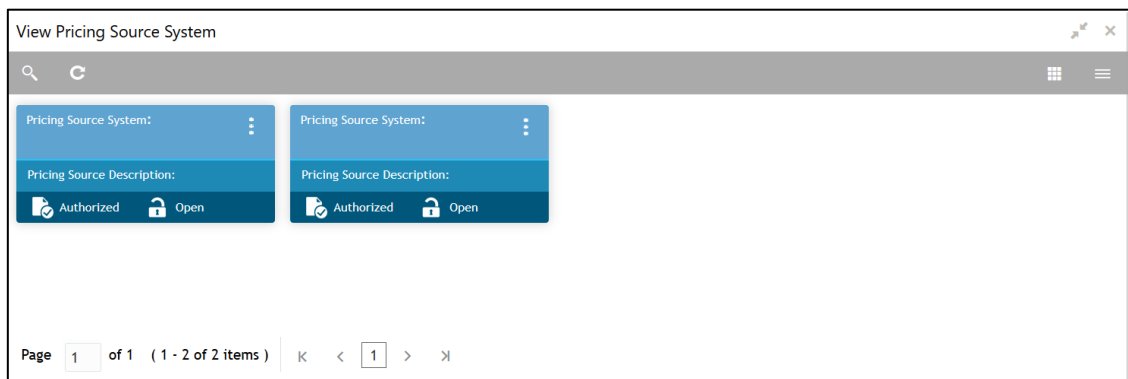
3.32.1 Pricing Source System Summary

The summary screen provides a list of configured Pricing Source system. You can configure the pricing source system details using the [Pricing Source System Maintenance](#). To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Pricing Source System**.
2. Under **Pricing Source System**, click **View Pricing Source System**.

→ The **View Pricing Source System** screen is displayed.

Figure 66: View Pricing Source System



For more information on fields, refer to the field description table below.

Table 73: View Pricing Source System – Field Description

Field	Description
Pricing Source System	Displays the name of the Pricing Source system.
Pricing Source System Description	Displays any additional information of the Pricing Source system.
Status	Displays the status of the record.

3.32.2 Pricing Source System Maintenance

The maintenance screen allows you to configure Pricing Source System details. To process this screen, perform the following steps:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Pricing Source System**.
2. Under **Pricing Source System**, click **Create Pricing Source System**.

→ The **Create Pricing Source System** screen is displayed.

Figure 67: Create Pricing Source System

3. On **Create Pricing Source System** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 74: Create Pricing Source System – Field Description

Field	Description
Pricing Source System	Specify the pricing source system.
Pricing Source Description	Specify the additional information about the Pricing Source system.

4. Click **Save**. You can view the configure Pricing Source system details in the [Pricing Source System Summary](#).

3.33 Integrating Bureau Integration Service with Oracle Banking Routing Hub

3.33.1 Oracle Banking Routing Hub Configuration

Need to import existing service consumer and providers in the system. Service Consumer is Oracle product, which invokes oracle banking routing hub API, oracle banking routing hub analyses evaluates destination product processor and transform data into format of the same. Service consumer comprises of the source and destination integration details.

Navigation: **Core Maintenance -> Routing Hub -> Service Consumers**

Figure 68: Service Consumers

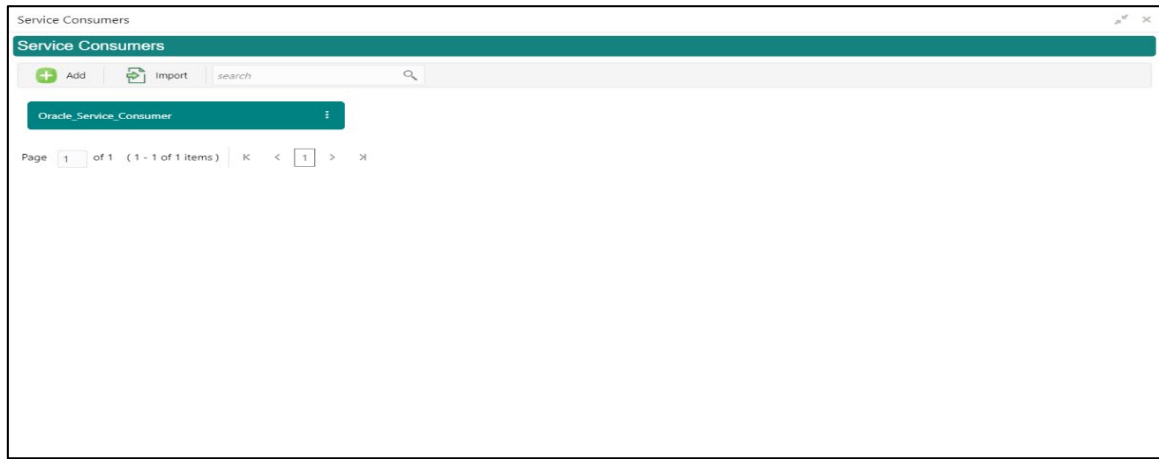


Figure 69: Oracle Banking Routing Hub Configuration

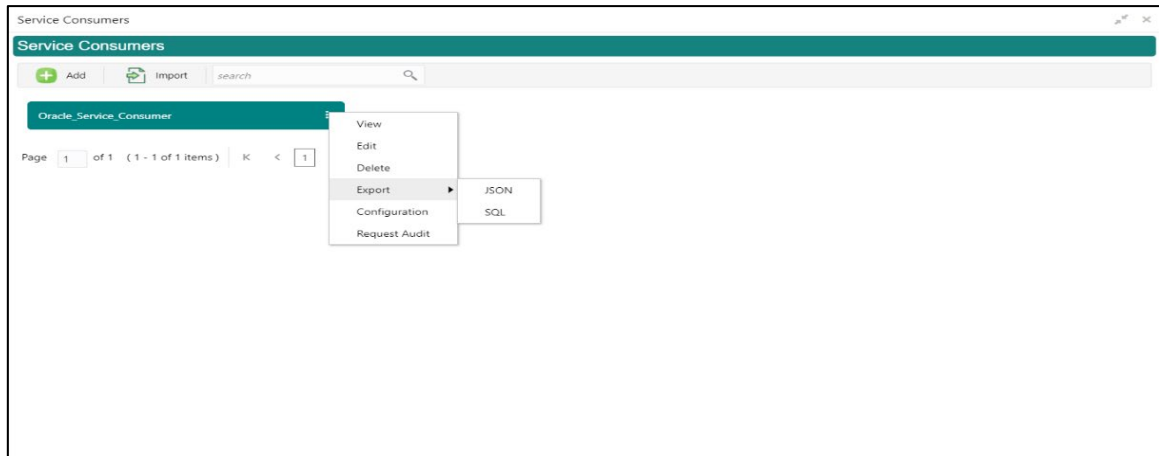


Table 75: Oracle Banking Routing Hub Configuration

Component Name	Component Type	Condition	Comments
Add	Button		Pops up add dialog
Import	Button		Pops up import dialog

Search	Combo Box One		Provides search functionality with case insensitive (Service Consumer Name)
View	menu option	Non-editable	Pops up view dialog
Edit	menu option		Pops up edit dialog
Delete	menu option		
Export	Sub menu item		
JSON	menu option		Exports in JSON
SQL	menu option		Exports in SQL
Configuration	menu option		Pops up configuration dialog
Request Audit	menu option		Pops up request audit log

3.33.1.1 Add

You can create service consumer manually.

Navigation: **Service Consumers -> Add**

Figure 70: Add

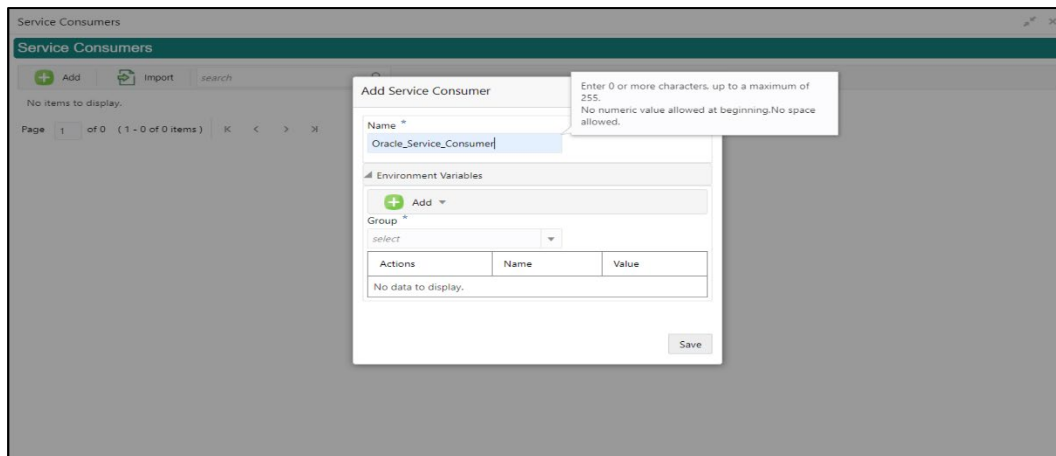


Table 76: Add

Component Name	Component Type	Is Mandatory	Data type	Validation	Comments
Name	Text Box	Yes	Alphanumeric with special characters	<ul style="list-style-type: none"> Name cannot be blank Specify 0 or more characters, up to a maximum of 255 No numeric value at beginning and no space allowed 	Unique Service Consumer name
Environment Variables	Table Content				
Save	Button				Saves the Service Consumer

3.33.1.2 Environment Variables

You can define the group of variables, which can be accessed through the specific consumer’s configuration.

Below is the syntax for accessing environment variables:

\$env.Environment_Group_Name.Environment_Variable_Name

such as: \$env.COMMON.BRANCH_CODE

Figure 71: Environment Variables

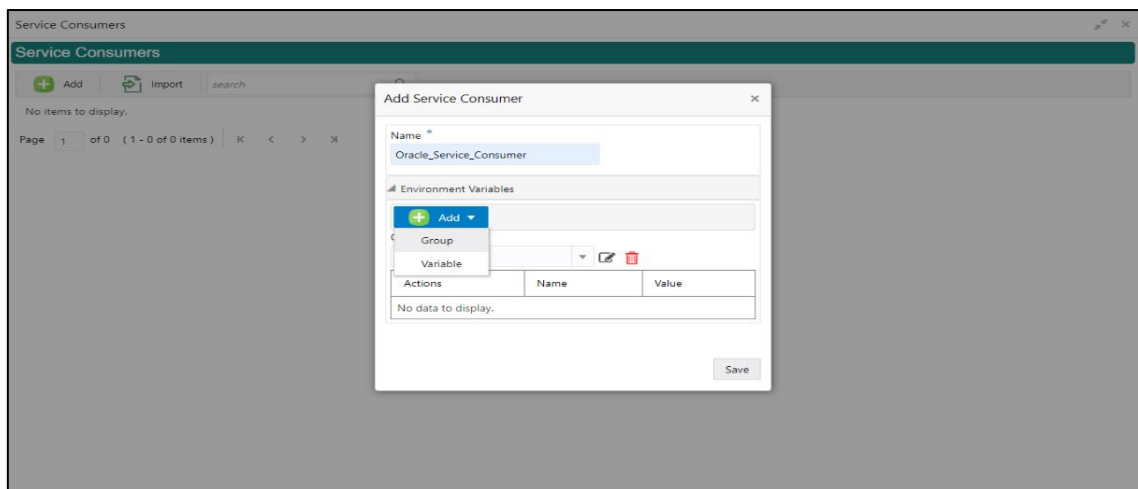


Figure 72: Environment Variables

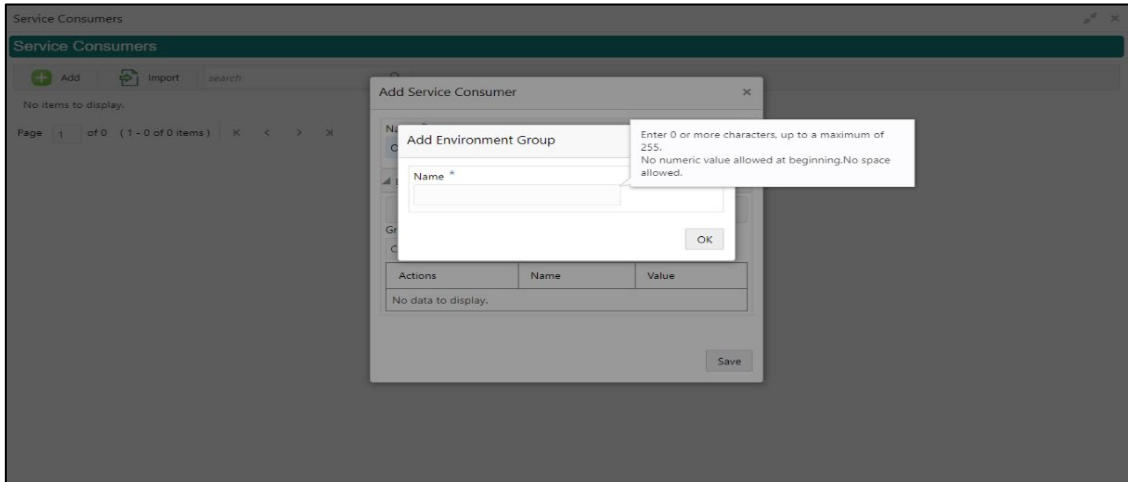


Figure 73: Environment Variables

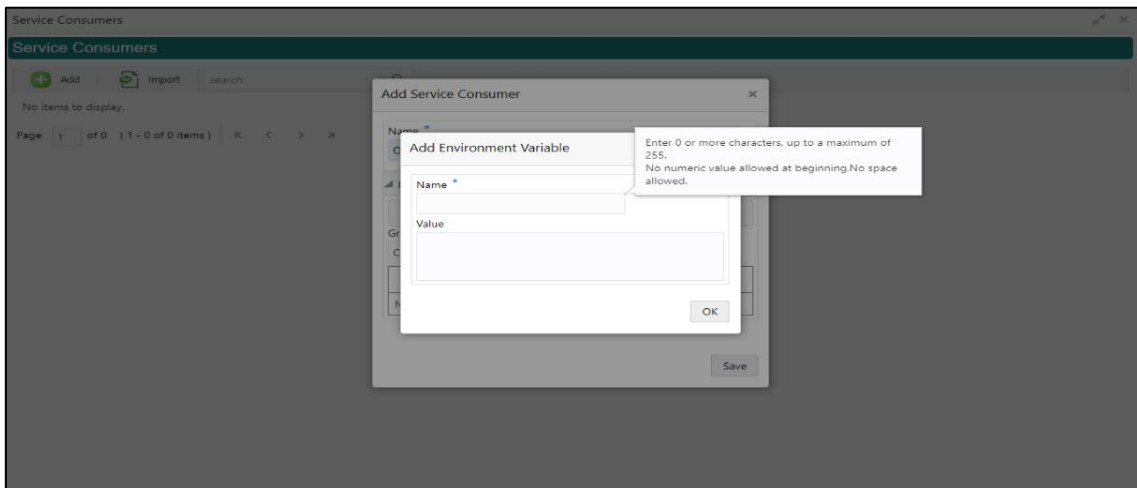


Table 77: Environment Variables

Component Name	Component Type	Is Mandatory	Data type	Validation	Comments
Add	Menu Item				
Group	Menu option				Pops up add group dialog
Variable	Menu option				Pops up add variable dialog
Navigation: Service Consumer -> Environment Variables -> 3 dot icon (operation menu)					
Edit	menu option / icon				Pops up edit dialog

Delete	menu option / icon				Deletes group / variable
Environment Group / Variable					
Name	Text Box	Yes	Alphanumeric with special characters	<ul style="list-style-type: none"> • Name cannot be blank • Specify 0 or more characters, up to a maximum of 255 • No numeric value at beginning and no space allowed 	
Value	Text Area				Value can either be hardcoded or Velocity mapping.
OK	Button				Saves the group / variable and displays it in the list

3.33.1.3 Import

You can create a service consumer by importing the JSON file and manually selecting the service providers or select all providers that needs to be imported.

Navigation: **Service Consumers -> Import**

Figure 74: Import

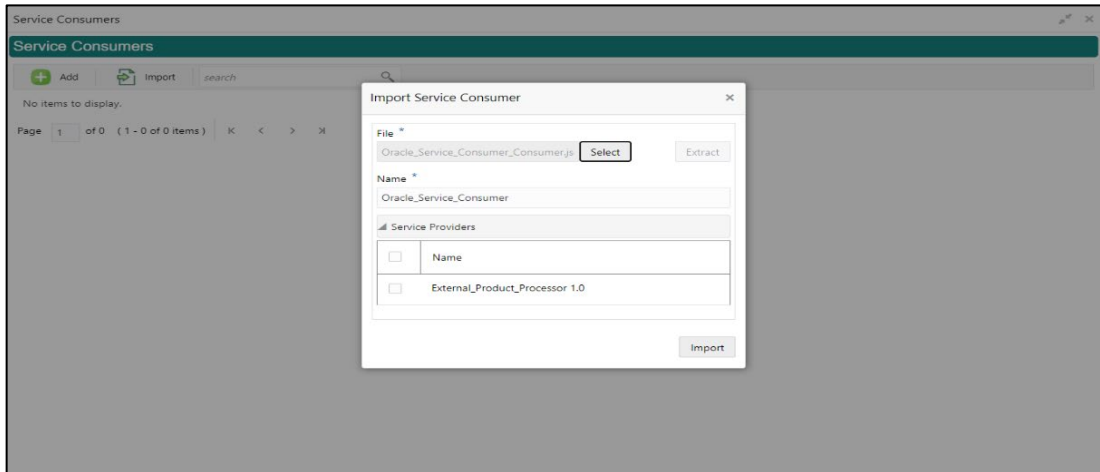


Table 78: Import

Component Name	Component Type	Is Mandatory	Data type	Validation	Condition	Comments
File	File picker	Yes		Allows only to select one file	Accepts only JSON file	Pops up file selection dialog box
Extract	Button	Yes				Extracts Consumer Name and Service Provider list from JSON file and displays it in the respective elements.
Name	Text Box	Yes	Alphanumeric with special characters	<ul style="list-style-type: none"> Name cannot be blank Specify 0 or more characters, up to a maximum of 255 	Editable	Unique

Component Name	Component Type	Is Mandatory	Data type	Validation	Condition	Comments
				<ul style="list-style-type: none"> No numeric value at beginning and no space allowed 		
Service Provider	Collapsible Header & Content					Displays the list of service providers that are present in JSON file
Import	Button					Imports Service Consumer

Note: Below data needs to be changed after importing consumer configuration file:

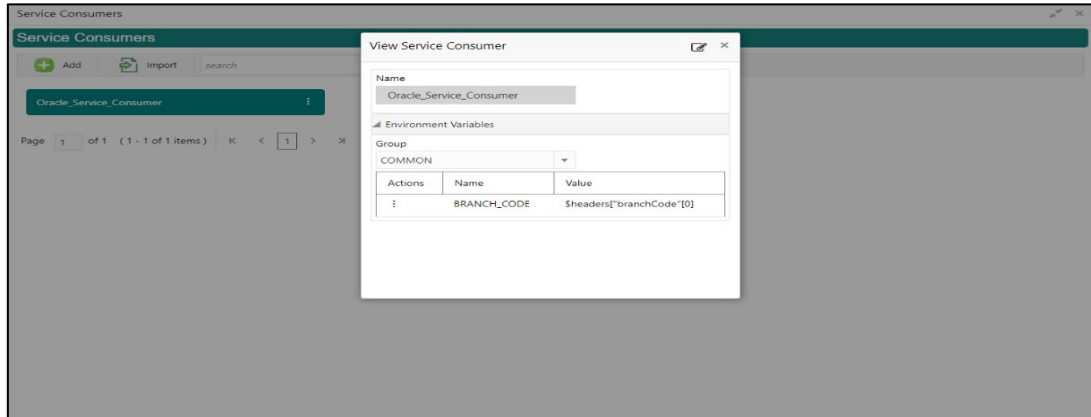
- Implementation Host and Port
- Implementation Authentication Password

3.33.1.4 View

You can view consumer details and can also switch to edit form by clicking on edit icon.

Navigation: **Service Consumers -> Operation Menu (3 dot icon) -> View**

Figure 75: View

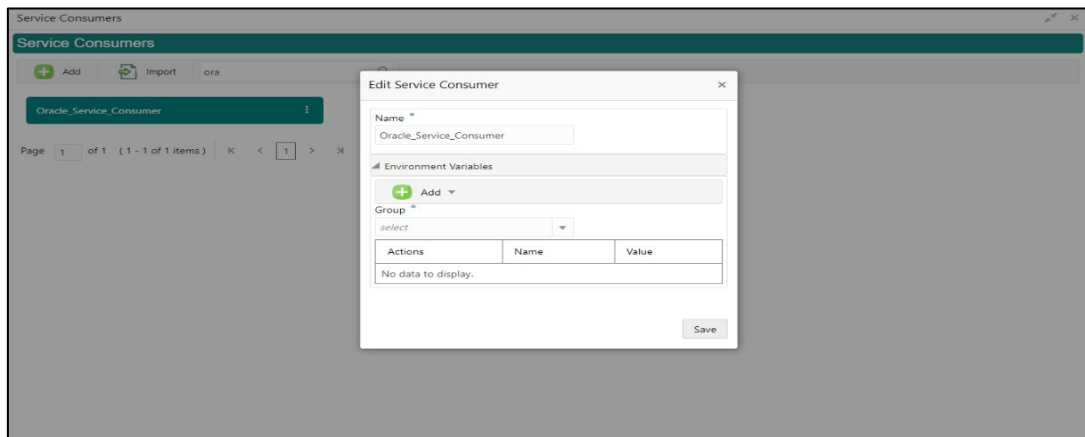


3.33.1.5 Edit

You can modify the consumer details.

Navigation: **Service Consumers -> Operation Menu (3 dot icon) -> Edit**

Figure 76: Edit

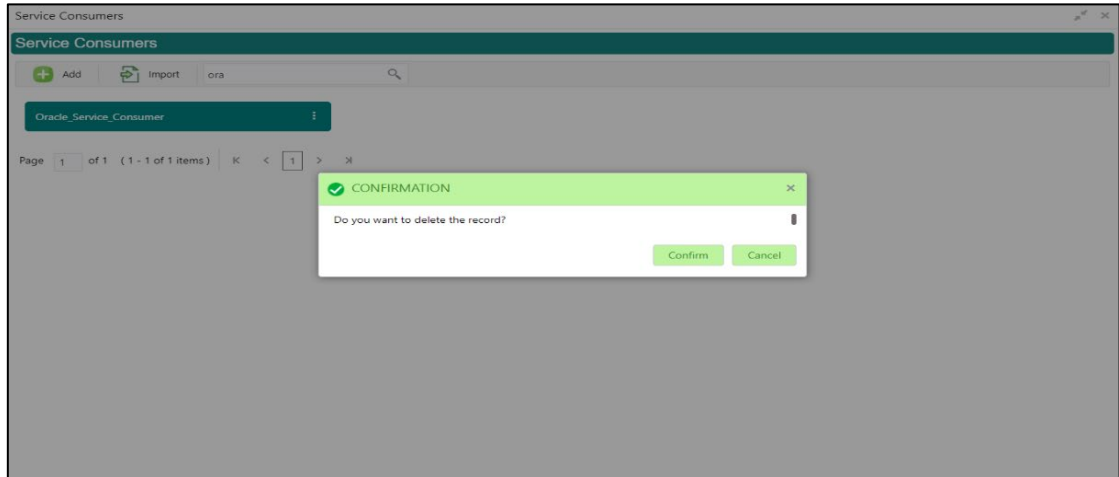


3.33.1.6 Delete

You can delete the consumer.

Navigation: **Service Consumers -> Operation Menu (3 dot icon) -> Delete**

Figure 77: Delete

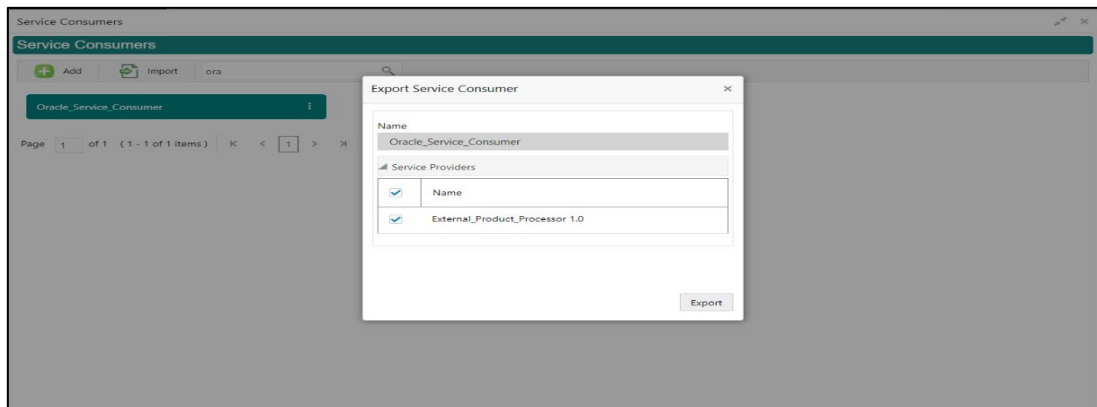


3.33.1.7 JSON Export

You can export the consumer configuration as JSON file.

Navigation: **Service Consumers -> Operation Menu (3 dot icon) -> Export -> JSON**

Figure 78: JSON Export



NOTE: You have an option to select service providers from the list that needs to be exported or can click on Select All option for all service providers.

JSON Export feature will export below data:

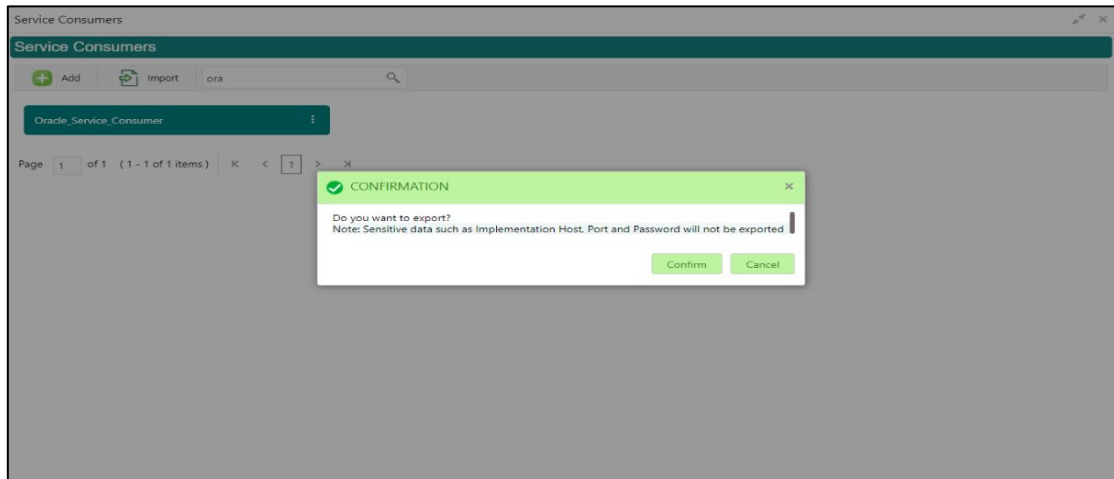
- Selected service consumer
- All consumer services
- Selected service providers with services
- Default implementation of selected service providers with services (without Host, Port, and Authentication Password)
- Default transformations
- All default implementation routes

3.33.1.8 SQL Export

You can export the consumer configuration as SQL file.

Navigation: **Service Consumers -> Operation Menu (3 dot icon) -> Export -> SQL**

Figure 79: SQL Export



NOTE: SQL Export feature will export entire configuration without Host, Port and Authentication Password details.

3.33.2 Service Providers

Service Providers are the product processors configure to process request send by oracle banking routing hub on behalf of service consumers.

Service Provider comprises of destination integration details.

Navigation: **Core Maintenance -> Routing Hub -> Service Consumers -> <Specific Service Consumer> -> Service Providers**

Figure 80: Service Providers

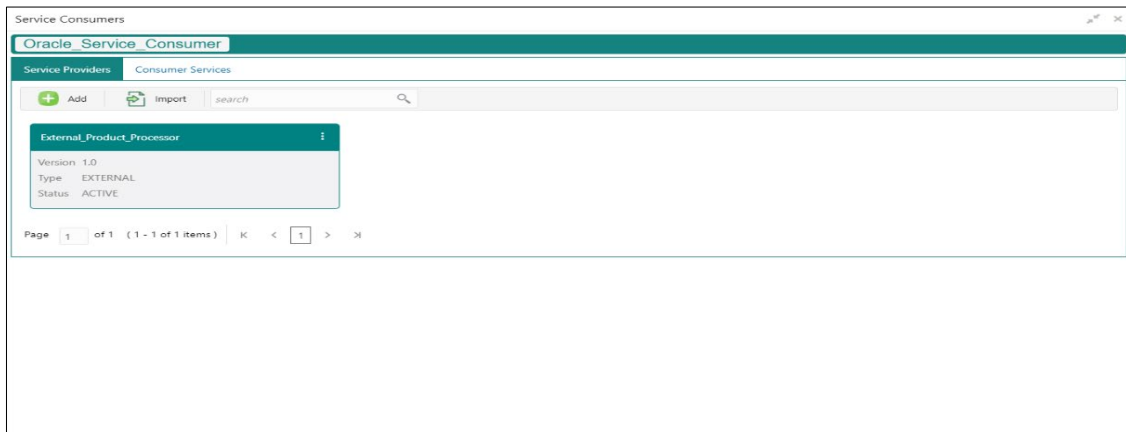


Figure 81: Service Providers

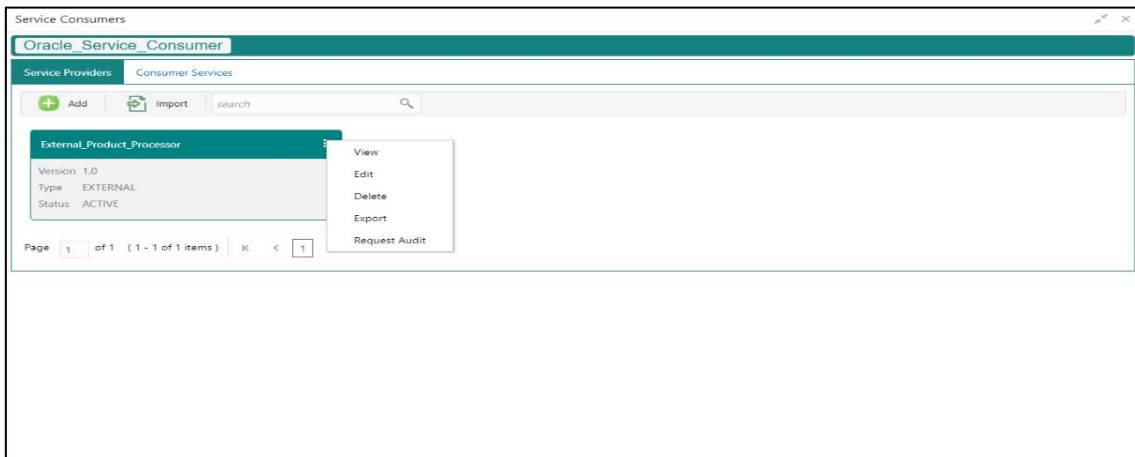


Table 79: Service Providers

Component Name	Component Type	Is Mandatory	Data type	Validation	Condition	Comments
<Service Consumer>	Button					Navigates back to Service Consumers
Add	Button					Pops up add dialog
Import	Button					Pops up import dialog

Search	Combo Box One					Provides search functionality with case insensitive (Service Provider Name)
Navigation: Service Providers -> 3 dot icon (operation menu)						
View	menu option				Non-editable	Pops up view dialog
Edit	menu option					Pops up edit dialog
Delete	menu option					
Export	menu option					Exports in JSON
Request Audit	menu option					Pops up request audit log

3.33.2.1 Add

You can create service provider manually.

Navigation: **Service Providers-> Add**

Figure 82: Add

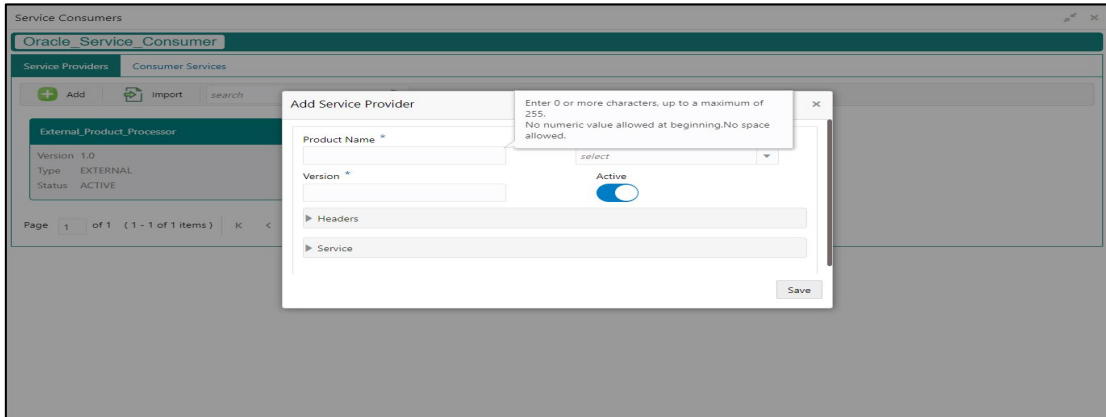


Table 80: Add

Component Name	Component Type	Is Mandatory	Data type	Validation	Comments
Product Name	Text Box	Yes	Alphanumeric with special characters	<ul style="list-style-type: none"> Name cannot be blank Specify 0 or more characters, up to a maximum of 255. No numeric value at beginning and no space allowed. 	Unique provider name
Type	Combo Box One	Yes			Predefined Values: INTERNAL / EXTERNAL

Component Name	Component Type	Is Mandatory	Data type	Validation	Comments
Version	Text Box	Yes	Number	<ul style="list-style-type: none"> Version cannot be blank Specify 0 or more characters, up to a maximum of 255. Specify only numeric or decimal values. 	Unique provider version
Active	Switch				Predefined Values: ACTIVE / INACTIVE If provider is marked as inactive, then all related routes will be stopped.
Headers	Collapsible Header & Content				Provider specific headers
Service	Collapsible Header & Content				Provider specific service details
Save	Button				Saves the Service Provider

3.33.2.2 Headers

External product processor might require some standard headers to be passed along with the request.

You can specify the headers which are required by service endpoints for its all implementations but not present in swagger file.

These headers can be configured in oracle banking routing hub using the steps given below.

Figure 83: Headers

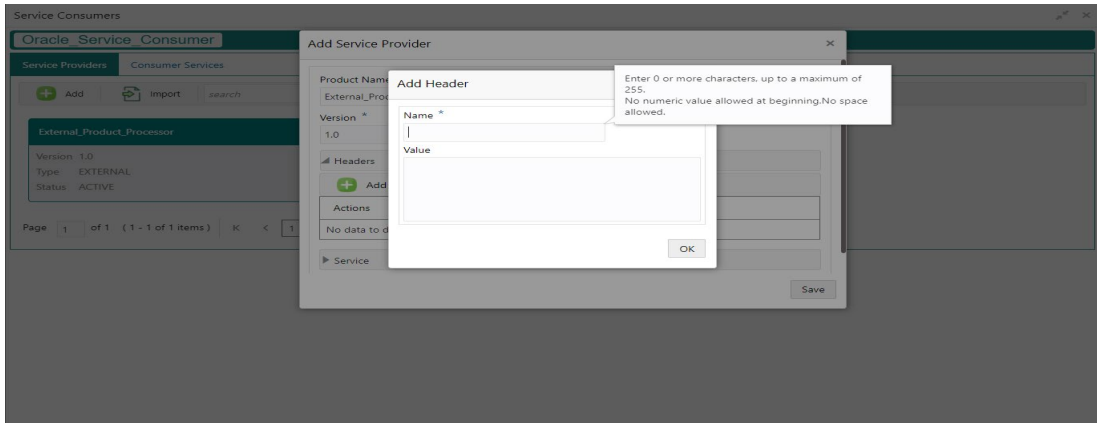


Figure 84: Headers

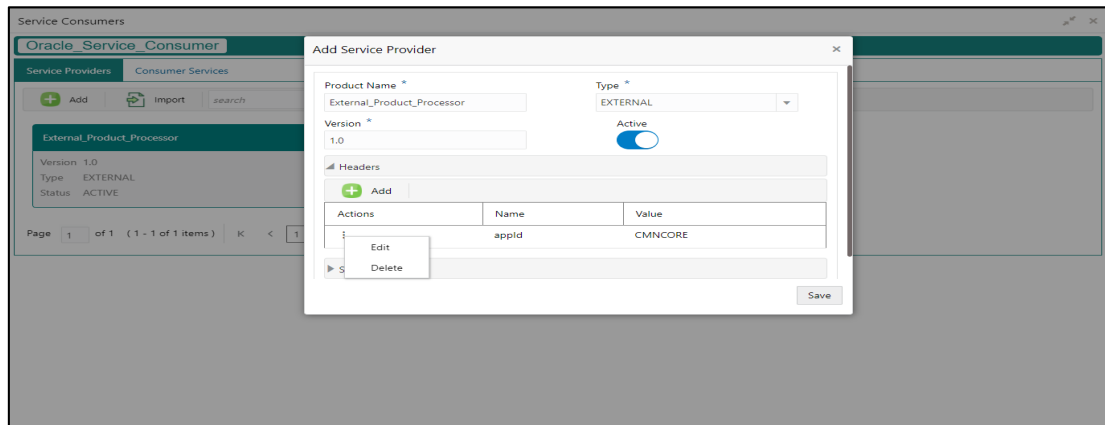


Table 81: Headers

Component Name	Component Type	Is Mandatory	Data type	Validation	Condition	Comments
Add	Button					Pops up add dialog
Navigation: Service Providers -> Headers -> 3 dot icon (operation menu)						
Edit	menu option					Pops up edit dialog
Delete	menu option					Deletes header

Component Name	Component Type	Is Mandatory	Data type	Validation	Condition	Comments
Navigation: Service Providers -> Headers -> Add						
Name	Text Box	Yes	Alphanumeric with special characters	<ul style="list-style-type: none"> Name cannot be blank Specify 0 or more characters, up to a maximum of 255. No numeric value at beginning and no space allowed. 		
Value	Text Area	Yes	Alphanumeric with special characters	<ul style="list-style-type: none"> Value cannot be blank Specify 0 or more characters, up to a maximum of 255. No space allowed. 		Value can either be hardcoded or can be Velocity mapping.
OK	Button					Saves the header details and displays it in the list

3.33.2.3 Service

Figure 85: Service

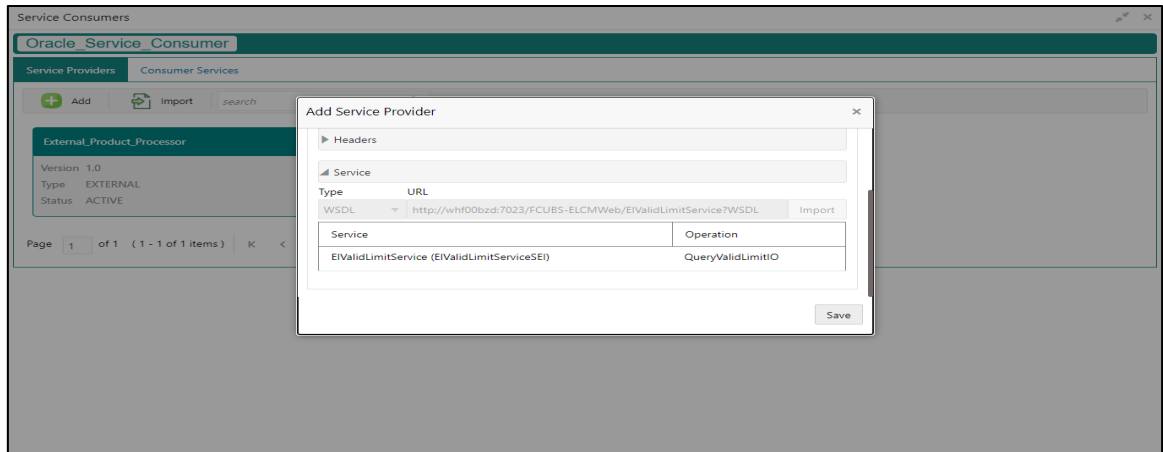


Table 82: Service

Component Name	Component Type	Is Mandatory	Comments
Type	Combo Box One	Yes	Predefined Values: WSDL / SWAGGER
URL	Text Box	Yes	Service URL of the file location
Gateway Prefix	Text Box		Gateway Prefix is context path of below formatted URL http://host:port/gateway-prefix/endpoint
Import	Button		Extracts the service information from URL and displays it in the Service list

3.33.2.4 WSDL

The Web Services Description Language (WSDL) is an XML-based interface description language that is used for describing the functionality offered by a web service.

Currently, non-SSL WSDL URL is only supported.

NOTE: In case there is a change in wsdl file, then same wsdl file need to be imported again in order to update the provided service information in routing hub.

3.33.2.5 SWAGGER

Swagger is an Interface Description Language for describing RESTful APIs expressed using JSON.

Currently, Swagger 2.0 & OpenAPI 3.0 both are supported.

NOTE: In case there is a change in swagger file, then same swagger file need to be imported again in order to update the provided service information in routing hub.

3.33.2.6 Import

You can create a service provider by importing the JSON file.

Navigation: **Service Providers -> Import**

Figure 86: Import

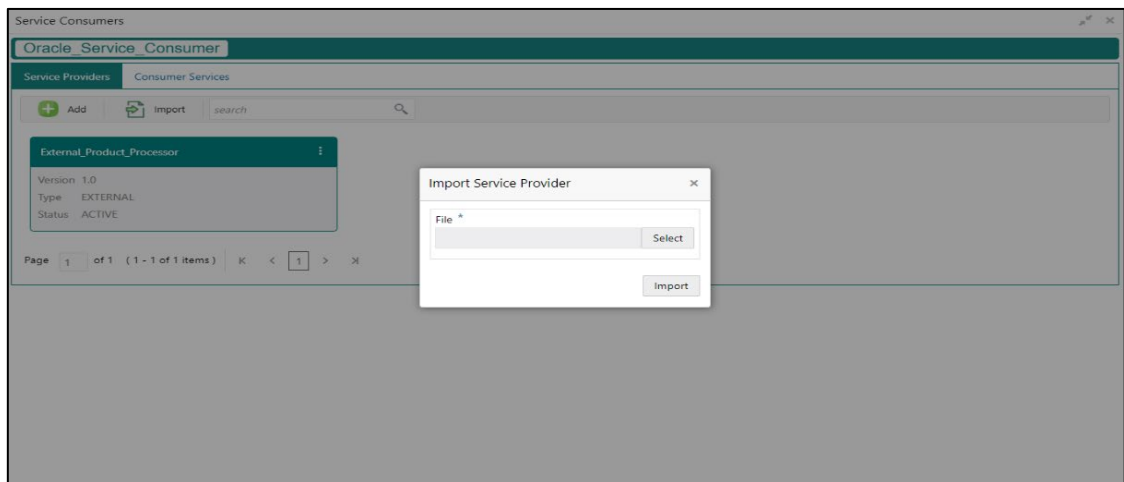


Table 83: Import

Component Name	Component Type	Is Mandatory	Validation	Condition	Comments
File	File picker	Yes	Allows only to select one file	Accepts only JSON file	Pops up file selection dialog box
Import	Button				Imports Service Provider

NOTE: Below data needs to be changed after importing provider configuration file:

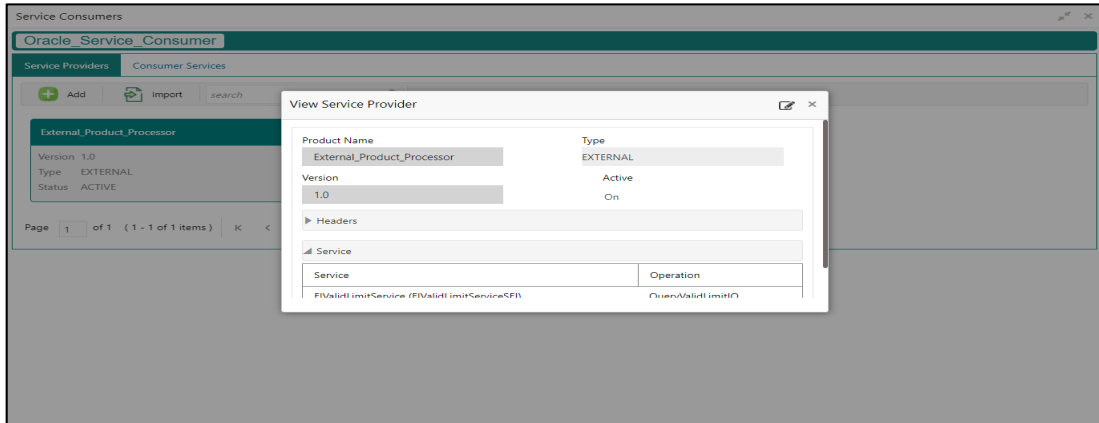
- Implementation Host and Port
- Implementation Authentication Password

3.33.2.7 View

You can view provider details and can also switch to edit form by clicking on edit icon.

Navigation: **Service Providers -> Operation Menu (3 dot icon) -> View**

Figure 87: Oracle Banking Routing Hub Configuration

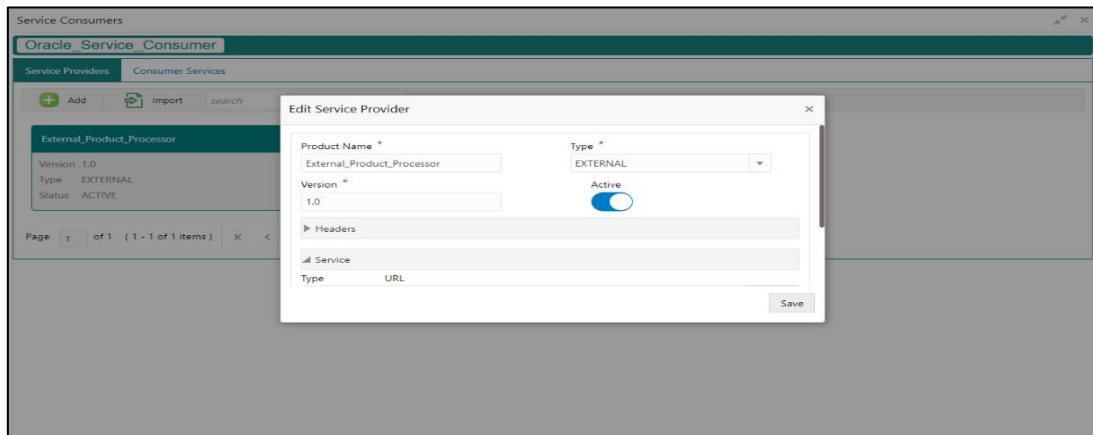


3.33.2.8 Edit

You can modify the provider details.

Navigation: **Service Providers -> Operation Menu (3 dot icon) -> Edit**

Figure 88: Edit

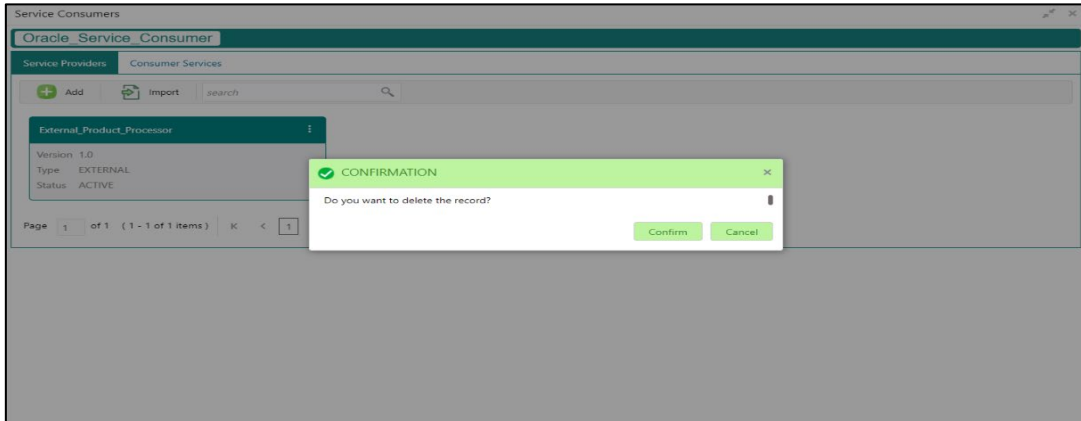


3.33.2.9 Delete

You can delete the provider.

Navigation: **Service Providers -> Operation Menu (3 dot icon) -> Delete**

Figure 89: Delete

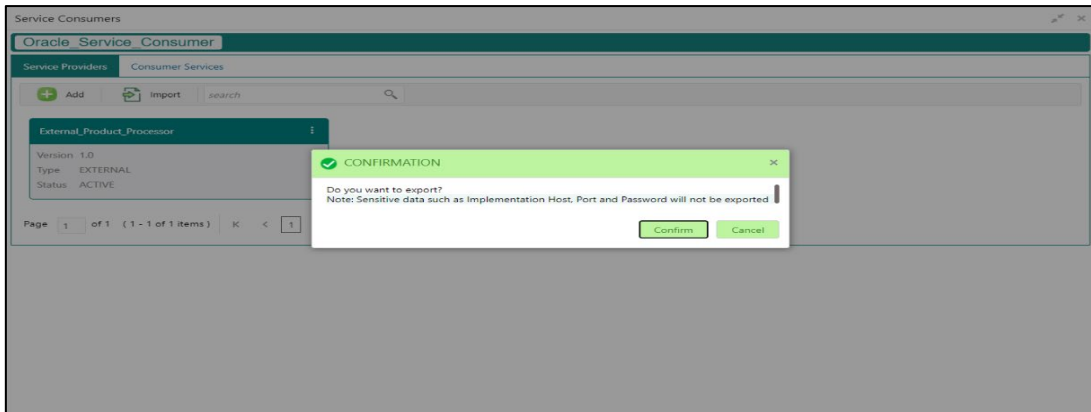


3.33.2.10 Export

You can export the provider configuration as JSON file.

Navigation: **Service Providers -> Operation Menu (3 dot icon) -> Export**

Figure 90: Export



NOTE: Below data is not be exported:

- Implementation Host
- Implementation Port
- Implementation Authentication Password

The above data needs to be configured manually after importing the configuration file.

Same has been mentioned in Import section

3.33.3 Experian Configuration

3.33.3.1 Experian Fetch Credit Report

Figure 91: Experian Fetch Credit Report

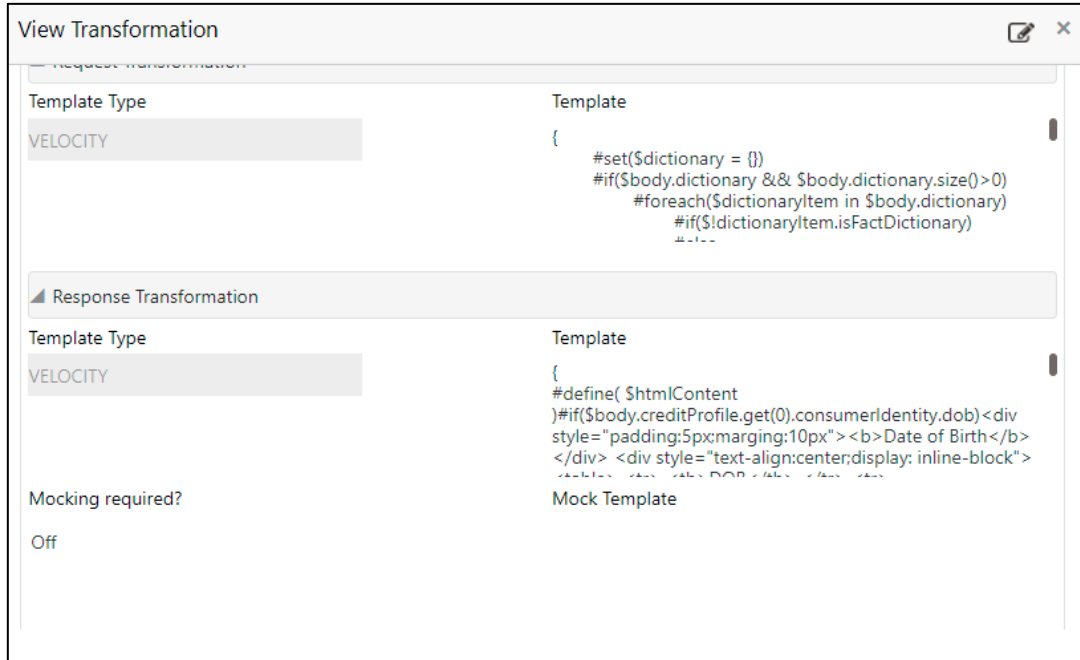
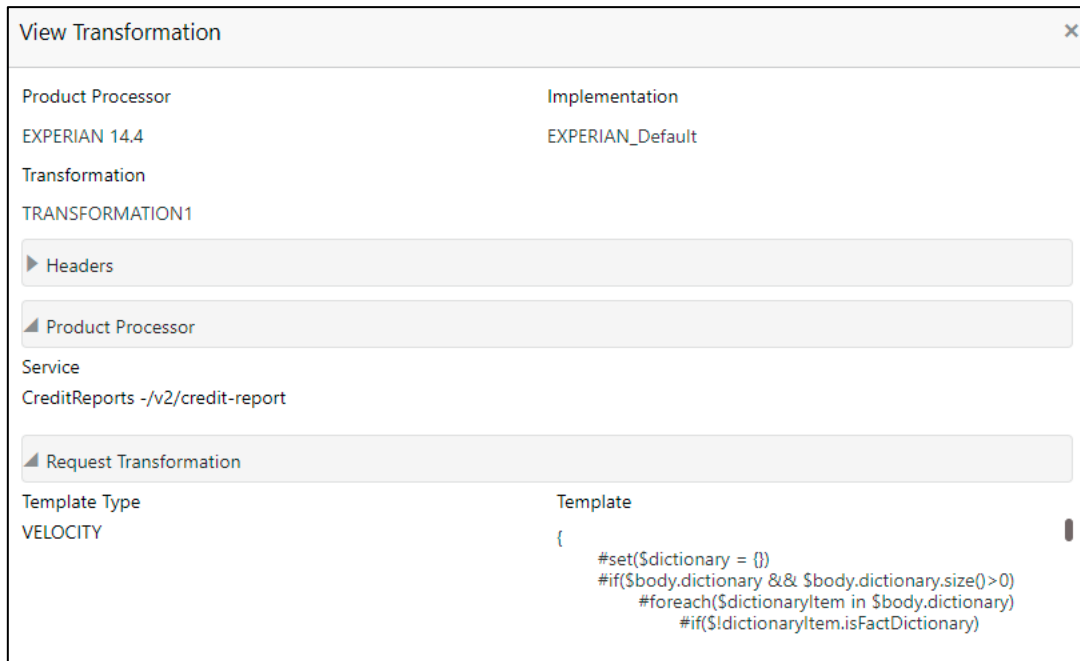


Figure 92: Experian Fetch Credit Report



3.33.3.2 Experian Sandbox

Service Consumer is used to export details of fetch credit report from sandbox environment

Figure 93: Experian Sandbox

Service Consumers		
CBSToBureau		
Service Providers Consumer Services		
+ Add Import <input type="text" value="search"/>		
Actions	Name	Description
⋮	Fetch_Credit_Report	To fetch credit report
⋮	fetchCreditReportDev	This service is used to fetch the credit report of a person
⋮	fetchCreditReport	Fetch Credit Report Response DTO changes
⋮	fetchCreditReportBackup1	This service is used to fetch the credit report of a person
⋮	authorize	Fetch the jwt authorization taken from the Credit Bureau
Page 1 of 1 (1 - 5 of 5 items) K < 1 > X		

3.33.4 Equifax Configuration

Equifax is configured in lookup as a bureau and rule services to configure in oracle banking routing hub as consumer service to fetch details from Equifax sand.

3.33.4.1 Equifax Fetch Credit Report

Figure 94: Equifax Fetch Credit Report

View Transformation

Request Transformation

Template Type: VELOCITY

```

Template
{
  #set($body = $snapshot.get(0).body)
  "consumers": [
    "name": [

```

Response Transformation

Template Type: VELOCITY

```

Template
#set ($obj = "") ## dummy object
#set ($int_class = $obj.class.forName('java.lang.Number'))
#set ($bool_class = $obj.class.forName('java.lang.Boolean'))
#set ($string_class = $obj.class.forName('java.lang.String'))
#set ($map_class = $obj.class.forName('java.util.Map'))

```

Transformation Routing

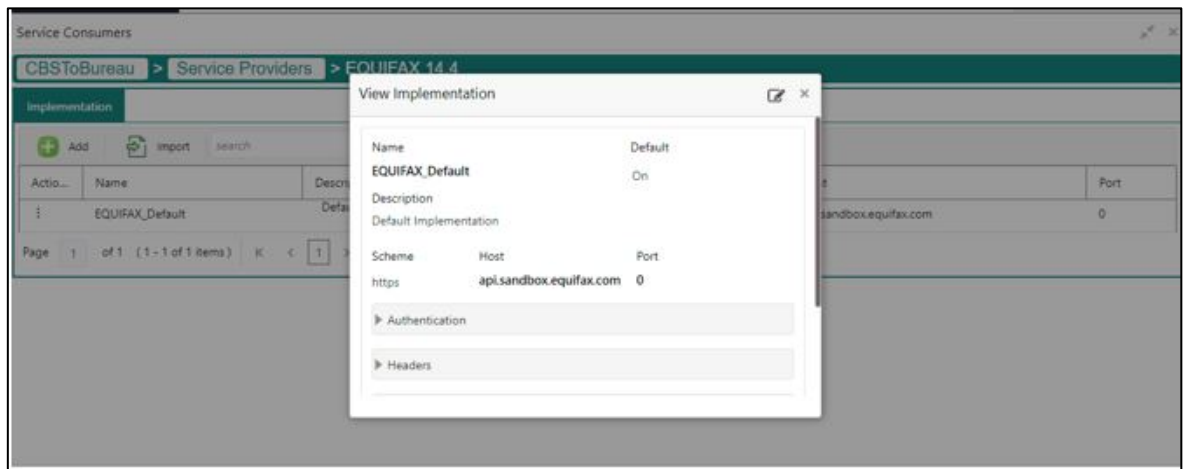
Action...	Name	Status	Product Processor	Implementation	Service
⋮	EXP_AUTH_TRANS	ACTIVE	EXPERIAN 14.4	EXPERIAN_Default	experianAuth - /oauth2/v1/token
⋮	EXP_TRANSFORMATION	ACTIVE	EXPERIAN 14.4	EXPERIAN_Default	CreditReports - /v2/credit-report
⋮	EXP_Extended_View_Attributes_and_Score_Doc	ACTIVE	EXPERIAN 14.4	EXPERIAN_Default	ExtendedViewAttributesAndScore - /v1/extended-view-attributes-and-score
⋮	EXP_DOCUMENT	ACTIVE	EXPERIAN 14.4	EXPERIAN_DOC	premierprofilespdf - /v1/reports/premierprofiles/pdf
⋮	EQUIFAX_AUTH_TRANS	ACTIVE	EQUIFAX 14.4	EQUIFAX_Default	equifaxAuth - /v2/oauth/token
⋮	EQUIFAX_TRANS	ACTIVE	EQUIFAX 14.4	EQUIFAX_Default	requestConsumerCredReport - /reports/credit-report
⋮	EXP_Extended_View_Attributes_and_Score	ACTIVE	EXPERIAN 14.4	EXPERIAN_Default	ExtendedViewAttributesAndScore - /v1/extended-view-attributes-and-score

Page 1 of 1 (1 - 7 of 7 items) K < 1 > X

3.33.4.2 Equifax Sandbox

Service consumer exports details of fetch credit report from sandbox environment.

Figure 95: Equifax Sandbox



3.33.5 Document Configuration

Bureaus usually send applicants credit reports in PDF or encrypted format. The product processors prefer the PDF reports for easy readability and usability. In addition, product processors want to display PDF reports in their system and share these reports with the applicants. In such cases, the PDF credit reports are stored in the document server, which can be accessed by the bureau integration service and the product processor.

3.33.5.1 Content Management Server

The Oracle content management server is used to store and manage documents. It can accept encoded strings of data and stores them in the provided extension format like (pdf, jpeg, png). The content management server allows to view the document online.

The latest available version is 12.2.1.4.

The cmc-document-service is a gateway to access the oracle content management server. Using this service, other applications can store, manage and process the document with ease.

3.33.5.2 Environment Configuration

To install cmc-document-services, additional configuration is added. This includes the moc domain.

```
Dflyway.domain.locations=db/migration/domain/plato,db/migration/domain/sms,db/migration/domain/moc,db/migration/domain/cmc
```

```
-Dflyway.domain.placeHolders.moc.cmc-comments-services.server.port=<MOC_PORT>
```

```
-Dflyway.domain.placeHolders.moc.cmc-document-services.server.port=<MOC_PORT>
```

```

-Dflyway.domain.placeHolders.dmsServiceUrl=<CONTENT_SERVER_URL>
-Dflyway.domain.placeHolders.dmsServiceUsrname=<CONTENT_SERVER_USERNAME>
-Dflyway.domain.placeHolders.dmsServicePwd=<CONTENT_SERVER_PASSWORD>
-Dflyway.domain.placeHolders.cmc-document-services.schema=<SCHEMA_NAME>
-Dflyway.domain.placeHolders.cmc-document-services.server.port=<SCHEMA_PORT>
-Dflyway.domain.placeHolders.cmc-document-services.username=<SCHEMA_USERNAME>
-Dflyway.domain.placeHolders.cmc-document-services.password=<SCHEMA_PASSWORD>
-Dflyway.domain.placeHolders.cmc-document-services.domain.jndi=jdbc/CMNCORE
-Dflyway.domain.placeHolders.cmc-document-services.jndi=jdbc/CMNCORE
-Dflyway.domain.placeHolders.cmc-document-services.db.jndi=jdbc/CMNCORE
-Dflyway.domain.placeHolders.cmc-document-
services.jdbcUrl=jdbc:oracle:thin:@//<SCHEMA_IP>:<SCHEMA_PORT>/<SERVICE_NAME>
-Dflyway.domain.placeHolders.cmc-document-
services.db.jdbcUrl=jdbc:oracle:thin:@//<SCHEMA_IP>:<SCHEMA_PORT>/<SERVICE_NAME>

```

3.33.6 Troubleshooting

3.33.6.1 Oracle FLEXCUBE Onboarding issues faced during cmc-obcbs-service and cmc-obrh-services integration

Experian password expired

The password for the Experian account had expired

The solution is to login to the Experian website and reset the password. The new password is generated via mail and you can configure in oracle banking routing hub for token generation.

3.33.6.2 Unable to connect to external server

The oracle banking routing hub server is unable to connect to the experian server. The proxy is not configured

The VM arguments were added for oracle banking routing hub's managed server.

```
-Dhttps.proxyHost=www-proxy-idc.in.oracle.com
```

```
-Dhttps.proxyPort=80
```

```
https://confluence.oraclecorp.com/confluence/pages/viewpage.action?pageId=2863487960
```

3.33.6.3 Oracle Banking Routing Hub environment variable value not found

The environment variable for the Bureau Integration Service product processor is improper.

`($.headers["bureauType"])[0]`

The correct path was provided(`$.headers["bureauType"])[0]`

3.34 Bureau Integration Service

3.34.1 Overview

Bureau integration service facilitates financial institutions to send requests to the credit bureau agencies for credit scores and reports. It also facilitates viewing reports received from the bureaus.

The credit report presents the credit information of an individual or a company, which is fetched by credit bureaus from various financial institutions. It is a detailed report, which contains the history of borrowings, repayment routine, defaults, and delays. This report contains vital information about a customer's credit score, personal information, employment details, contact information, and details of accounts in various banks of a given geographical region. The objective of this report is to present the financial history of an individual or a company, which further helps a bank to take a decision on granting a loan based on the credit score of a company or an individual.

For requesting and receiving the credit reports, bureau integration service is integrated with the financial institution or the product processor.

The oracle banking routing hub facilitates routing and transforming the information between the product processor, the underlying integration service and the bureau. The flow is as follows:

1. The product processor requests bureau integration service for credit reports. It provides the required customer information for whom the report is requested.
2. The routing hub transforms the data and forwards the request to the bureau integration service.
3. Once the integration service receives the request, the data is processed based on various criteria. The criteria contain the rules and facts of the product processor that are maintained in the rules engine.
4. Bureaus to be called are identified based on evaluation of the rules.
5. The integration service then sends the request to the routing hub, which transforms the data and sends the request to the respective credit bureaus.
6. The bureau processes the request and sends the credit report back.
7. The routing hub receives the report and transforms the report as per the defined template and sends it back to bureau integration service.
8. Bureau integration service then saves the data, displays the credit report, and sends the same to the product processor through the routing hub.

One or more bureaus can be called based on evaluation of the rules. The bureaus can be either called simultaneously or based on the response from the previous bureau call.

Bureau integration service maintains aging for credit report of an applicant. History service allows to store and pull existing credit report of an individual customer. The integration service retrieves report from history for those applicants if subsequent call to same bureau is made within defined period, beyond which a new credit report is called from the bureau. Existing credit reports from history are sent back to the product processor.

In case of multiple applicants being received by bureau integration service as a part of a lending application, based on the evaluation of criteria, the integration service consolidates all the multiple bureau responses into one and sends it to the product processor.

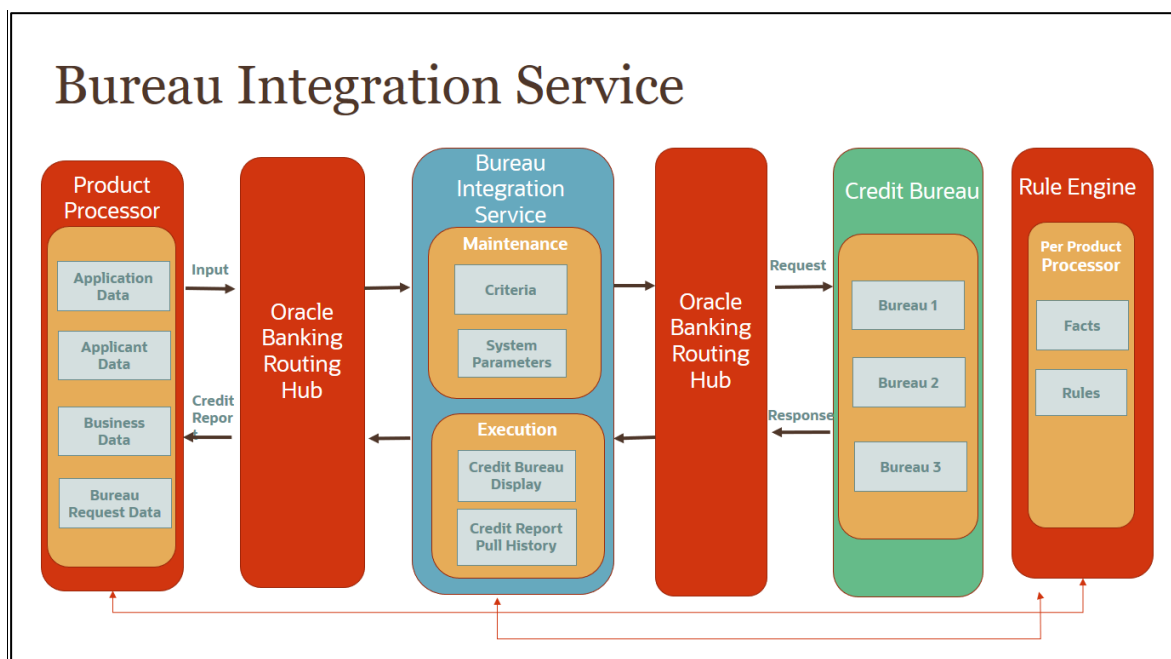
A new bureau can be added with only a configuration and without any change in the code. Two lookup types are required to be created in the bureau integration service. One for bureau and another for bureau product type. The additional maintenance required is configuration of the new bureau in the routing hub.

Bureau integration service supports override of criteria rules if the product processor wants to call a specific bureau or bureau product, for an applicant. In such cases, bureau service will not check criteria for rules evaluation. Instead, bureau service will call the bureau as intimated by the product processor in the request. Here, product processor can list one or more bureau's to be called.

Bureau Integration service supports decoding of encoded pdf string from a bureau response to a pdf report using web content document server. The document server generates a unique document ID for each record stored. Bureau service can access the pdf reports using this document ID.

The below flow diagram depicts how bureau integration service works with the integrated product processor and interfaces with the routing hub for fetching and displaying the credit bureau reports:

Figure 96: Bureau Integration Service



Authorization process

To authorize and approve lookup, criteria you need to perform the following actions:

1. Navigate to the required screen.
2. Click **Authorize**. The record pending for authorization are displayed.
3. Select the required record and click **Approve**.
4. The records are displayed in a widget. If you have modified the lookup, criteria twice, system displays two widgets with respective modification number along with the modified details.
5. Specify remarks for approving the record in the **Remarks** field.
6. Click **Confirm** and authorize the record.
The record is authorized successfully.

3.35 Credit Bureau Display

The credit bureau display screen facilitates to view the reports received from the various bureaus. The report includes credit history details of the customer and the credit score of the customer based on these details.

3.35.1 View Credit Bureau Report

Using this screen, you can view the credit bureau report based on the various filter options provided.

To view a credit bureau report:

1. From **Home screen**, click **Credit Bureau**. Under **Credit Bureau**, click **Operations**.
2. Under **Operations**, click **Credit Bureau Display**.
→ The **Credit Bureau Display** screen is displayed.

Figure 97 : Credit Bureau Display

3. On **Credit Bureau Display** screen, specify the fields. The fields, which are marked with asterisk, are mandatory. For more information on fields, refer to the field description table below.

Table 84: Credit Bureau Display- Field Description

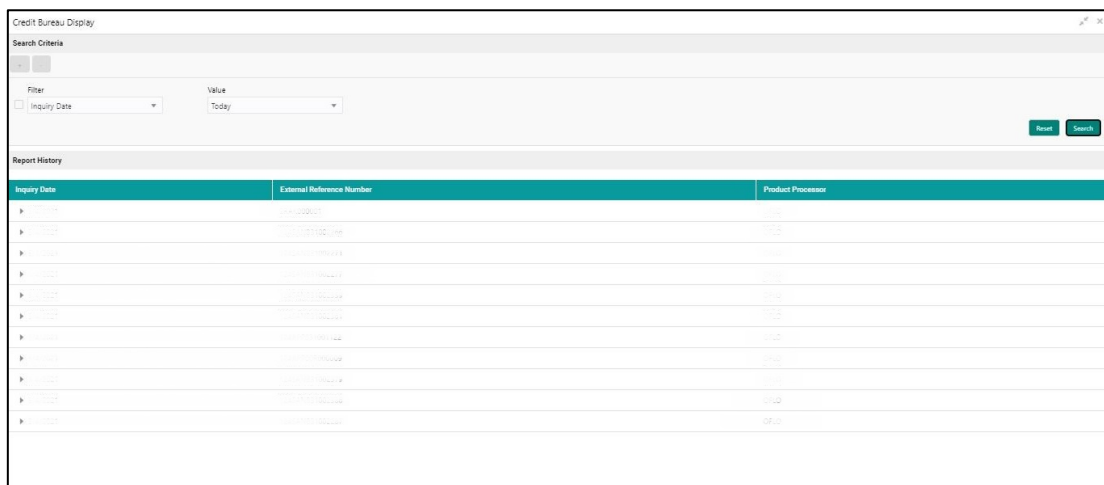
Field	Description
Filter	<p>Select the required option based on which you can search for the credit bureau reports.</p> <p>The options are:</p> <ul style="list-style-type: none"> • External Reference Number • Inquiry ID • Inquiry Date • Bureau Name • Product Processor

Field	Description
	<ul style="list-style-type: none"> Application Number Bureau Report ID
Value	<p>Specify the required details or select the appropriate option for the selected filter option.</p> <p>This field appears once you select an option from the Filter list.</p>
From Date	<p>Select the start of the period during which the report was generated.</p> <p>This field appears once you have selected the filter option as Inquiry Date and value as Date Range.</p>
To Date	<p>Select the end date of the period during which the report was generated.</p> <p>This field appears if you have selected the filter option as Inquiry Date and value as Date Range.</p>

4. In the **Search Criteria** section, specify the details and click **Search**.

→ The search results appear showing a list of records based on the specified search criteria.

Figure 98 : Credit Bureau Display Screen



For more information on fields, refer to the field description table below.

Table 85: Credit Bureau Display – Field Description

Field	Description
Inquiry Date	Displays the inquiry date of the request from product processor to bureau integration service.
External Reference Number	Displays the external reference number provided by the product processor.

Field	Description
Product Processor	Displays the name of the product processor that sent the request.


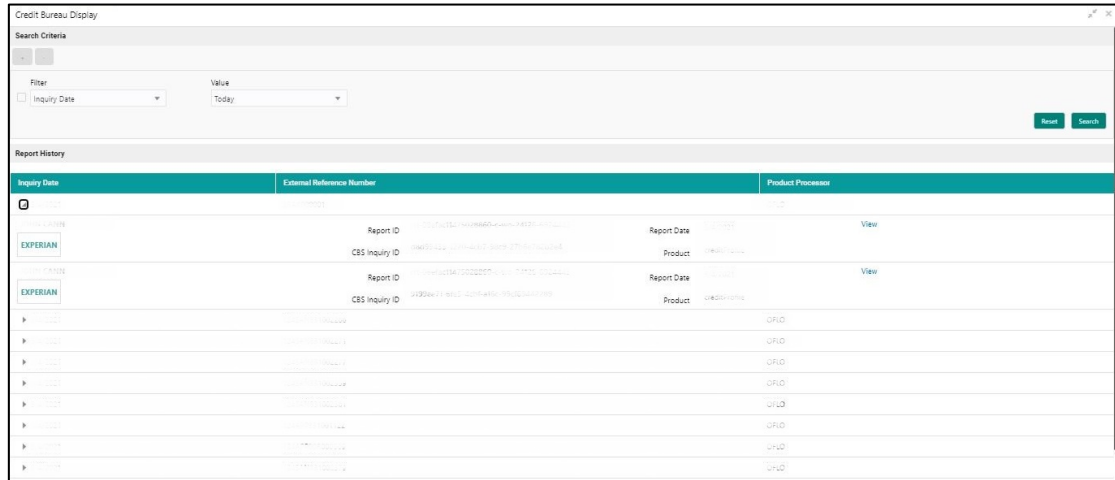

- Click the  icon corresponding to the required record to view the list of reports.

Figure 99 : Credit Bureau Display View List of Report



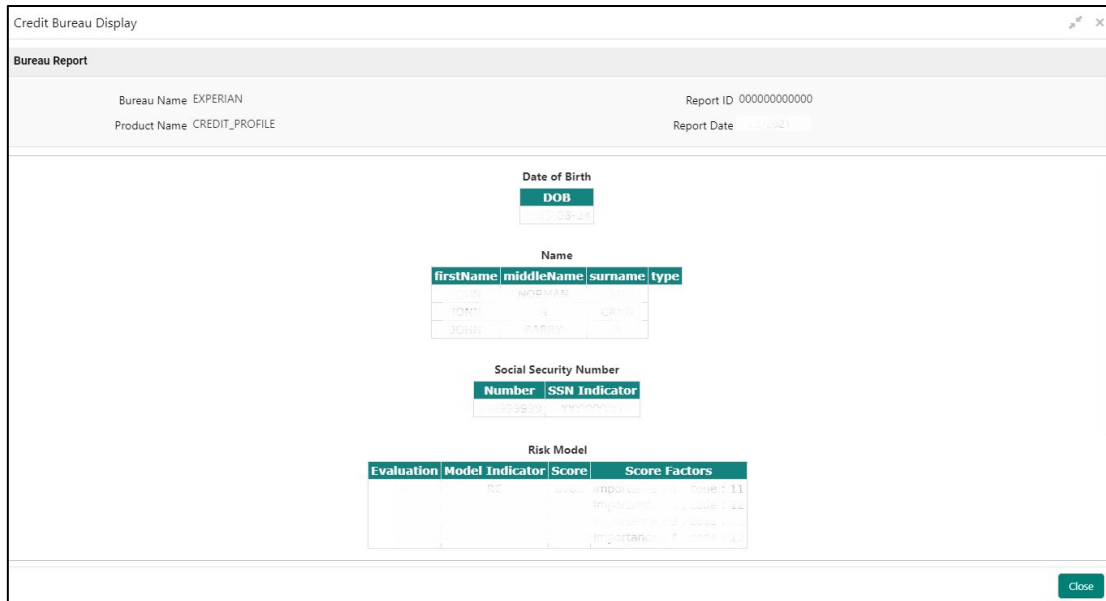
For more information on fields, refer to the field description table below.

Table 86: Create Bureau Display View List of Report – Field Description

Field	Description
The Following fields appear if you click 	
<Applicant Name>	Displays the name of the applicant.
<Bureau Name>	Displays the name of the credit bureau agency.
Inquiry ID	Displays the inquiry ID generated by bureau integration service.
Report ID	Displays the report ID provided by the credit bureau agency.
Report Date	Displays the date on which the credit bureau report is generated by the bureau.
Product	Displays the product of the credit bureau agency.
View	Click this link to view the credit bureau report.

- Click the **View** link to view the credit bureau report.
→ The **Credit Bureau Report** is displayed.

Figure 100 : Credit Bureau Report



For more information on fields, refer to the field description table below.

Table 87: Create Bureau Report – Field Description

Field	Description
Bureau Name	Displays the name of the credit bureau agency.
Product Name	Displays the product name of the credit bureau agency.
Report ID	Displays the report ID provided by the credit bureau agency.
Report Date	Displays the date on which the credit bureau report is generated by the bureau.

3.36 Lookup

Lookup are the service for mapping of keys and values that is used to enrich the description of the data displayed to the user. The lookup screen facilitates to define the contents for drop-down or list of value fields. Lookup fields are used throughout the system. The identified fields will only accept entries stored in this screen. Below are some examples of the lookup fields.

- Static/Enumeration values
 - Credit Bureau: For example, credit bureau1, credit bureau 2, and credit bureau 3.
 - Comparison Operator: Equals, Greater than.
- Dependent lookups based on another selection
 - Based on Country, State should have different values in the lookup.
 - Based on Country, Currency should have different values in the lookup.

3.36.1 Create Lookup

Using this screen, you can create lookup definitions by updating various details.

To create lookup:

1. From **Home** screen, click **Core maintenance**. Under **Core Maintenance**, click **Credit Bureau**.
2. Under **Credit Bureau**, click **Maintenance**.
3. Under **Maintenance**, click **Lookup**.
4. Under **Lookup**, click **Create Lookup**.

→ The **Create Lookup** screen is displayed.

Figure 101 : Create Lookup

Lookup Code	Description	Sort Order	Dependent Identifier	Enable
No data to display.				

5. On **Create Lookup** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 88: Create Lookup – Field Description

Field	Description
Lookup Type	Specify the unique lookup type name.
Description	Specify the short description for lookup.
+ icon	Click this icon to add a new row.
- icon	Click this icon to delete a row, which is already added.
Lookup Code	Specify the unique lookup code.
Description	Specify the short description for lookup.
Sort Order	Specify the sort Order.
Dependent Identifier	Specify the dependent Identifier.
Enable	By default, this option is enabled. Indicates if the lookup is enabled or not.

6. Click **Save**.

The lookup is successfully created and can be viewed using the **View Lookup** screen.

3.36.2 View Lookup

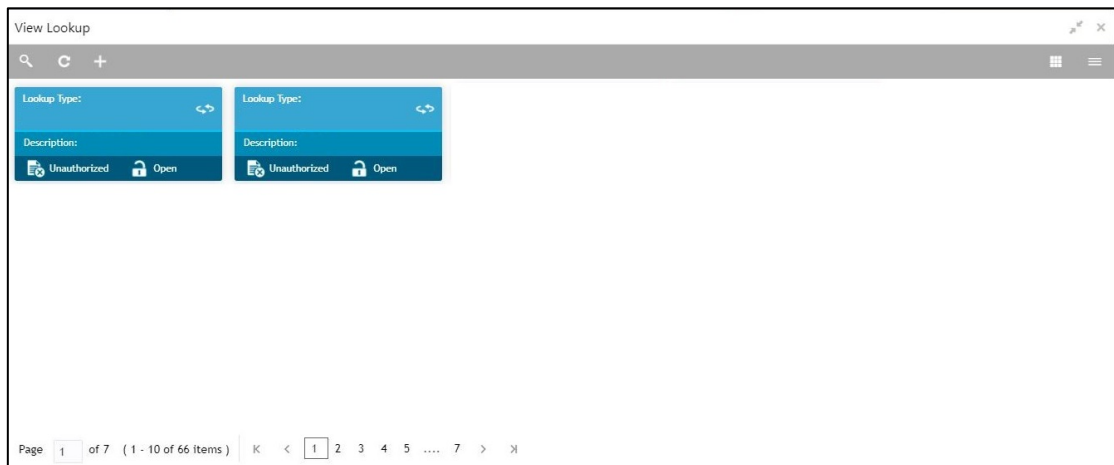
Using this screen, you can view the lookup created using the **Create Lookup** screen. The status of the created lookup is displayed as **Unauthorized** and **Open**. Once the checker authorizes the lookup, the status is updated to **Authorized** and **Open**.

To view created lookup:

1. From the **Home screen**, click **Core Maintenance**. Under **Core Maintenance**, click **Credit Bureau**.
2. Under **Credit Bureau**, click **Maintenance**.
3. Under **Maintenance**, click **Lookup**.
4. Under **Lookup**, click **View Lookup**.

→ The **View Lookup** screen is displayed.

Figure 102 : View Lookup





5. Click .
6. Specify the search criteria to fetch the required lookup.
7. Click **Search**.

Figure 103 : View Lookup - Search Option



For more information on fields, refer to the field description table below.

Table 89: View Lookup – Search Option – Field Description

Field	Description
The following fields are displayed, once you click 	
Lookup Type	Displays the lookup type.
Authorization Status	Select the authorization status of the lookup. The options are: <ul style="list-style-type: none"> • Authorized • Unauthorized
Record Status	Select the record status of the lookup. The options are: <ul style="list-style-type: none"> • Open • Close

For more information on fields on widgets, refer to the field description table below.

Table 90: View Lookup – Field Description.

Field	Description
Lookup Type	Displays the lookup type.
Description	Displays the description of the lookup.



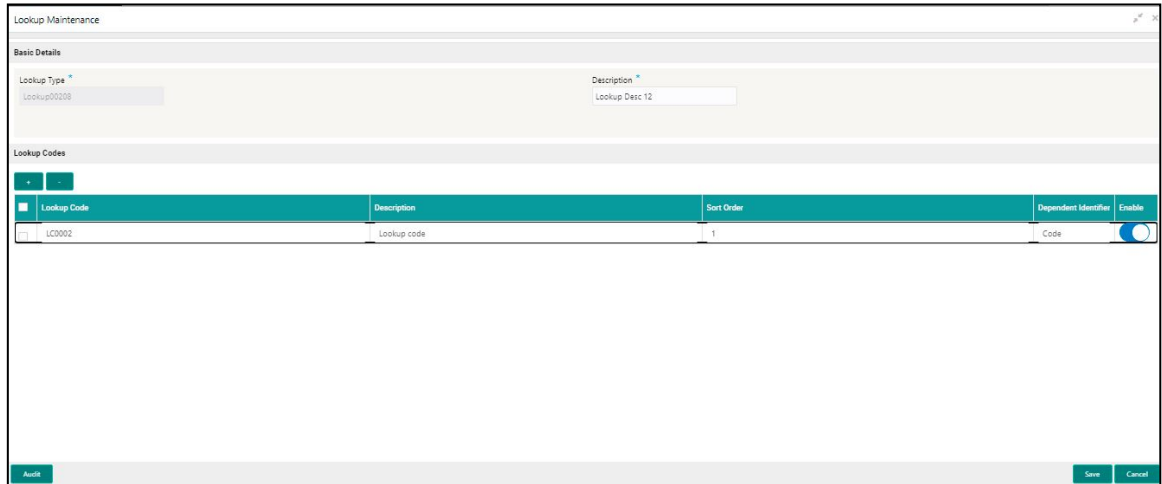
8. Click this icon  to unlock, delete, authorize or view the created criteria code
9. Click  unlock to modify the following fields. The fields are displayed in the **Lookup Maintenance** screen.
 - Lookup Code
 - Description
 - Sort Order
 - Dependent Identifier
 - Enable

Figure 104 : Lookup Maintenance – Modify



For more information on fields, refer to the field description table below.

Table 91: Lookup Maintenance – Modify- Field Description.

Field	Description
Basic Details	
Lookup Type	Displays the lookup type.
Description	Displays the description of the lookup.
Lookup Codes	
+ icon	Click this icon to add a new row.
- icon	Click this icon to delete a row, which is already added.
Lookup Code	Displays the lookup code for the created lookup. You can modify the same.
Description	Displays the description for the created lookup.
Sort Order	Displays the sort order for the created lookup.
Dependent Identifier	Displays the dependent Identifier for the created lookup. You can modify the same.
Enable	Indicates if the lookup is enabled or not. You can modify the same.

10. Click **Save** to update the modified fields.


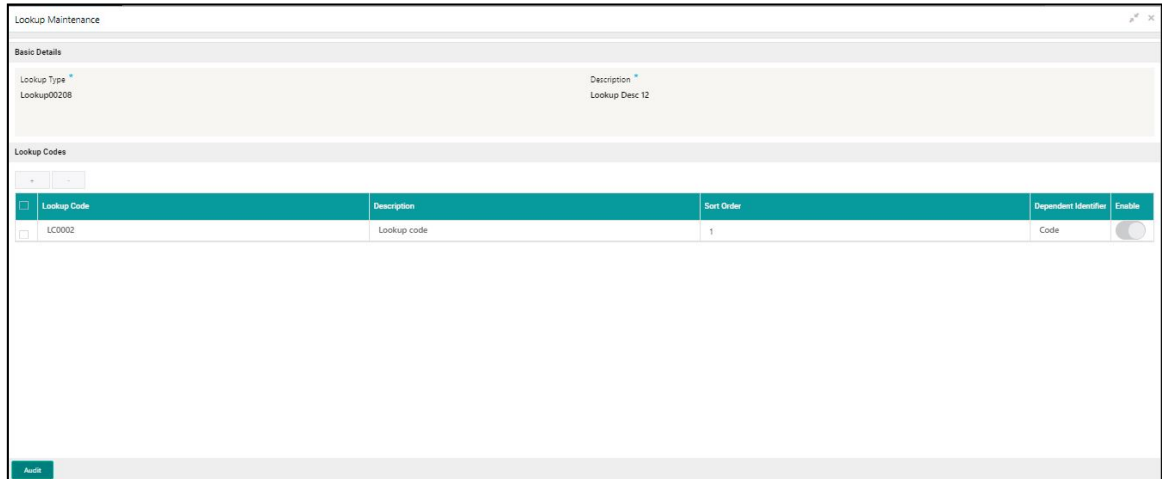
11. Click  to view the created lookup code. The fields are displayed in **Lookup Maintenance** screen.

Figure 105 : Lookup Maintenance – View



For more information on fields, refer to the field description table below.

Table 92: Lookup Maintenance – View- Field Description.

Field	Description
Basic Details	
Lookup Type	Displays the uploaded lookup type.
Description	Displays the description for the uploaded lookup.
Lookup Codes	
Lookup Code	Displays the lookup code for the uploaded lookup.
Description	Displays the description for the uploaded lookup.
Sort Order	Displays the sort order for the uploaded lookup.
Dependent Identifier	Displays the dependent identifier for the uploaded lookup.
Enable	Displays the lookup code if enabled for the uploaded lookup.

3.37 Criteria

The Criteria screen facilitates to setup criteria definition, which are used in evaluating request and response criteria (business rules) to identify which bureau is to be called for the request.

Examples:

- Call credit bureau 1, for personal loan product, and call credit bureau 1 and 2 for home loan products.
- Call credit bureau 1, if zip code of the applicant is between 70000 – 80000 and call credit bureau 2, if zip code of the applicant is between 30000 – 40000.
- Call credit bureau 3, if score from credit bureau 1 is less than 600.

3.37.1 Create Bureau Criteria

Using this screen, you can create bureau criteria by updating various details.

To create bureau criteria:

1. From **Home screen**, click **Core Maintenance**. Under **Core Maintenance**, click **Credit Bureau**.
2. Under **Credit Bureau**, click **Maintenance**. Under **Maintenance**, click **Criteria**.
3. Under **Criteria**, click **Create Bureau Criteria**.

→ The **Create Bureau Criteria** screen is displayed.

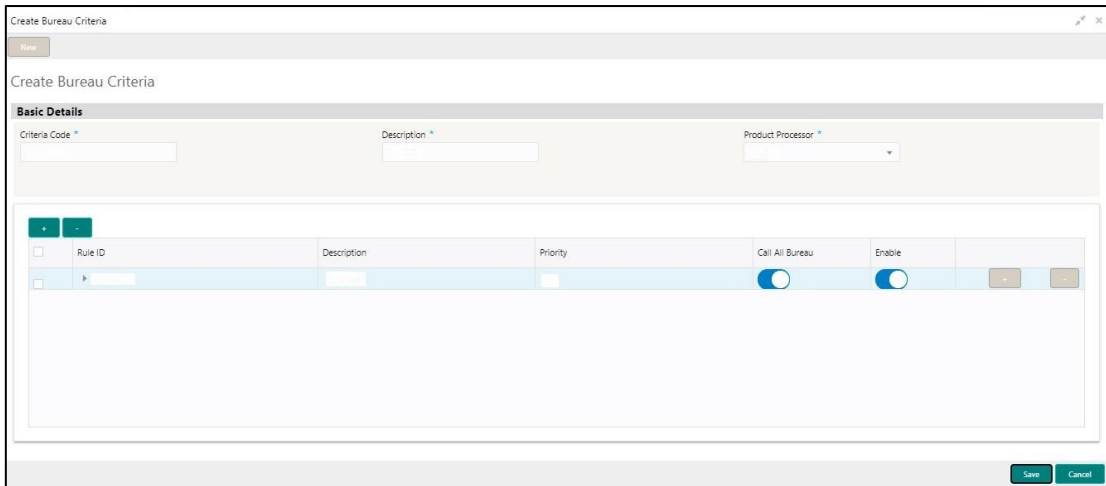
Figure 106 : Create Bureau Criteria

4. On **Create Bureau Criteria** screen, specify the fields. The fields, which are marked with asterisk, are mandatory. For more information on fields, refer to the field description table below.

Table 93: Create Bureau Criteria – Field Description.


Field	Description
Basic Details	
Criteria Code	Specify the unique criteria code.
Description	Specify a short description for the criteria code.
Product Processor	Specify the product processor for which the criteria is being created.


Figure 107 : Create Bureau Criteria – Criteria Definition



For more information on fields, refer to the field description table below.

Table 94: Create Bureau Criteria – Field Description.

Field	Description
+ icon	Click this icon to add a new row.
- icon	Click this icon to delete a row, which is already added.
Rule ID	Specify the rule ID.
	Click this icon to get the information about the rule.
Description	Displays the description of the rule ID selected.
Priority	Specify the priority of the criteria.
Call All Bureau	Click the toggle status to call all bureaus.
Enable	Click the toggle status to enable the rule criteria.
Actions	This field is enabled if Call All Bureau field is selected as No
+ icon	Click this icon to add a new row.

Field	Description
The below fields appear if Call All Bureau toggle status is not clicked. To add the child rule to the parent rule.	
Rule ID	Select the rule ID from the drop-down list.
	Click this icon to get the information about the rule.
Description	Displays the description of the rule ID selected it is auto populated.
Priority	Specify the priority of the criteria.
Enable	Click the toggle status to enable the rule criteria.

5. Click **Save**.

→ The criteria are successfully created and can be viewed using the **View Criteria** screen.

3.37.2 View Bureau Criteria

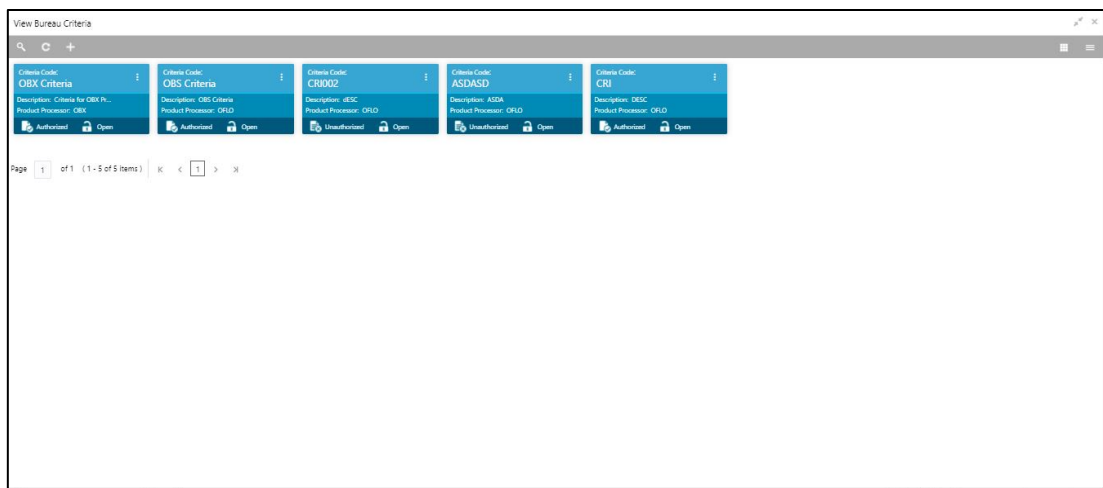
Using this screen, you can view the criteria created using the **Create Bureau Criteria** screen. The status of the created criteria is displayed as **Unauthorized** and **Open**. Once the checker authorizes the lookup, the status is updated to **Authorized** and **Open**.

To view created criteria:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Credit Bureau**.
2. Under **Credit Bureau**, click **Maintenance**.
3. Under **Maintenance**, click **Criteria**.
4. Under **Criteria**, click **View Criteria**.

→ The **View Criteria** screen is displayed.

Figure 108 : View Criteria Screen





5. Click .
6. Specify the search criteria to fetch the required criteria.
7. Click **Search**.

Figure 109 : View Criteria –Search Option



For more information on fields, refer to the field description table below.

Table 95: View Criteria – Field Description.

Field	Description
The following fields are displayed, once you click  .	
Criteria Code	Displays the criteria code.
Description	Displays the criteria description.
Product Processor	Displays the product processor.
Authorization Status	Select the authorization status of the criteria. The options are: <ul style="list-style-type: none"> • Authorized • Unauthorized
Record Status	Select the record status of the criteria. The options are: <ul style="list-style-type: none"> • Open • Close

For more information on fields in the widget, refer to the field description table below.

Table 96: View Bureau Criteria – Field Description.

Field	Description
Criteria Code	Displays the criteria code.
Description	Displays the description of the criteria code.
Product Processor	Displays the product processor of the criteria.



8. Click this icon  to unlock, delete, authorize or view the created criteria code.
9. Click  unlock to modify the following fields. The fields are displayed in the **Bureau Criteria Maintenance** screen.
 - Rule ID
 - Description
 - Priority
 - Call All Bureau Status
 - Enable

Figure 110 : Bureau Criteria Maintenance- Modify

For more information on fields, refer to the field description table below.

Table 97: Bureau Criteria Maintenance – Modify - Field Description.

Field	Description
Basic Details	
Criteria Code	Displays the uploaded criteria code.
Description	Displays the description for the uploaded criteria.
Product Processor	Displays the product processor of the uploaded criteria.

10. Click save to update the modified fields.


11. Click  to view the created criteria code. The fields are displayed in **Bureau Criteria Maintenance** screen.

Figure 111 : Bureau Criteria Maintenance - View

For more information on fields, refer to the field description table below.

Table 98: Bureau Criteria Maintenance- View – Field Description.

Field	Description
Basic Details	
Criteria Code	Displays the created criteria code.
Description	Displays the created criteria description.
Product Processor	Displays the product processor of the created criteria.
Criteria Definition	
Rule ID	Displays the rule ID for the created criteria.
Description	Displays the description for the created criteria.
Priority	Displays the priority for the created criteria.
Call All Bureau	Displays if call all bureau has been enabled for the created criteria.
Enable	Displays the criteria code if enabled for the created criteria.
Actions	Displays the actions of the created criteria.

3.38 System Parameter

System parameters define the information or values used throughout the system and drives the behavior of the features. They control the way task is executed, or whether the system performs a particular task. Some of the parameters are set when the system is installed, but the values associated with the parameter needs to be reviewed and is to be maintained.

Example:

- Set minimum days to pull credit bureau report from same bureau from initial pull.
- Credit bureau report purge days.

3.38.1 Create System Parameter

Using this screen, you can create system parameter by updating various details.

To create system parameter:

1. From **Home screen**, click **Core Maintenance**. Under **Core Maintenance**, click **Credit Bureau**.
2. Under **Credit Bureau**, click **Maintenance**.
3. Under **Maintenance**, click **System Parameter**.

- Under **System Parameter**, click **Create System Parameter**

→ The **Create System Parameter** screen is displayed.

Figure 112 : Create System Parameter

- On **Create System Parameter** screen, specify the fields. The fields, which are marked with asterisk, are mandatory. For more information on fields, refer to the field description table below.

Table 99: System Parameter – Field Description.

Field	Description
Basic Details	
Parameter Code	Select the parameter code from the drop-down list.
Parameter Description	Specify a short description for the parameter code.
Product Processor	Select the product processor from the drop-down list for which the parameter is being created.
Value	Specify the value for the parameter code.

- Click **Save**.

The parameter is successfully created and can be viewed using the **View System Parameter** screen.

3.38.2 View System Parameter

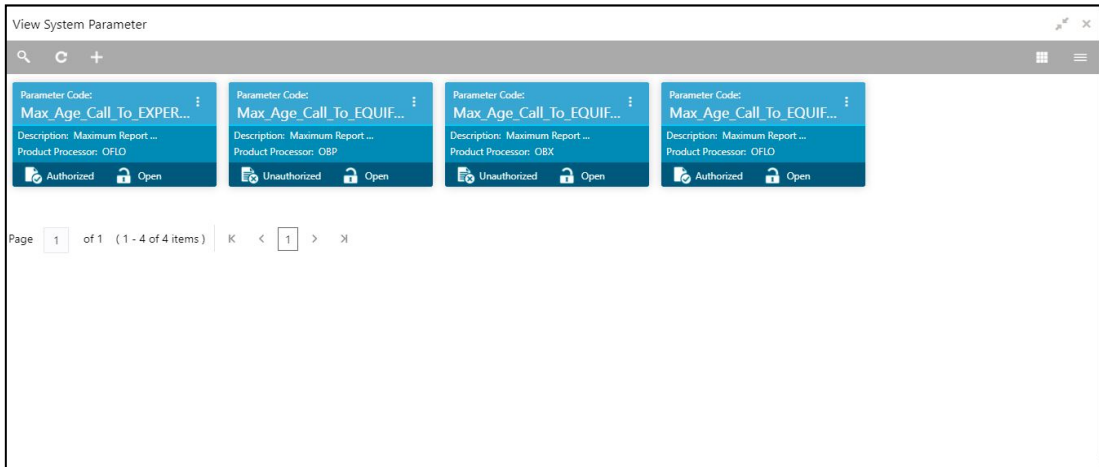
Using this screen, you can view the parameter created using the **Create System Parameter** screen. The status of the created criteria is displayed as **Unauthorized** and **Open**. Once the checker authorizes the parameter, the status is updated to **Authorized** and **Open**.

To view created parameter:

- From **Home screen**, click **Core Maintenance**. Under **Core Maintenance**, click **Credit Bureau**.
- Under **Credit Bureau**, click **Maintenance**.
- Under **Maintenance**, click **System Parameter**.

4. Under **System Parameter**, click **View System Parameter**.
 → The **View System Parameter** screen is displayed.

Figure 113 : Create System Parameter




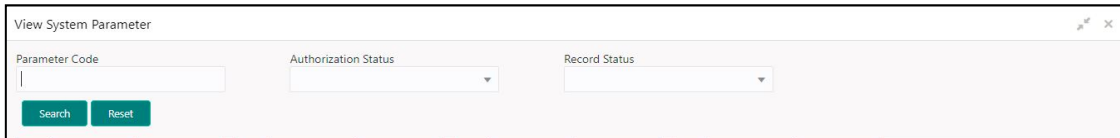

5. Click .
6. Specify the search criteria to fetch the required parameter.
7. Click **Search**.

Figure 114 : View System Parameter –Search Option



For more information on fields, refer to the field description table below.

Table 100: View System Parameter – Field Description.

Field	Description
The following fields are displayed, once you click  .	
Parameter Code	Displays the criteria code.
Authorization Status	Select the authorization status of the criteria. The options are: <ul style="list-style-type: none"> • Authorized • Unauthorized

Field	Description
Record Status	Select the record status of the criteria. The options are: <ul style="list-style-type: none"> • Open • Close

The following fields are displayed in the widget.

For more information on fields, refer to the field description table below.

Table 101: View System Parameter – Field Description.

Field	Description
Parameter Code	Displays the parameter code.
Description	Displays the description of the parameter code.
Product Processor	Displays the product processor of the parameter.



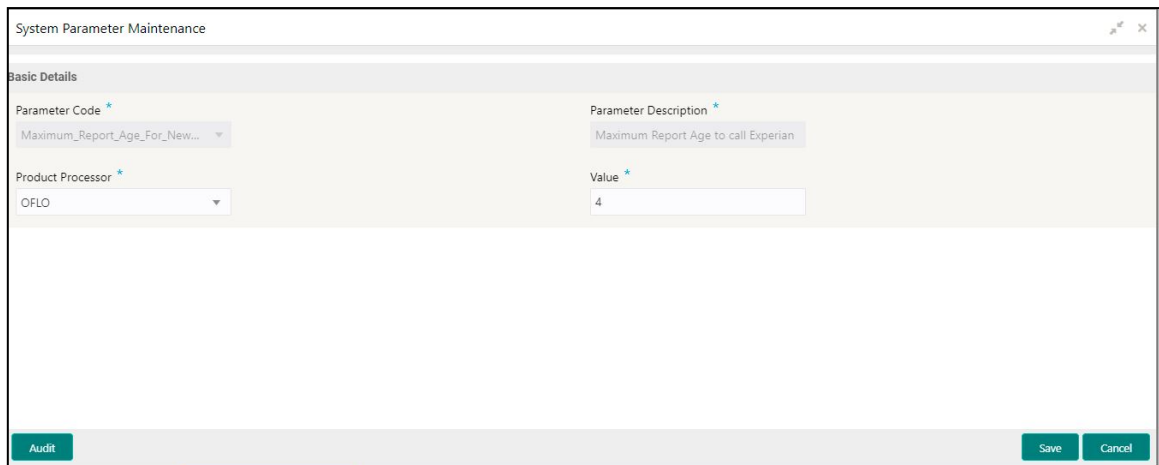
- Click this icon  to unlock, delete, authorize or view the created parameter code.
- Click  unlock to modify the following fields. The fields are displayed in the **System Parameter Maintenance** screen.
 - Product Processor
 - Value

Figure 115 : System Parameter Maintenance - Modify



For more information on fields, refer to the field description table below.

Table 102: System Parameter Maintenance – Modify – Field Description.

Field	Description
Basic Details	
Parameter Code	Displays the created parameter code.

Field	Description
Parameter Description	Displays the description for the created parameter.
Product Processor	Displays the product processor of the created parameter.
Value	Displays the value of the parameter.

10. Click save to update the modified fields.


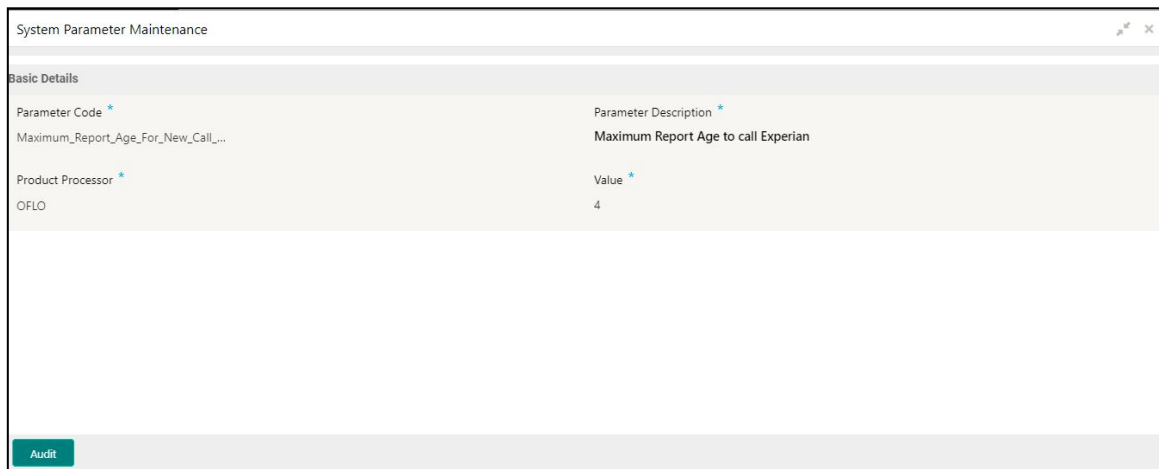
11. Click  to view the created parameter code. The fields are displayed in **System Parameter Maintenance** screen.

Figure 116 : System Parameter Maintenance - View



For more information on fields, refer to the field description table below.

Table 103: System Parameter Maintenance- View – Field Description.

Field	Description
Basic Details	
Parameter Code	Displays the created parameter code.
Parameter Description	Displays the created parameter description.
Product Processor	Displays the product processor of the created parameter.
Value	Displays the value for the created parameter.

3.39 Integrating Decision Service with Oracle Banking Routing Hub

3.39.1 Oracle Banking Routing Hub Configuration

Need to import existing service consumer and providers in the system. Service Consumer is oracle product, which invokes oracle banking routing hub API, oracle banking routing hub analyses evaluates destination product processor and transform data into format of the same. Service Consumer comprises of the source and destination integration details.

Navigation: **Core Maintenance -> Routing Hub -> Service Consumers**

Figure 117: Service Consumers

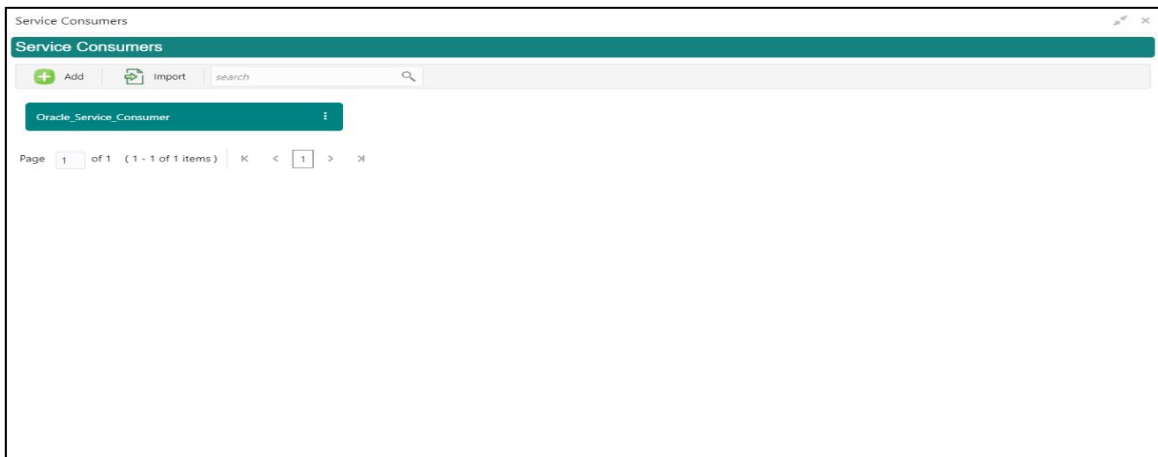


Figure 118: Oracle Banking Routing Hub Configuration

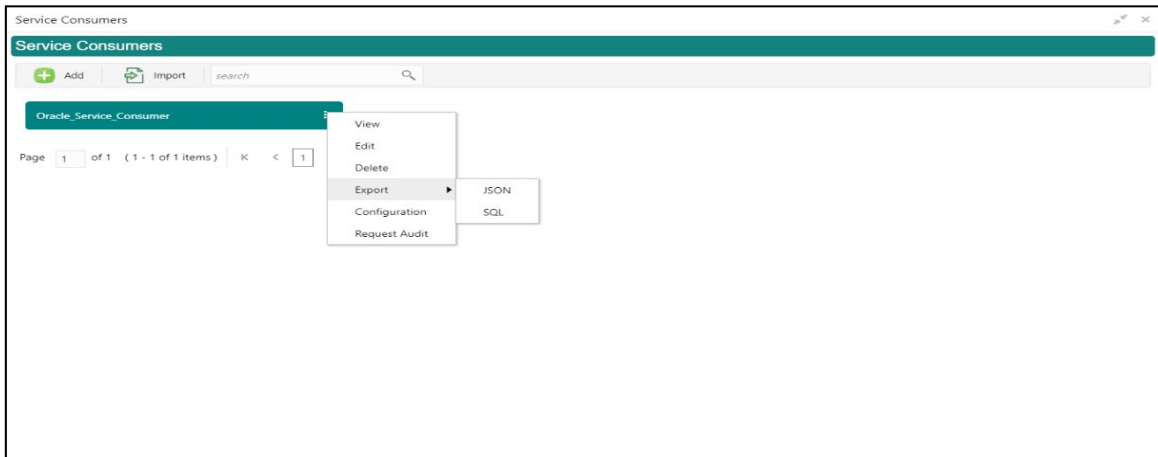


Table 104: Oracle Banking Routing Hub Configuration

Component Name	Component Type	Condition	Comments
Add	Button		Pops up add dialog
Import	Button		Pops up import dialog
Search	Combo Box One		Provides search functionality with case insensitive (Service Consumer Name)
View	menu option	Non-editable	Pops up view dialog

Edit	menu option		Pops up edit dialog
Delete	menu option		
Export	Sub menu item		
JSON	menu option		Exports in JSON
SQL	menu option		Exports in SQL
Configuration	menu option		Pops up configuration dialog
Request Audit	menu option		Pops up request audit log

3.39.1.1 Add

You can create Service Consumer manually.

Navigation: **Service Consumers -> Add**

Figure 119: Add

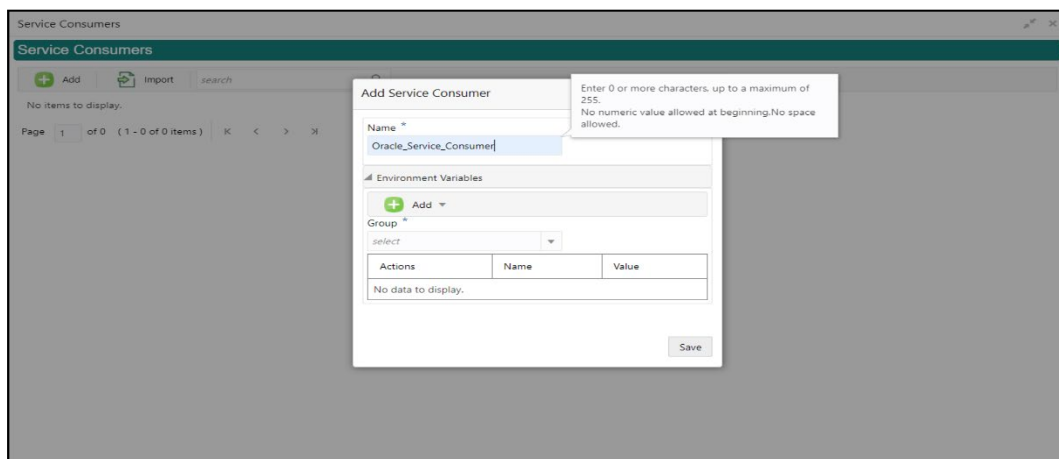


Table 105: Add

Component Name	Component Type	Is Mandatory	Data type	Validation	Comments
Name	Text Box	Yes	Alphanumeric with special characters	<ul style="list-style-type: none"> Name cannot be blank Specify 0 or more characters, up to a maximum of 255 No numeric value at beginning and no space allowed 	Unique Service Consumer name

Environment Variables	Table Content				
Save	Button				Saves the Service Consumer

3.39.1.1 Environment Variables

You can define the group of variables that can be accessed throughout the specific consumer's configuration.

Below is the syntax for accessing environment variables:

\$env.Environment_Group_Name.Environment_Variable_Name

such as : \$env.COMMON.BRANCH_CODE

Figure 120: Environment Variables

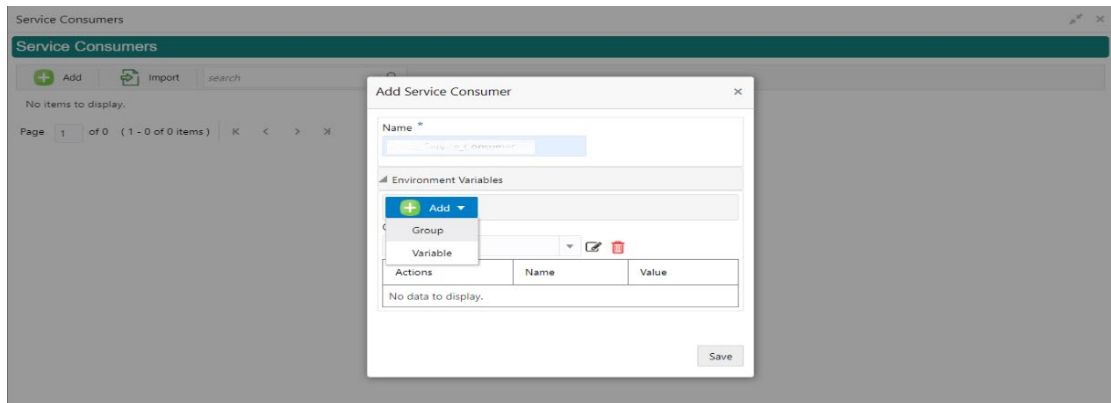


Figure 121: Environment Variables

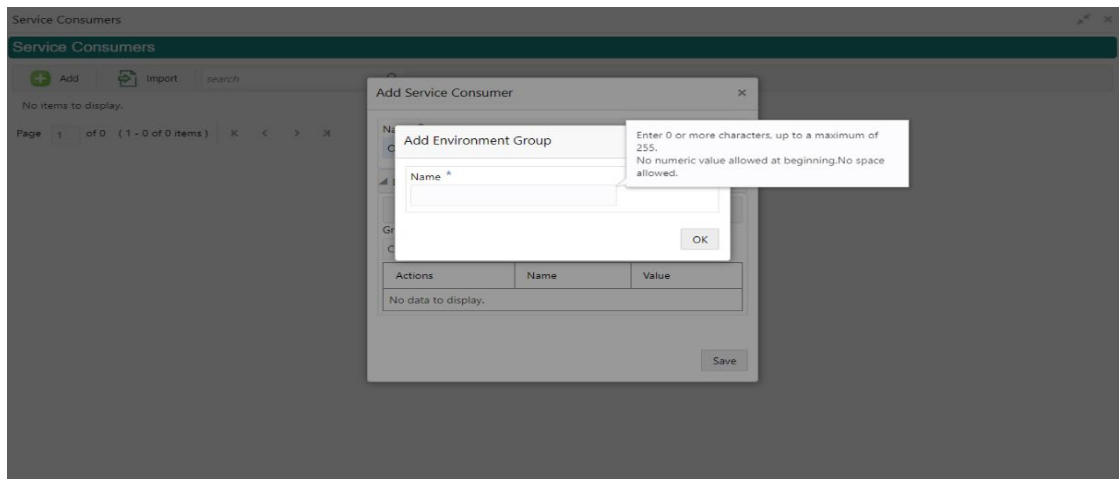


Figure 122: Environment Variables

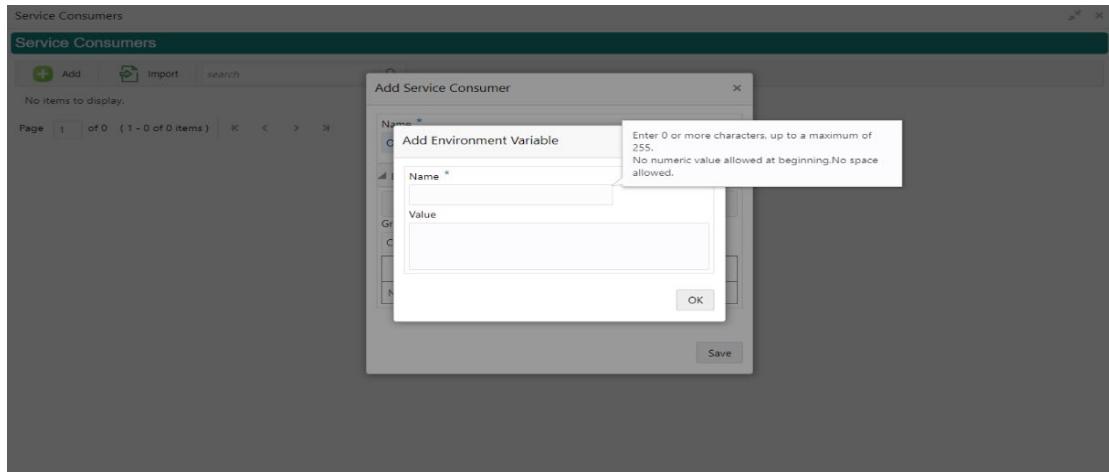


Table 106: Environment Variables

Component Name	Component Type	Is Mandatory	Data type	Validation	Comments
Add	Menu Item				
Group	Menu option				Pops up add group dialog
Variable	Menu option				Pops up add variable dialog
Navigation: Service Consumer -> Environment Variables -> 3 dot icon (operation menu)					
Edit	menu option / icon				Pops up edit dialog
Delete	menu option / icon				Deletes group / variable
Environment Group / Variable					
Name	Text Box	Yes	Alphanumeric with special characters	<ul style="list-style-type: none"> Name cannot be blank Specify 0 or more characters, up to a maximum of 255 	

				<ul style="list-style-type: none"> No numeric value at beginning and no space allowed 	
Value	Text Area				Value can either be hardcoded or Velocity mapping.
OK	Button				Saves the group / variable and displays it in the list

3.39.1.2 Import

You can create a service consumer by importing the JSON file and manually selecting the service Providers or select all providers that needs to be imported.

Navigation: Service Consumers -> Import

Figure 123: Import

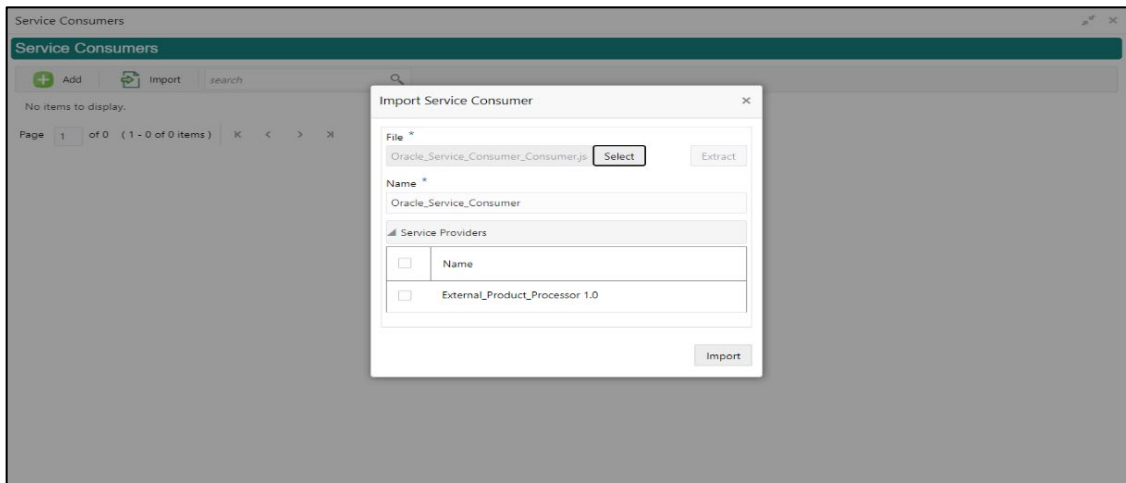


Table 107: Import

Component Name	Component Type	Is Mandatory	Data type	Validation	Condition	Comments
File	File picker	Yes		Allows only to select one file	Accepts only JSON file	Pops up file selection dialog box
Extract	Button	Yes				Extracts Consumer Name and Service Provider list from JSON file and displays it in the respective elements.
Name	Text Box	Yes	Alphanumeric with special characters	<ul style="list-style-type: none"> Name cannot be blank Specify 0 or more characters, up to a maximum of 255 No numeric value at beginning and no space allowed 	Editable	Unique
Service Provider	Collapsible Header & Content					Displays the list of service providers that are present in JSON file
Import	Button					Imports Service Consumer

Note: Below data needs to be changed after importing consumer configuration file:

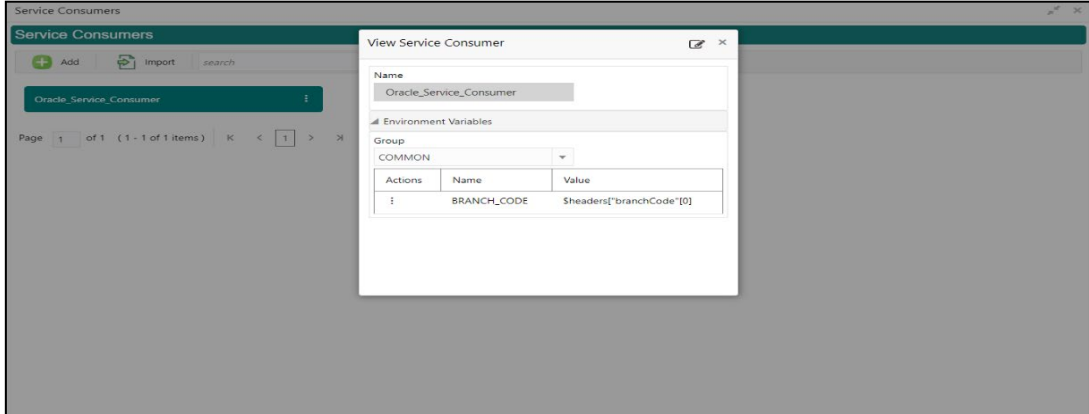
- Implementation Host and Port
- Implementation Authentication Password

3.39.1.3 View

You can view consumer details and can switch to edit form by clicking on edit icon.

Navigation: **Service Consumers -> Operation Menu (3-dot icon) -> View**

Figure 124: View

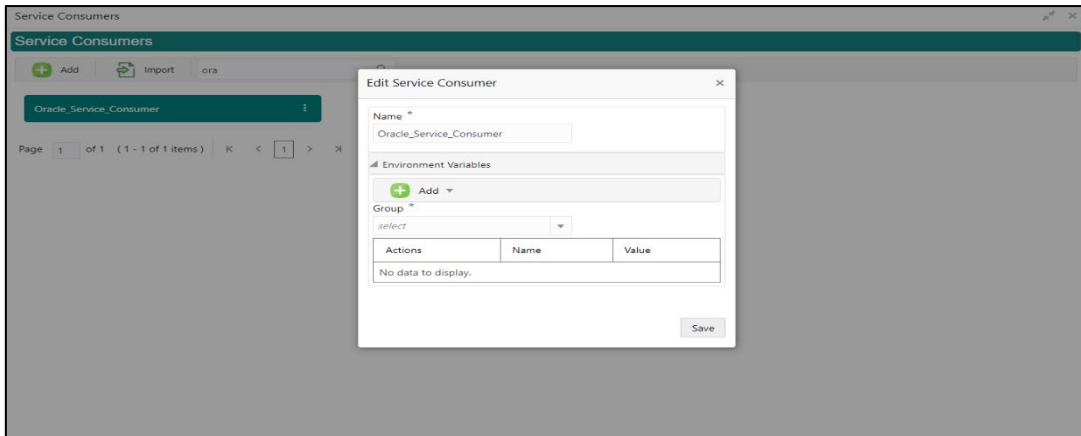


3.39.1.4 Edit

You can modify the consumer details.

Navigation: **Service Consumers -> Operation Menu (3-dot icon) -> Edit**

Figure 125: Edit

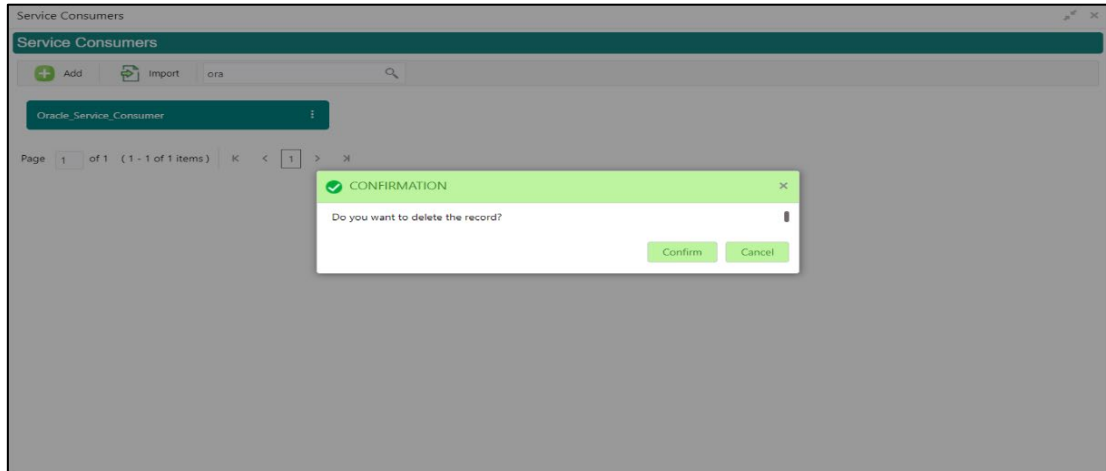


3.39.1.5 Delete

You can delete the consumer.

Navigation: **Service Consumers** -> **Operation Menu (3-dot icon)** -> **Delete**

Figure 126: Delete

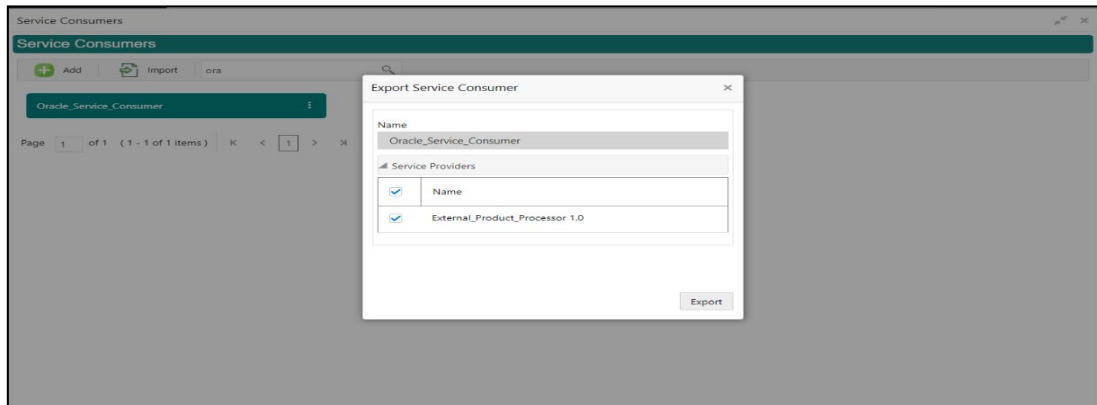


3.39.1.6 JSON Export

You can export the consumer configuration as JSON file.

Navigation: **Service Consumers** -> **Operation Menu (3-dot icon)** -> **Export** -> **JSON**

Figure 127: JSON Export



NOTE: You have an option to select service providers from the list that needs to be exported or can click on Select All option for all service providers.

JSON Export feature will export below data:

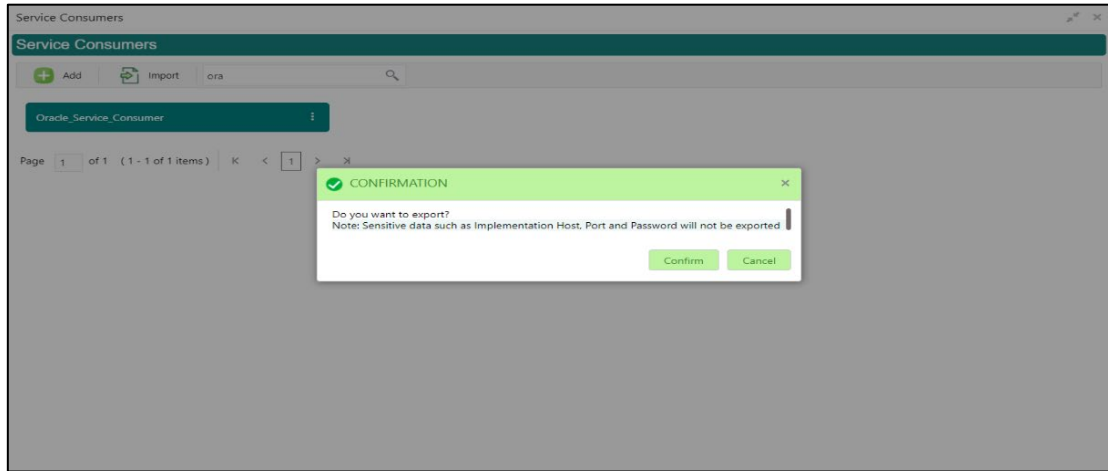
- Selected service consumer
- All consumer services
- Selected service providers with services
- Default implementation of selected service providers with services (without Host, Port and Authentication Password)
- Default transformations
- All default implementation routes

3.39.1.7 SQL Export

You can export the consumer configuration as SQL file.

Navigation: **Service Consumers -> Operation Menu (3-dot icon) -> Export -> SQL**

Figure 128: SQL Export



NOTE: SQL Export feature will export entire configuration without Host, Port and Authentication Password details.

3.39.2 Service Providers

Service Providers are the product processors configure to process request send by oracle banking routing hub on behalf of service consumers.

Service Provider comprises of destination integration details.

Navigation: **Core Maintenance -> Routing Hub -> Service Consumers -> Specific Service Consumer -> Service Providers**

Figure 129: Service Providers

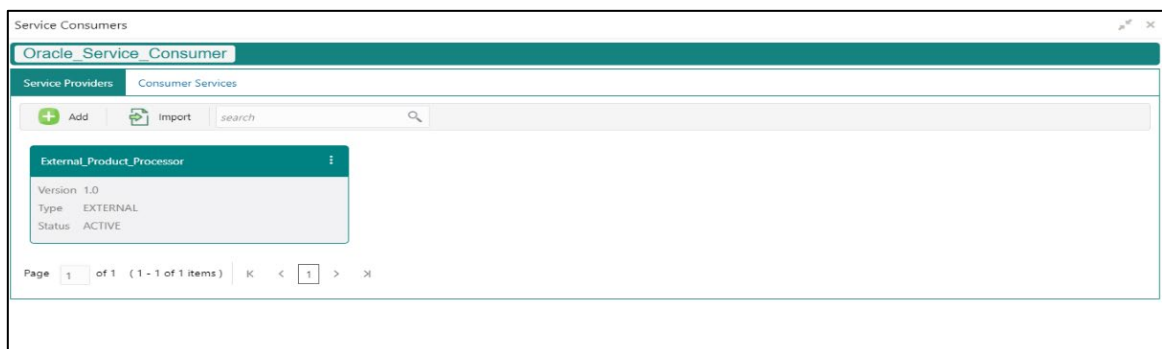


Figure 130: Service Providers

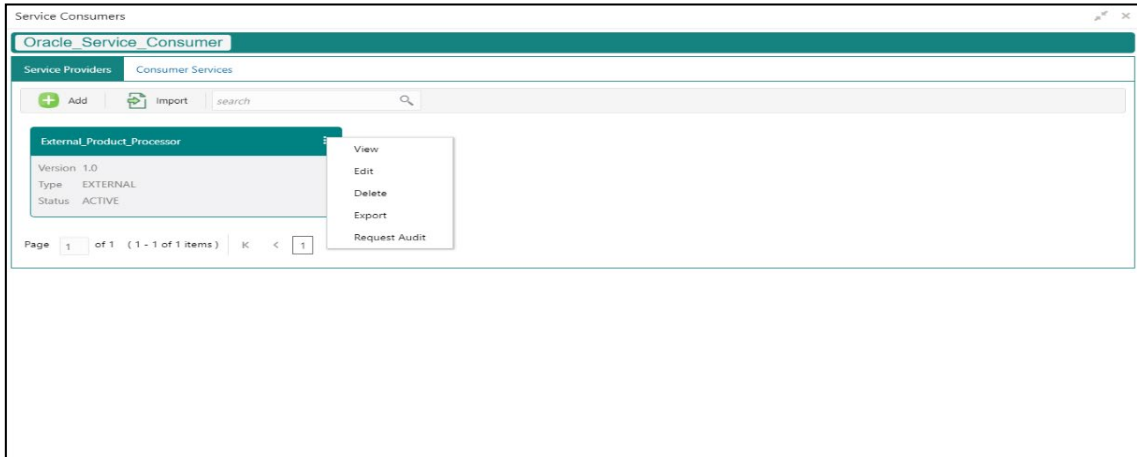


Table 108: Service Providers

Component Name	Component Type	Condition	Comments
<Service Consumer>	Button		Navigates back to Service Consumers
Add	Button		Pops up add dialog
Import	Button		Pops up import dialog
Search	Combo Box One		Provides search functionality with case insensitive (Service Provider Name)
Navigation: Service Providers -> 3 dot icon (operation menu)			
View	menu option	Non-editable	Pops up view dialog
Edit	menu option		Pops up edit dialog
Delete	menu option		
Export	menu option		Exports in JSON
Request Audit	menu option		Pops up request audit log

3.39.2.1 Add

You can create service provider manually.

Navigation: **Service Providers-> Add**

Figure 131: Add

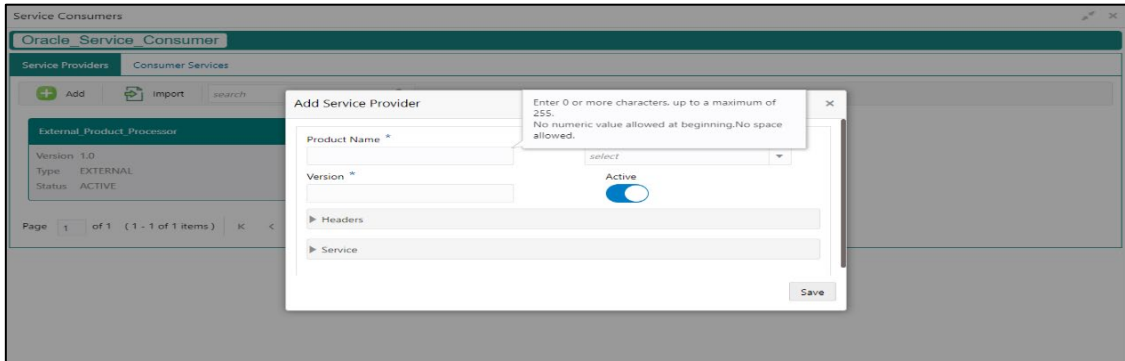


Table 109: Add

Component Name	Component Type	Is Mandatory	Data type	Validation	Comments
Product Name	Text Box	Yes	Alphanumeric with special characters	<ul style="list-style-type: none"> Name cannot be blank Specify 0 or more characters, up to a maximum of 255. No numeric value at beginning and no space allowed. 	Unique provider name
Type	Combo Box One	Yes			Predefined Values: INTERNAL / EXTERNAL

Component Name	Component Type	Is Mandatory	Data type	Validation	Comments
Version	Text Box	Yes	Number	<ul style="list-style-type: none"> Version cannot be blank Specify 0 or more characters, up to a maximum of 255. Specify only numeric or decimal values. 	Unique provider version
Active	Switch				Predefined Values: ACTIVE / INACTIVE If provider is marked as inactive, then all related routes will be stopped.
Headers	Collapsible Header & Content				Provider specific headers
Service	Collapsible Header & Content				Provider specific service details
Save	Button				Saves the Service Provider

3.39.2.2 Headers

External product processor might require some standard headers to be passed along with the request.

You can specify the headers which are required by service endpoints for its all implementations but not present in swagger file.

These headers can be configured in oracle banking routing hub using the steps given below.

Figure 132: Headers

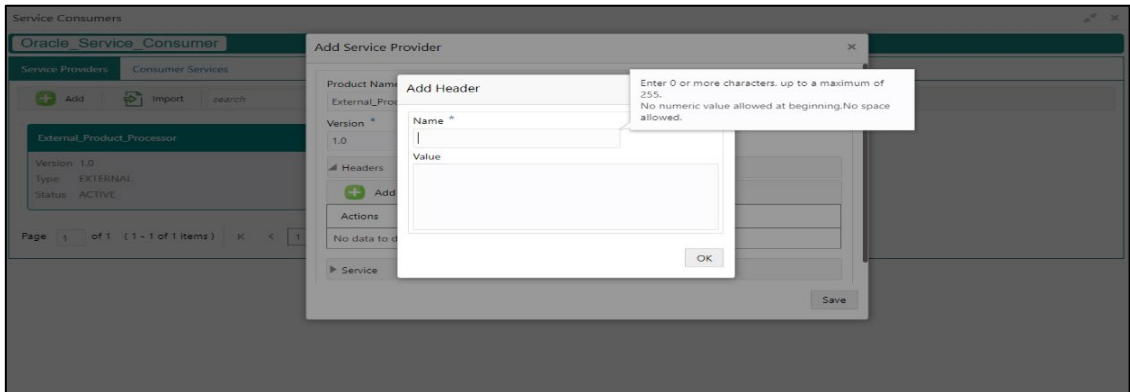


Figure 133: Headers

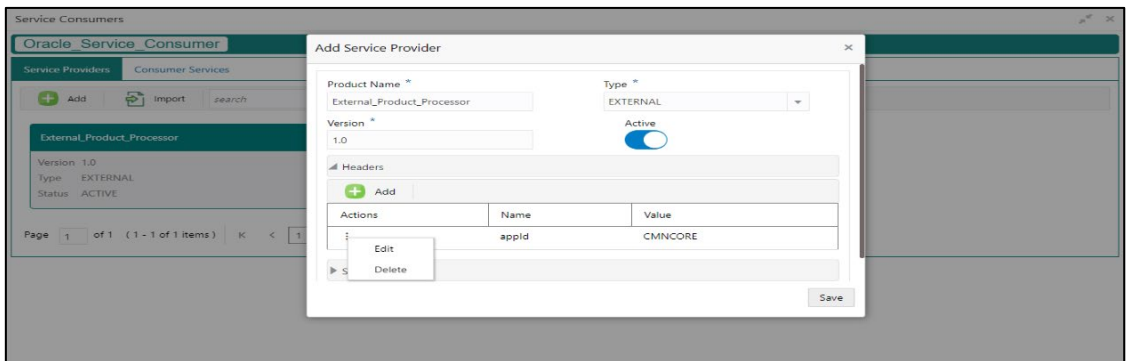


Table 110: Headers

Component Name	Component Type	Is Mandatory	Data type	Validation	Comments
Add	Button				Pops up add dialog
Edit	menu option				Pops up edit dialog
Delete	menu option				Deletes header

Component Name	Component Type	Is Mandatory	Data type	Validation	Comments
Navigation: Service Providers -> Headers -> Add					
Name	Text Box	Yes	Alphanumeric with special characters	<ul style="list-style-type: none"> Name cannot be blank Specify 0 or more characters, up to a maximum of 255. No numeric value at beginning and no space allowed. 	
Value	Text Area	Yes	Alphanumeric with special characters	<ul style="list-style-type: none"> Value cannot be blank Specify 0 or more characters, up to a maximum of 255. No space allowed. 	Value either can be hardcoded or can be Velocity mapping.
OK	Button				Saves the header details and displays it in the list

3.39.2.3 Service

Figure 134: Service

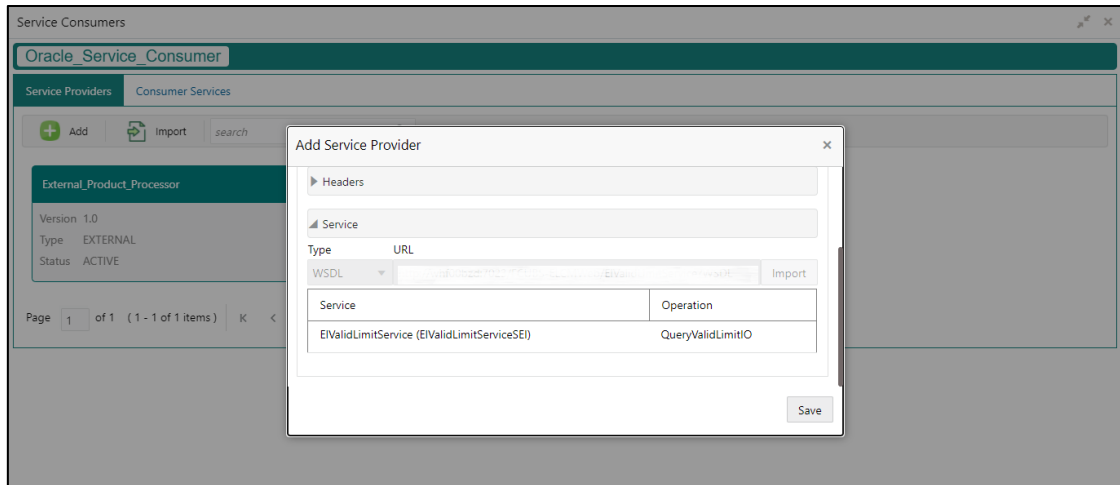


Table 111: Service

Component Name	Component Type	Is Mandatory	Comments
Type	Combo Box One	Yes	Predefined Values: WSDL / SWAGGER
URL	Text Box	Yes	Service URL of the file location
Gateway Prefix	Text Box		Gateway Prefix is context path of below formatted URL http://host:port/gateway-prefix/endpoint
Import	Button		Extracts the service information from URL and displays it in the Service list

3.39.2.4 WSDL

The Web Services Description Language (WSDL) is an XML-based interface description language that is used for describing the functionality offered by a web service.

Currently, non-SSL WSDL URL is only supported.

NOTE: In case there is a change in wsdl file, then same wsdl file need to be imported again in order to update the provided service information in routing hub.

3.39.2.5 SWAGGER

Swagger is an Interface Description Language for describing RESTful APIs expressed using JSON.

Currently, Swagger 2.0 & Open API 3.0 both are supported.

NOTE: In case there is a change in swagger file, then same swagger file need to be imported again in order to update the provided service information in routing hub.

3.39.2.6 Import

You can create a service provider by importing the JSON file.

Navigation: **Service Providers -> Import**

Figure 135: Import

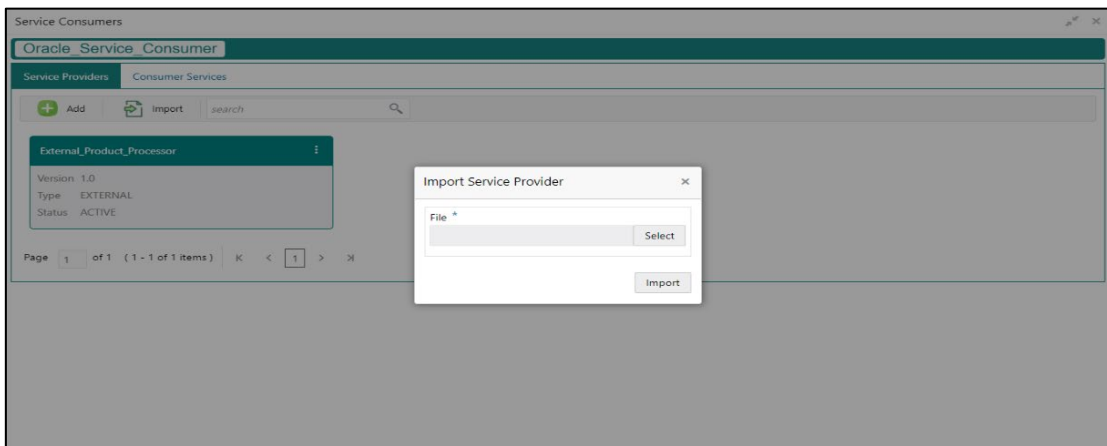


Table 112: Import

Component Name	Component Type	Is Mandatory	Validation	Condition	Comments
File	File picker	Yes	Allows only to select one file	Accepts only JSON file	Pops up file selection dialog box
Import	Button				Imports Service Provider

NOTE: Below data needs to be changed after importing provider configuration file:

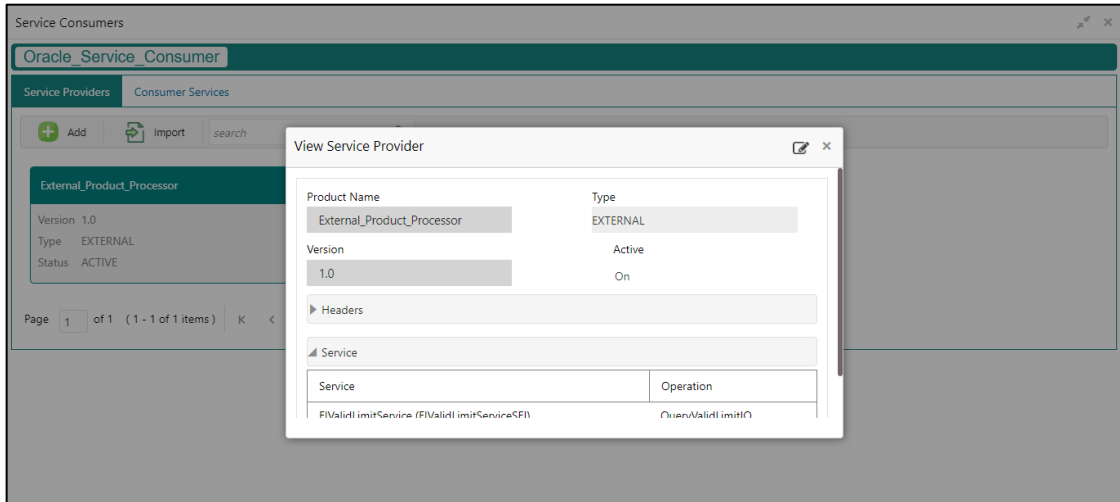
- Implementation Host and Port
- Implementation Authentication Password

3.39.2.7 View

You can view provider details and can switch to edit form by clicking on edit icon.

Navigation: **Service Providers -> Operation Menu (3-dot icon) -> View**

Figure 136: Oracle Banking Routing Hub Configuration

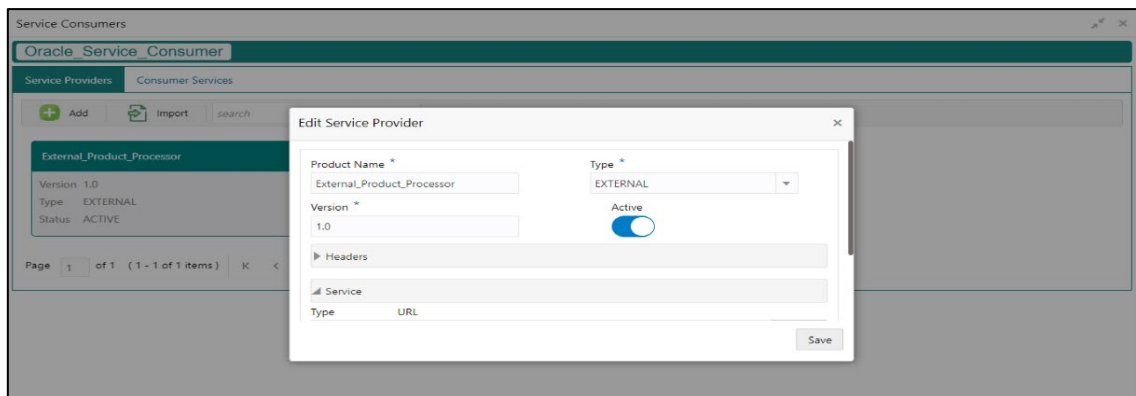


3.39.2.8 Edit

You can modify the provider details.

Navigation: **Service Providers -> Operation Menu (3-dot icon) -> Edit**

Figure 137: Edit

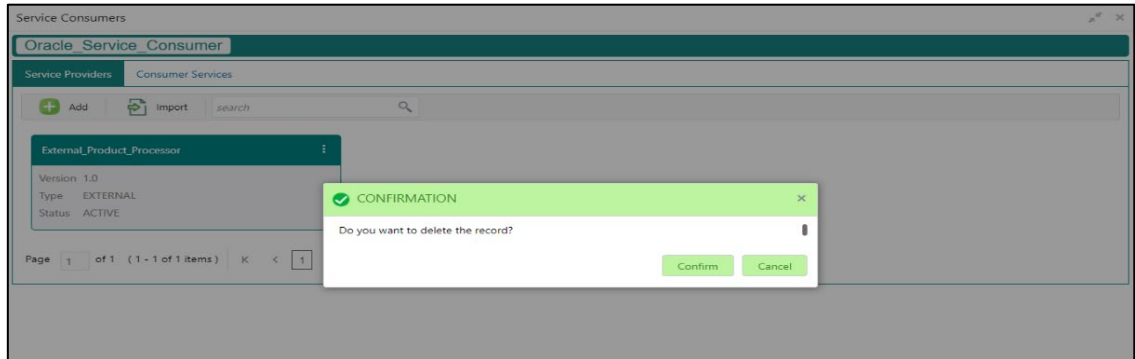


3.39.2.9 Delete

You can delete the provider.

Navigation: **Service Providers -> Operation Menu (3-dot icon) -> Delete**

Figure 138: Delete

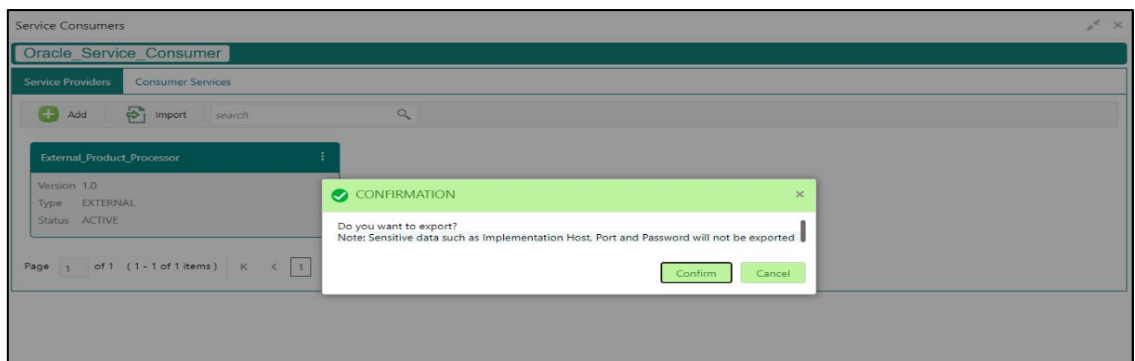


3.39.2.10 Export

You can export the provider configuration as JSON file.

Navigation: **Service Providers -> Operation Menu (3-dot icon) -> Export**

Figure 139: Export



NOTE: Below data is not be exported:

- Implementation Host
- Implementation Port
- Implementation Authentication Password

The above data needs to be configured manually after importing the configuration file.

Same has been mentioned in Import section

3.39.3 Oracle FLEXCUBE Onboarding to Decision Service Configuration

3.39.3.1 Fetch Credit Decision

Figure 140: Fetch credit decision – Header

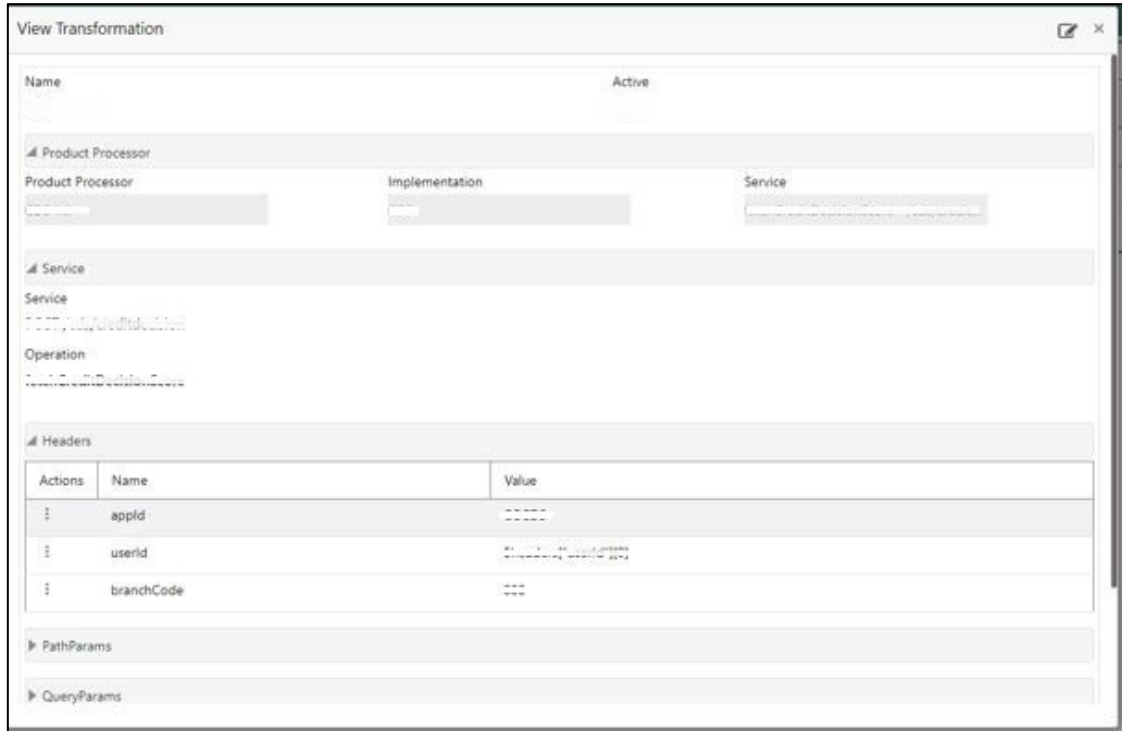


Figure 141: Fetch credit decision - Transformation:

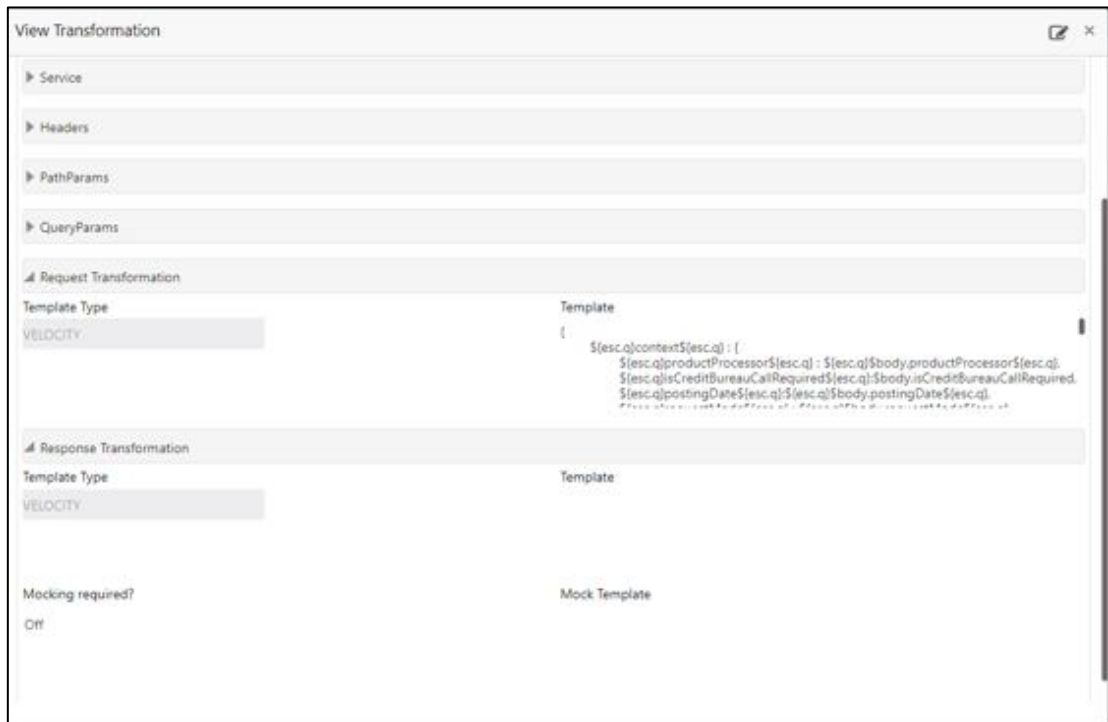
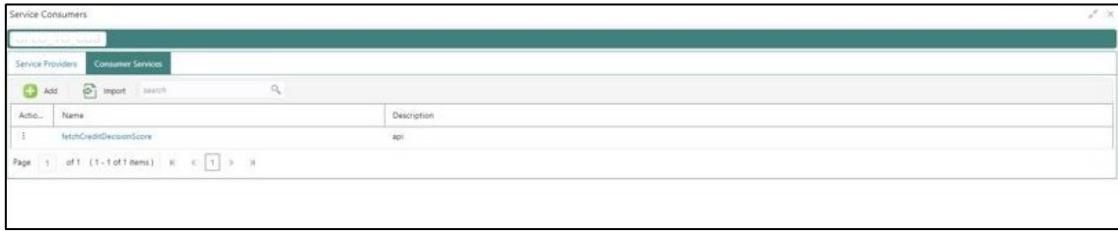


Figure 142: Consumer Services



3.40 Decision Service

3.40.1 Overview

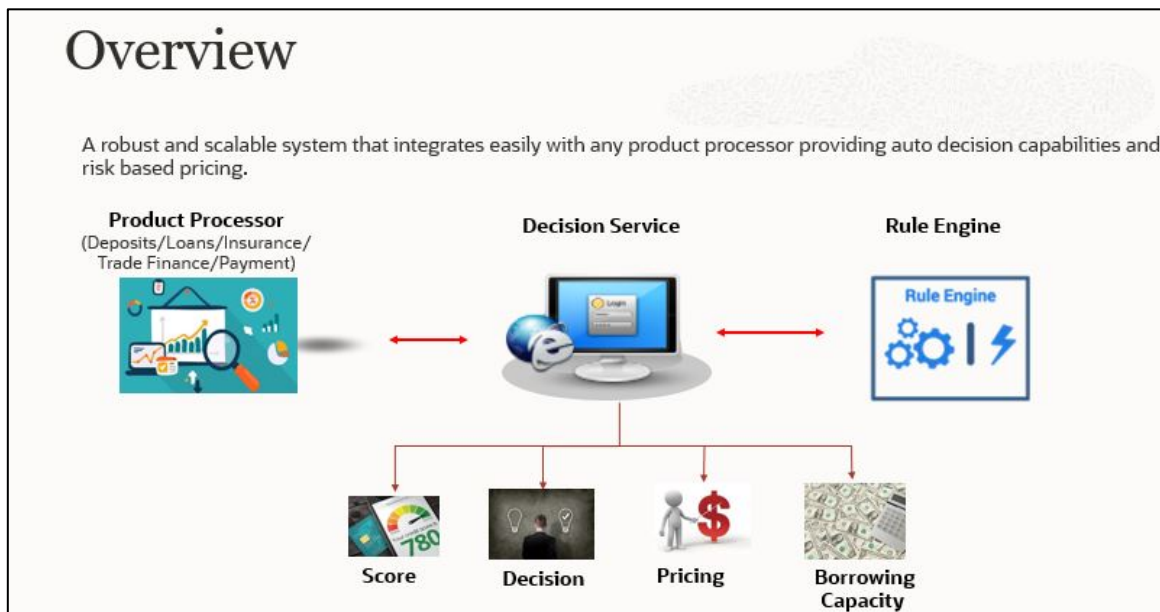
The decision service provides automatic decision making capabilities that can allow lenders to develop simple business processes and strengthen the decision-making process.

It gives flexibility to adjust the credit scoring model according to the lending policy.

When an organization calls the decision service to make a decision based on data attributes shared, system solves the best fit scoring model and provide scores and decisions.

Decision Service is a robust and scalable system that can be easily integrated with any product processor providing auto decision capability and risk based pricing.

Figure 143 : Decision Service Overview



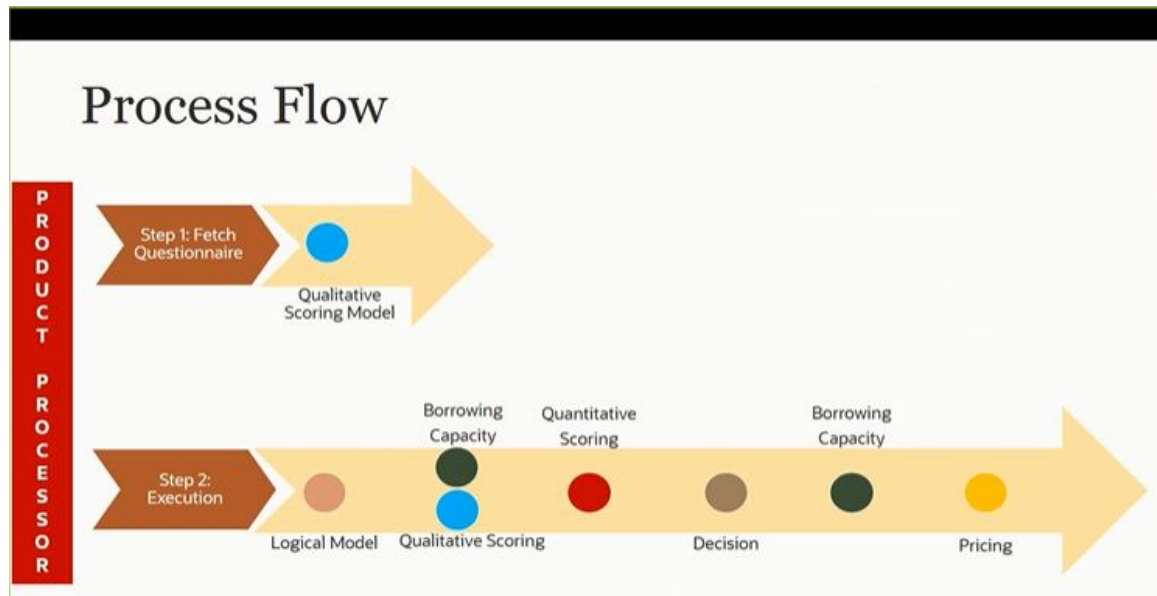
Decision service can be called from various product processor such as Collections, Deposits, Loans, Insurance, Trade Finance or Payment etc. This product processor calls the decision service and the decision service internally uses the rule engine to configure various complex rules.

The decision service can calculate behavioral scores and suggest the best recommended collection strategy accordingly. For lending products, it can offer a credit score, a decision based on the score, the recommended rate of interest and the ability to calculate which is the maximum amount that can be borrowed by the applicant.

3.40.2 Process Flow

The below diagram depicts the entire process flow of how decision service works.

Figure 144 : Decision Service Process Flow



3.40.2.1 Questionnaire

The first step is to get the questionnaire. The product processor sends the data of all the applicants in the application. A qualitative scoring model is resolved for each applicant and this information along with the details of the questionnaire is sent back to the product processor. The product processor captures the response to the questions and sends back as part of the second step which is the execution of the credit decision.

3.40.2.2 Logical Model

First step in execution of the credit decision is logical screening. In this application pre screening is done to check the basic eligibility of the application as per the bank's policy. For example, if the bank's policy is not to fund to property in flood prone area, then as a part of this step, if the property is in flood prone area then the application will be rejected and the application will not be processed further. Or the applicants minimum age should be more than 18 and the applicant applying is of less than 18, in that case the application is rejected and it will not be processed further.

3.40.2.3 Borrowing Capacity

Once eligibility is checked, the next step is borrowing capacity. This is the maximum loan amount the applicant is eligible for. The stage at which it is to be calculated depends on the configuration made. It can be calculated before the scoring after the decision. The loan amount considered for decision is minimum of requested loan amount or the amount calculated for scoring, decision and pricing.

3.40.2.4 Qualitative Score

After borrowing capacity, the next step is qualitative scoring done using the feedback from the applicants for questionnaire.

3.40.2.5 Quantitative Score

After qualitative scoring next step is quantitative scoring where scoring is done using application and bureau attributes such as salary, number of credit lines, bureau score etc.

3.40.2.6 Decision and Grade

The decision on the application is done based on the quantitative and qualitative scores. The decision can be approve, manual or decline.

The borrowing capacity can also be calculated after the decision, in this case, the amount calculated will be used only for pricing.

3.40.2.7 Pricing

The last step is to determine the recommended interest rate. This is a risk-based price that refers to offering different interest rates to different customers depending on their risk exposure.

3.40.3 Strategy Configuration

Decision service is used for multiple purposes such as borrowing capacity, borrowing capacity plus pricing, only pricing, only decision, logical plus decision etc. System should have an ability to configure the strategy like when the decision service is being called for borrowing capacity, should the request pass through the logical check. In addition, the product processor can configure different strategies for different product types or customer types. Strategy configuration allows the product processor to configure the strategy as per its requirements for all the modes for which decision service can be called. Separate strategy can be defined for origination, servicing or collection. In addition, multiple strategy can be defined for the same module like for origination i.e. multiple strategy can be defined. This maintenance allows the product processor to configure the strategy according to its need for all the modes for which the decision service can be called for.

The various request types using which the product processor can call the decision service are mentioned below:

- Score, Decsion and Pricing
- Score and Decision
- Scores
- Pricing and Borrowing Capacity
- Pricing

- Borrowing Capacity
- Decision
- Qualitative Score
- Quantitative Score

3.41 Product Processor

The source system calling the decision system for decisioning the credit application is defined as product processor. There are multiple data segments like account information, customer details, collateral details, credit bureau information or any additional notes if any is received from the product processor for credit decisioning and pricing in decision service.

3.41.1 Create Product Processor

Using this screen, you can create product processor.

To create a Product Processor:

1. From **Home screen**, click **Core Maintenance**, Under **Core Maintenance**, click **Credit Decision**.
2. Under **Credit Decision**, click **Maintenance**.
3. Under **Maintenance**, click **Product Processor**.
4. Under **Product Processor**, click **Create Product Processor**.

→ The **Create Product Processor** screen is displayed.

Figure 145 : Create Product Processor

5. On **Create Product Processor** screen, specify the fields. The fields, which are marked with asterisk, are mandatory. For more information on fields, refer to the field description table below.

Table 113 : Create Product Processor - Field Description

Field	Description
Basic Details	

Field	Description
Product Processor Code	Specify the unique product processor code.
Product Processor Description	Specify a short description for the product processor.
Effective Date	Specify the effective date.
Expiry Date	Specify the expiry date.

6. Click **Save**.

The product processor is created successfully and can be viewed using the **View Product Processor** screen.

3.41.2 View Product Processor

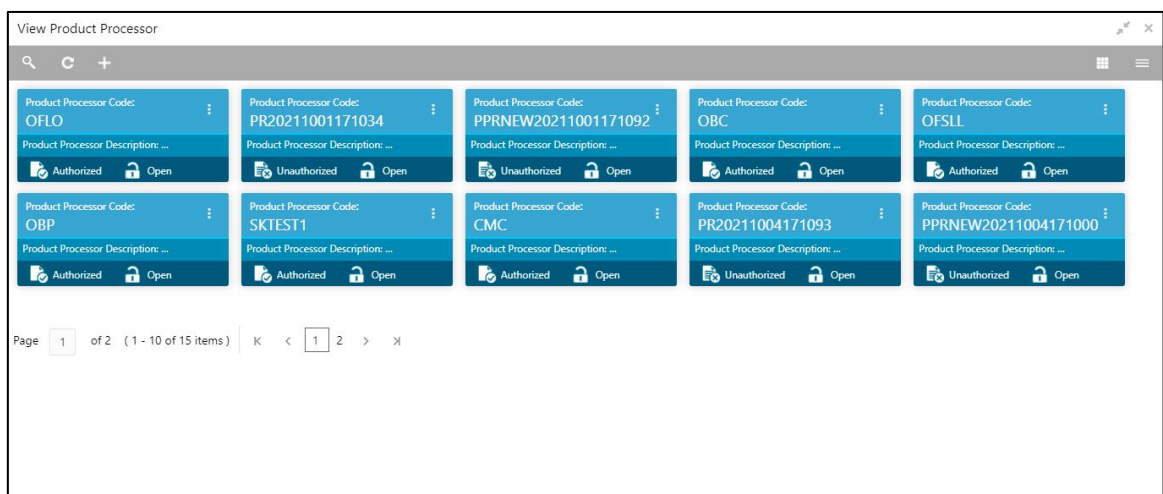
Using this screen, you can view the product processor created using the **Create Product Processor** screen. The status of the created product processor is displayed as **Unauthorized** and **Open**. Once the checker authorizes the product processor, the status is updated to **Authorized** and **Open**.

To view created product processor:

1. From **Home screen**, click **Core Maintenance**. Under **Core Maintenance**, click **Credit Decision**.
2. Under **Credit Decision**, click **Maintenance**.
3. Under **Maintenance**, click **Product Processor**.
4. Under **Product Processor**, click **View Product Processor**.

→ The **View Product Processor** screen is displayed.

Figure 146 : View Product Processor



5. Click .


6. Specify the search criteria to fetch the required product processor.

Figure 147 : View Product Processor - Search Option

7. Click **Search**.

For more information on fields, refer to the field description table below.

Table 114 : View Product Processor- Search Option - Field Description


Field	Description
The following fields are displayed, once you click  .	
Product Processor Code	Specify the product processor code.
Product Processor Description	Specify the product processor description.
Authorization Status	Select the authorization status of the product processor. The options are: <ul style="list-style-type: none"> • Authorized • Unauthorized
Record Status	Select the record status of the product processor. The options are: <ul style="list-style-type: none"> • Open • Close


The following fields are displayed in the widget.

For more information on the fields, refer to the field description table below.

Table 115 : View Product Processor - Field Description

Field	Description
Product Processor Code	Displays the product processor code.
Product Processor Description	Displays the product processor description.

8. Click this icon  to modify, delete, authorize or view the created product processor.
9. To authorise the product processor, see the Authorization process.


10. Click  to unlock and modify the following fields. The fields are displayed in the **Product Processor Maintenance** screen.

- Product Processor Description
- Effective Date, before authorization
- Expiry Date

Figure 148 : Product Processor Maintenance – Modify

For more information on fields, refer to the field description table below.

Table 116 : Product Processor Maintenance - Modify - Field Description

Field	Description
Once you click the  option, the following fields are displayed in the Product Processor Maintenance screen.	
Basic Details	
Product Processor Code	View the product processor code.
Product Processor Description	View the product processor description. You can modify the same.
Effective Date	View the effective date of product processor. You can modify the same before authorization if it is future dated.
Expiry Date	View the expiry date of product processor. You can modify the same.

11. Click **Save** to update the modified fields.


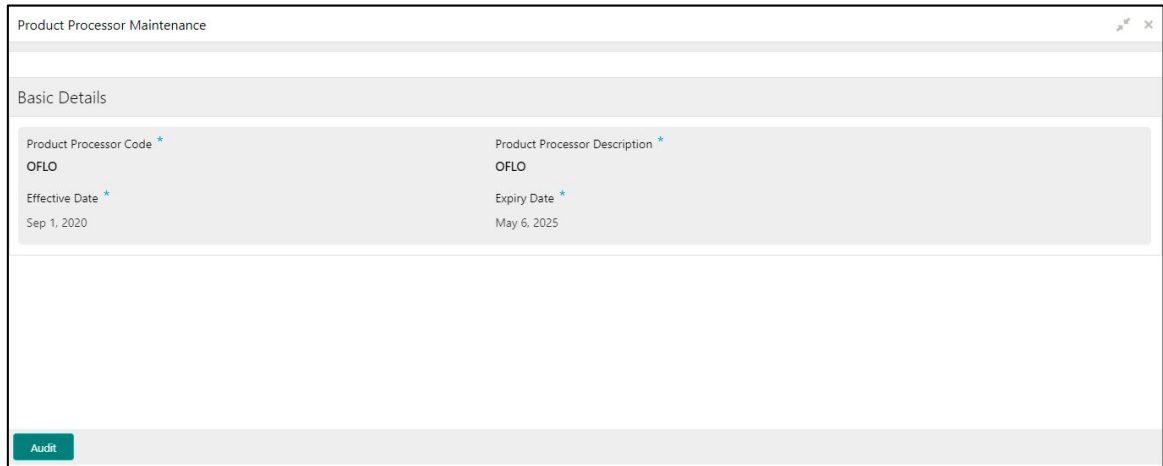

12. Click  to view the created product processor. The fields are displayed in **Product Processor Maintenance** screen.

Figure 149 : Product Processor Maintenance – View



For more information on fields, refer to the field description table below.

Table 117 : Product Processor Maintenance - View - Field Description

Field	Description
<p>Once you click the  option, the following fields are displayed in the Product Processor Maintenance screen.</p>	
Basic Details	
Product Processor Code	View the product processor code.
Product Processor Description	View the product processor description. You can modify the same.
Effective Date	View the effective date of the created product processor.
Expiry Date	View the expiry date of the created product processor.

3.42 Lookups

Lookups are the service for mapping of keys and values that is used to enrich the description of the data displayed to the user. The lookup screen facilitates to define the contents for drop-down or list of value fields. Lookup fields are used throughout the system. The identified fields will only accept entries stored in this screen. Below are some examples of the lookup fields.

- Static/Enumeration values
 - Credit Bureau: Like Credit Bureau 1, Credit Bureau 2 and Credit Bureau 3.
 - Comparison Operator: Equals, Greater than.
- Dependent lookups based on another selection
 - Based on Country, State should have different values in the lookup.
 - Based on Country, Currency should have different values in the lookup.

3.42.1 Create Lookups

Using this screen, you can create lookup definitions by updating various details.

To create lookups:

1. From **Home screen**, click **Core Maintenance**. Under **Core Maintenance** click, **Credit Decision**.
2. Under **Credit Decision** click, **Maintenance**.
3. Under **Maintenance**, click **Lookups**.
4. Under **Lookups**, click **Create Lookups**.

→ The **Create Lookups** screen is displayed.

Figure 150 : Create Lookups Screen

Lookup Code	Description	Sort Order	Dependent Identifier	Enable
No data to display.				

5. On **Create Lookups** screen, specify the fields. The fields, which are marked with asterisk, are mandatory.

For more information on fields, refer to the field description table below.

Table 118 : Create Lookups - Field Description

Field	Description
Basic Details	
Lookup Type	Specify the unique lookup type name.
Description	Specify the short description for lookup.
+ icon	Click this icon to add a new row.
- icon	Click this icon to delete a row, which is already added.
Lookup Code	Specify the unique lookup code.
Description	Specify the short description for lookup.
Sort Order	Specify the sort order.
Dependent Identifier	Specify the dependent Identifier.
Enable	By default, this option is enabled. Indicates if the lookup is enabled or not.

6. Click **Save**.

The lookups is successfully created and can be viewed using the **View Lookups** screen.

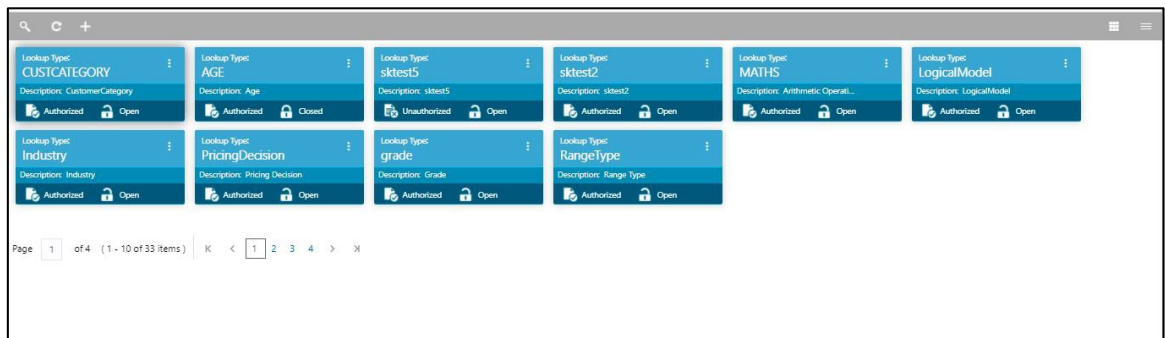
3.42.2 View Lookups

Using this screen, you can view the lookup created using the **Create Lookup** screen. The status of the created lookup is displayed as **Unauthorized** and **Open**. Once the checker authorizes the lookup, the status is updated to **Authorized** and **Open**.

To view created lookups:

1. From **Home screen**, click **Core Maintenance**. Under **Core Maintenance** click, **Credit Decision**.
2. Under **Credit Decision** click, **Maintenance**.
3. Under **Maintenance**, click **Lookups**.
4. Under **Lookups**, click **View Lookups**.
→ The **View Lookups** screen is displayed.

Figure 151 : View Lookups




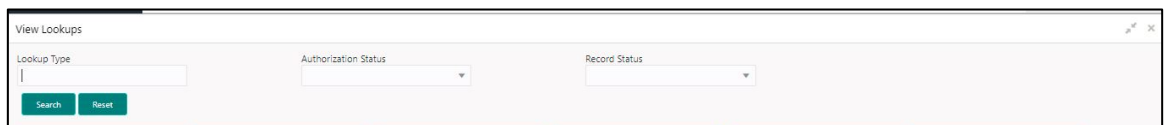
5. Click .
6. Specify the search criteria to fetch the required lookups.


Figure 152 : View Lookups- Search Option



7. Click **Search**.

For more information on fields, refer the field description table below.

Table 119 : View Lookups - Search Option - Field Description

Field	Description
The following fields are displayed, once you click  .	
Lookup Type	Displays the lookup type.
Authorization Status	Select the authorization status of the lookups. The options are: <ul style="list-style-type: none"> • Authorized • Unauthorized
Record Status	Select the record status of the lookups. The options are: <ul style="list-style-type: none"> • Open • Close

The following fields are displayed in the widget.

For more information on the fields, refer to the field description table below.

Table 120 : View Product Processor - Field Description

Field	Description
Lookup Type	Displays the lookup type.
Description	Displays the description of the lookup.


8. Click three dot icon to unlock, delete, authorize or view the created lookups.
9. Click  unlock to modify the following fields. The fields are displayed in the **Lookup Maintenance** screen.
 - Description
 - Lookup Code
 - Sort Order
 - Dependent Identifier
 - Enable

Figure 153 : Lookup Maintenance - Modify

Lookup Code	Description	Sort Order	Dependent Identifier	Enable
<input type="checkbox"/> SILVER	Silver	1		<input checked="" type="checkbox"/>
<input type="checkbox"/> GOLD	Gold	2		<input checked="" type="checkbox"/>
<input type="checkbox"/> HNI	HighNetworthind	3		<input checked="" type="checkbox"/>
<input type="checkbox"/> REGULAR	Regular	4		<input checked="" type="checkbox"/>
<input type="checkbox"/> PLATINUM	Platinum	5		<input checked="" type="checkbox"/>
<input type="checkbox"/> ULTRAHNI	Ultra-HighNetworthind	6		<input checked="" type="checkbox"/>

For more information on fields, refer to the field description table below.

Table 121 : Lookup Maintenance - Modify - Field Description

Field	Description
Basic Details	
Lookup Type	Displays the lookup type.
Description	Displays the description of the lookup. You can modify the same.
Lookup Codes	
+ icon	Click this icon to add a new row.
- icon	Click this icon to delete a row, which is already added.
Lookup Code	Displays the lookup code for the created lookups. You can modify the same.
Description	Displays the description for the created lookups. You can modify the same.
Sort Order	Displays the sort order for the created lookups. You can modify the same.
Dependent Identifier	Displays the dependent identifier for the created lookups. You can modify the same.
Enable	Indicates if the lookup is enabled or not. You can modify the same.

10. Click **Save** to update the modified fields.


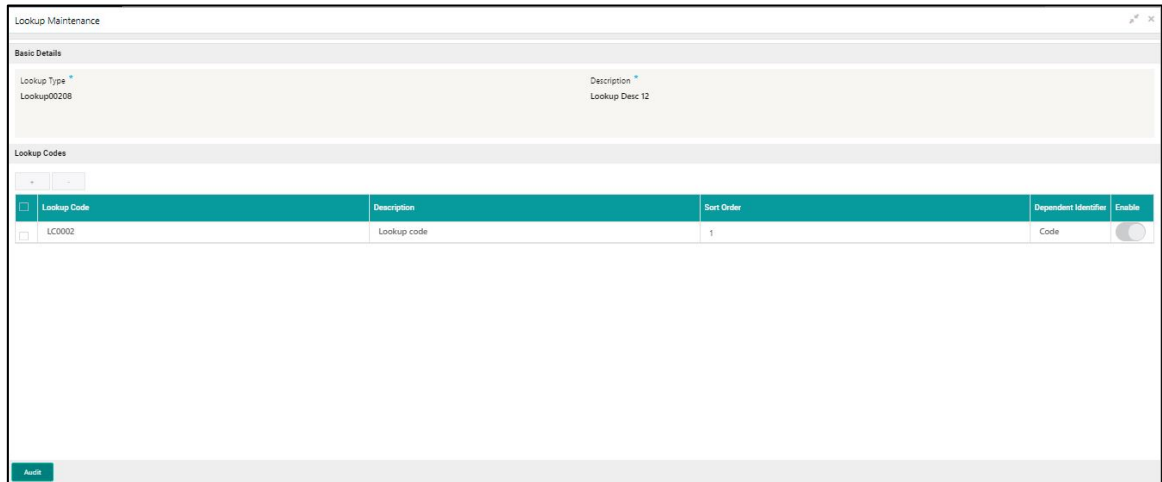
11. Click  to view the created lookup code. The fields are displayed in **Lookup Maintenance** screen.

Figure 154 : Lookup Maintenance – View



Lookup Code	Description	Sort Order	Dependent Identifier	Enable
LC0002	Lookup code	1	Code	<input type="checkbox"/>

For more information on fields, refer to the field description table below.

Table 122 : Lookup Maintenance - View - Field Description

Field	Description
Basic Details	
Lookup Type	Displays the created lookup type.
Description	Displays the created lookup type description.
Lookup Codes	
Lookup Code	Displays the lookup code for the created lookup.
Description	Displays the description for the created lookup.
Sort Order	Displays the sort order for the created lookup.
Dependent Identifier	Displays the dependent identifier for the created lookup.
Enable	Displays the lookup code if enabled for the created lookup.

3.43 Parameters

Parameters define the information or values used throughout the system and drives the behavior of the features. They control the way task is executed, or whether the system performs a particular task. Some of the parameters are set when the system is installed, but the values associated with the parameter needs to be reviewed and is to be maintained.

Example:

- Set minimum days to pull credit bureau report from same bureau from initial pull.
- Credit bureau report purge days.

3.43.1 Create Parameters

Using this screen, you can create parameters by updating various details.

To create parameters:

1. From **Home screen**, click **Core Maintenance**. Under **Core Maintenance** click, **Credit Decision**.
2. Under **Credit Decision** click, **Maintenance**.
3. Under **Maintenance**, click **Parameters**.
4. Under **Parameters**, click **Create Parameters**.

→ The **Create Parameter** screen is displayed.

Figure 155 : Create Parameters

5. On Create Lookups screen, specify the fields. The fields, which are marked with asterisk, are mandatory.

For more information on fields, refer to the field description table below.

Table 123 : Create Parameters - Field Description

Field	Description
Basic Details	
Parameter Code	Select the parameter code from the drop-down list.
Parameter Description	Specify a short description for the parameter code.
Parameter Description	Specify a short description for the parameter code.
Value	Specify the value for the parameter code.

6. Click **Save**.

The parameters is successfully created and can be viewed using the **View Parameters** screen.

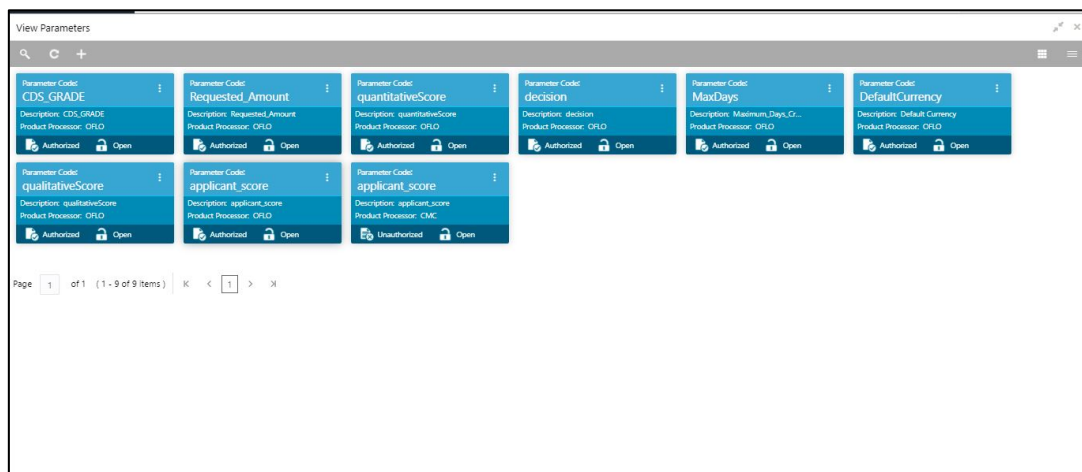
3.43.2 View Parameters

Using this screen, you can view the parameters created using the **Create Parameters** screen. The status of the created criteria is displayed as **Unauthorized** and **Open**. Once the checker authorizes the parameter, the status is updated to **Authorized** and **Open**.

To view created parameters:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance** click, **Credit Decision**.
2. Under **Credit Decision** click, **Maintenance**.
3. Under **Maintenance**, click **Parameters**.
4. Under **Parameters**, click **View Parameters**.

→ The **View Parameters** screen is displayed.

Figure 156 : View Parameters


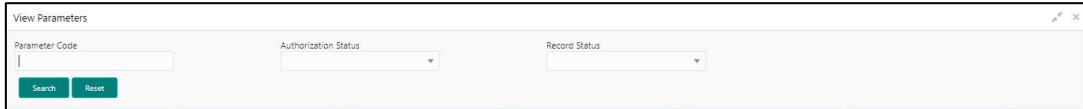
- Click .
- Specify the search criteria to fetch the required lookups.


Figure 157 : View Parameters- Search Option



- Click **Search**.

For more information on fields, refer the field description table below.

Table 124 : View Parameters - Field Description


Field	Description
The following fields are displayed, once you click  .	
Parameter Code	Displays the parameter code.
Authorization Status	Select the authorization status of the parameters. The options are: <ul style="list-style-type: none"> Authorized Unauthorized
Record Status	Select the record status of the parameters. The options are: <ul style="list-style-type: none"> Open Close


The following fields are displayed in the widget.

For more information on the fields, refer to the field description table below.

Table 125 : View Parameters - Field Description

Field	Description
Parameter Code	Displays the parameter code.
Description	Displays the description of the parameter code.
Product Processor	Displays the product processor of the parameter.

- Click this icon  to unlock, delete, authorize or view the created parameters.

9. Click  unlock to modify the following fields. The fields are displayed in the **System Parameter Maintenance** screen.

- Product Processor
- Value

Figure 158 : System Parameter Maintenance – Modify

For more information on fields, refer to the field description table below.

Table 126 : System Parameter Maintenance - Modify - Field Description

Field	Description
Basic Details	
Parameter Code	Displays the created parameter code.
Parameter Description	Displays the description for the created parameter.
Product Processor	Displays the product processor of the created parameter. You can modify the same.
Value	Displays the value of the parameter. You can modify the same.

10. Click **Save** to update the modified fields.


11. Click  to view the created lookup code. The fields are displayed in **System Parameter Maintenance** screen.

Figure 159 : System Parameter Maintenance – View

The screenshot shows a web application window titled "System Parameter Maintenance". The window contains a "Basic Details" section with the following data:

Field	Value
Parameter Code *	Maximum_Report_Age_For_New_Call...
Parameter Description *	Maximum Report Age to call Experian
Product Processor *	OFLO
Value *	4

An "Audit" button is located at the bottom left of the window.

For more information on fields, refer to the field description table below.

Table 127 : System Parameter Maintenance - View - Field Description

Field	Description
Basic Details	
Parameter Code	Displays the created parameter code.
Parameter Description	Displays the created parameter description.
Product Processor	Displays the product processor of the created parameter.
Value	Displays the value for the created parameter.

3.44 Strategy Configuration

Decision service is used for multiple purposes such as borrowing capacity, borrowing capacity plus pricing, only pricing, only decision, logical plus decision etc. System should have an ability to configure the strategy like when the decision service is being called for borrowing capacity, should the request pass through the logical check. In addition, the product processor can configure different strategies for different product types or customer types. Strategy configuration allows the product processor to configure the strategy as per its requirements for all the modes for which decision service can be called. Separate strategy can be defined for origination, servicing or collection. In addition, multiple strategy can be defined for the same module like for origination i.e. multiple strategy can be defined. This maintenance allows the product processor to configure the strategy according to its need for all the modes for which the decision service can be called for.

3.44.1 Create Strategy Configuration

Using this screen, you can configure the strategy as per the requirement.

To create Strategy Configuration:

1. From **Home screen**, click **Core Maintenance**. Under **Core Maintenance** click, **Credit Decision**.
2. Under **Credit Decision** click, **Maintenance**.
3. Under **Maintenance**, click **Strategy Configuration**.
4. Under **Strategy Configuration**, click **Create Strategy Configuration**.

→ The **Create Strategy Configuration** screen is displayed.

Figure 160 : Create Strategy Configuration

The screenshot shows the 'Create Strategy Configuration' interface. It features a 'Basic Details' section with several mandatory fields (indicated by an asterisk) for configuration: Strategy Code, Product Processor, Industry, Account Category (with radio buttons for Asset and Liability), Effective Date, Strategy Code Description, Product Processor Description, Line of Business, Module, and Expiry Date. Below this is an 'Additional Information' section containing a table with columns for 'Type' and 'Value', which currently displays 'No data to display'. At the bottom, there is a 'Modes' section with a row of checkboxes for different service modes: Borrowing Capacity, Decision & Grade, Pricing, Qualitative Score, Quantitative Score, Score, Score & Decision, and Score, Decision & Pricing.

5. On **Create Strategy Configuration** screen, specify the fields. The fields, which are marked with asterisk, are mandatory.

For more information on fields, refer to the field description table below.

Table 128 : Create Strategy Configuration - Field Description

Field	Description
Basic Details	
Strategy Code	Specify the unique strategy code.
Strategy Code Description	Specify a short description for the strategy code.
Product Processor	Specify the product processor for which the strategy is being configured.
Product Processor Description	Displays the product processor description.
Industry	<p>Select the industry type from the drop down list.</p> <p>The values are configurable based on the lookup values maintained.</p> <p>The options are:</p> <ul style="list-style-type: none"> • Banking Industry • Insurance • Trade Finance
Line of Business	<p>Select the line of business type from the drop down list. The values are configurable based on the lookup values maintained.</p> <p>The options are:</p> <ul style="list-style-type: none"> • Corporate • Retail • SMEnt
Account Category	Indicates whether the strategy created is for asset or liabilities.
Module	<p>Select the module from the drop down list. The values are configurable based on the lookup values maintained.</p> <p>The options are:</p> <ul style="list-style-type: none"> • Collection • Origination • Servicing
Effective Date	Specify the effective date.
Expiry Date	Specify the expiry date.

Field	Description
Additional Information	
+ icon	Click this icon to add new facts.
- icon	Click this icon to delete a row, which is already added.
Type	Select the fact type from the drop down list.
Value	Select the value configured for the fact type from the drop down list. The values are configurable based on the lookup values maintained.
Modes	<p>Select the modes from the list.</p> <p>The options are:</p> <ul style="list-style-type: none"> • Borrowing Capacity • Decision & Grade • Pricing • Qualitative Score • Quantitative Score • Score • Score & Decision • Score, Decision & Pricing <p>If the Module is selected as Collection, then below options are available.</p> <p>The options are:</p> <ul style="list-style-type: none"> • Decision and Grade • Qualitative Score • Quantitative Score • Score • Score and Decision
Steps	<p>Steps are defined based on the modes selected.</p> <p>For example:</p> <p>If Borrowing Capacity mode is selected, the check box for borrowing capacity is by default selected and disabled, you can select the other steps.</p>

6. Click **Save**.

The strategy configuration is successfully created and can be viewed using the **View strategy Configuration** screen.

3.44.2 View Strategy Configuration

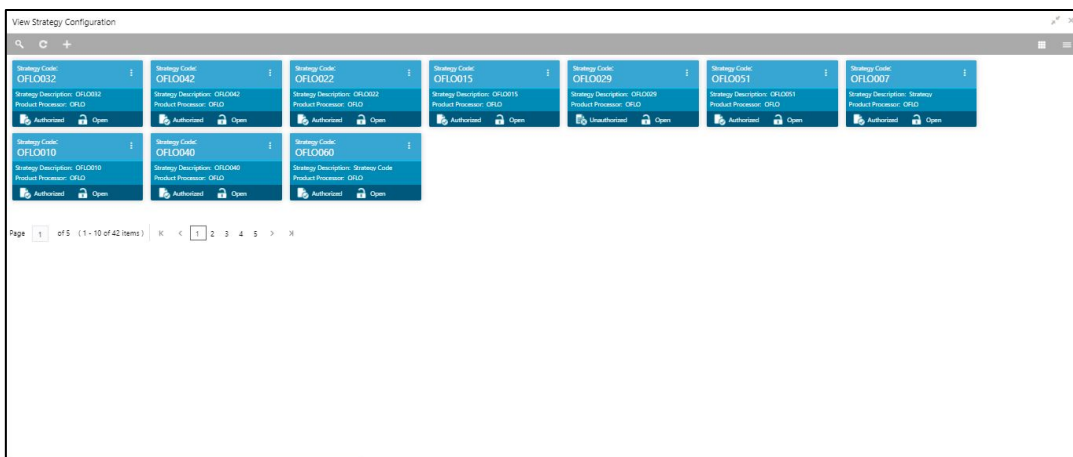
Using this screen, you can view the strategy configuration created using the **Create Strategy Configuration** screen. The status of the created criteria is displayed as **Unauthorized** and **Open**. Once the checker authorizes the parameter, the status is updated to **Authorized** and **Open**.

To view created strategy Configuration:

1. From **Home screen**, click **Core Maintenance**. Under **Core Maintenance** click, **Credit Decision**.
2. Under **Credit Decision** click, **Maintenance**.
3. Under **Maintenance**, click **Strategy Configuration**.
4. Under **Strategy Configuration**, click **View Strategy Configuration**.

→ The **View Strategy Configuration** screen is displayed.

Figure 161 : View Strategy Configuration




5. Click .
6. Specify the search criteria to fetch the required strategy configuration.


Figure 162 : View Strategy Configuration- Search Option



7. Click **Search**.

For more information on fields, refer the field description table below.

Table 129 : View Strategy Configuration – Search Option - Field Description

Field	Description
The following fields are displayed, once you click  .	
Strategy Code	Specify the strategy code.

Field	Description
Strategy Description	Specify the strategy description.
Authorization Status	Select the authorization status of the parameters. The options are: <ul style="list-style-type: none"> • Authorized • Unauthorized
Record Status	Select the record status of the parameters. The options are: <ul style="list-style-type: none"> • Open • Close

The following fields are displayed in the widget.

For more information on the fields, refer to the field description table below.

Table 130 : View Strategy Configuration - Field Description

Field	Description
Strategy Code	View the strategy code.
Strategy Description	View the strategy description.
Product Processor	View the product processor.



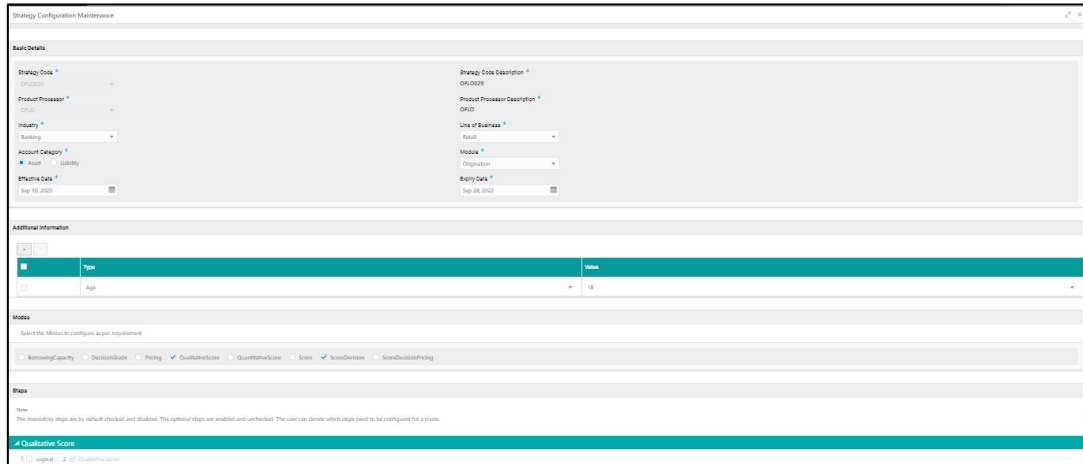

8. Click this icon  to unlock, delete, authorize or view the created strategy configuration.
9. To authorize the strategy configuration, see the Authorization process.
10. Click  unlock to modify the following fields. The fields are displayed in the **Strategy Configuration Maintenance** screen.
 - Expiry Date
 - Fact Type and Value
 - Modes
 - Steps

Figure 163 : Strategy Configuration Maintenance – Modify



For more information on fields, refer to the field description table below.

Table 131 : Strategy Configuration Maintenance - Modify - Field Description

Field	Description
<p>Once you click the  unlock option, the following fields are displayed in the Strategy Configuration Maintenance screen.</p>	
Basic Details	
Strategy Code	View the strategy code.
Strategy Code Description	View the strategy code description.
Product Processor	View the product processor for the created strategy configuration.
Product Processor Description	View the product processor description for the created strategy configuration.
Industry	View the industry for the created strategy configuration.
Line of Business	View the line of business for the created strategy configuration.
Account Category	View the account category for the created strategy configuration.
Module	View the module for the created strategy configuration.
Effective Date	View the effective date for the created strategy configuration.
Expiry Date	View the expiry date for the created strategy configuration. You can modify the same.
Additional Information	
Type	View the fact type for the created strategy configuration.
Value	View the fact value for the created strategy configuration.

Field	Description
Steps	View the steps defined for the created strategy configuration. You can modify the same.

11. Click **Save** to update the modified fields.


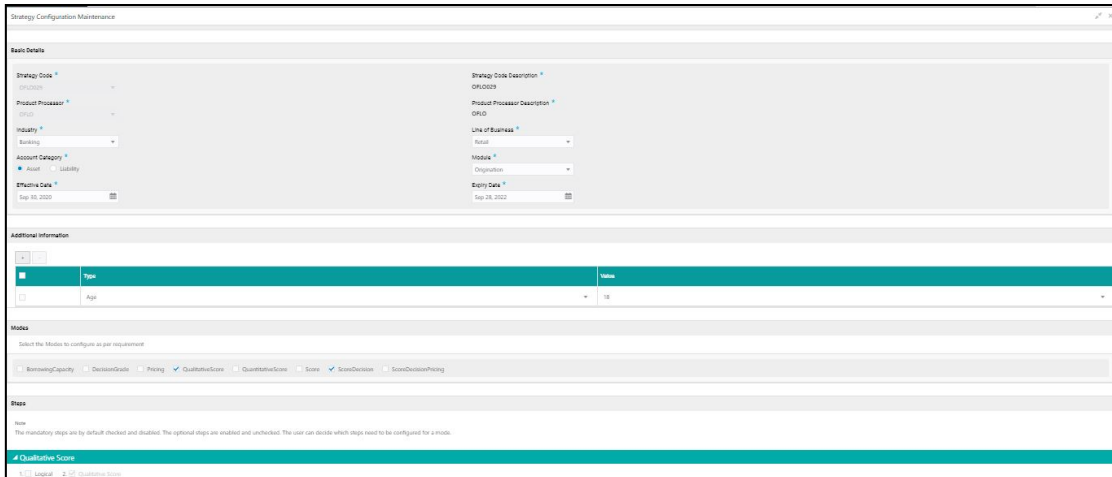

12. Click  to view the created lookup code. The fields are displayed in **Strategy Configuration Maintenance** screen.

Figure 164 : Strategy Configuration Maintenance – View



For more information on fields, refer to the field description table below.

Table 132 : Strategy Configuration Maintenance - View - Field Description

Field	Description
Once you click the  view option, the following fields are displayed in the Strategy Configuration Maintenance screen.	
Basic Details	
Strategy Code	View the strategy code.
Strategy Code Description	View the strategy code description.
Product Processor	View the product processor for the created strategy configuration.
Product Processor Description	View the product processor description for the created strategy configuration.
Industry	View the industry for the created strategy configuration.
Line of Business	View the line of business for the created strategy configuration.
Account Category	View the account category for the created strategy configuration.
Module	View the module for the created strategy configuration.

Field	Description
Effective Date	View the effective date for the created strategy configuration.
Expiry Date	View the expiry date for the created strategy configuration.
Additional Information	
Type	View the fact type for the created strategy configuration.
Value	View the fact value for the created strategy configuration.
Steps	View the steps defined for the created strategy configuration.

3.45 Logical Model

During credit decision, system evaluates a credit score that represents the creditworthiness of an individual. Banks also do an initial evaluation by using some rules to decide whether to proceed with credit decisioning process or not. A bank can perform this evaluation by maintaining a logical model. Multiple levels of rule can be setup in logical model. The system will process the next step of credit decisioning only if all the rules are satisfied. If any rule fails, then system will stop the processing and decline the request.

3.45.1 Create Logical Model

Using this screen, you can create logical model based on the various input.

You can configure the strategy as per the requirement.

To create Logical Model:

1. From **Home screen**, click **Core Maintenance**. Under **Core Maintenance** click, **Credit Decision**.
2. Under **Credit Decision** click, **Maintenance**. Under **Maintenance**, click **Logical Model**.
3. Under **Logical Model**, click **Create Logical Model**.

→ The **Create Logical Model** screen is displayed.

Figure 165 : Create Logical Model

- On **Create Logical Model screen**, specify the fields. The fields, which are marked with asterisk, are mandatory.

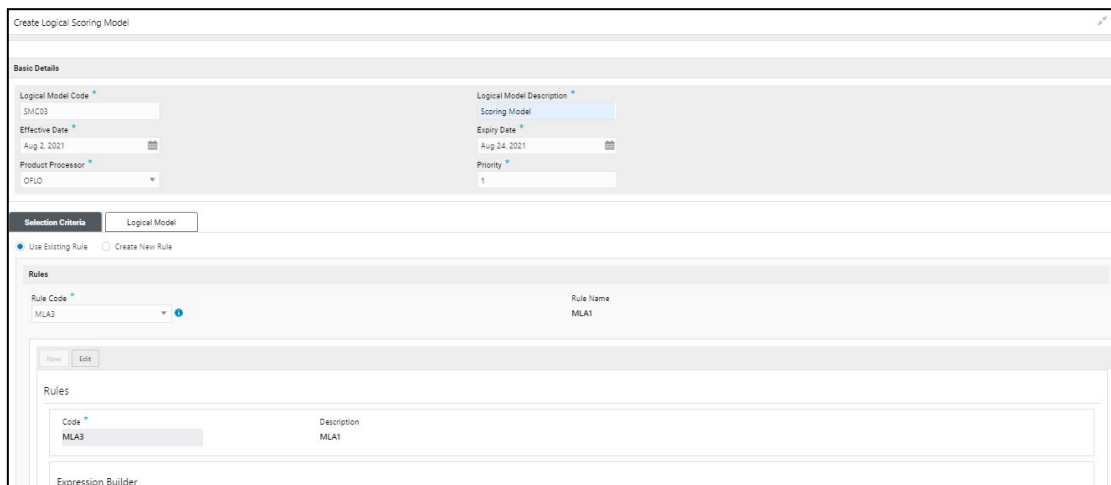
For more information on fields, refer to the field description table below.

Table 133 : Create Logical Scoring Model - Field Description

Field	Description
Basic Details	
Logical Model Code	Specify the unique logical model code.
Logical Model Description	Specify a short description for the logical model.
Effective Date	Specify the effective date.
Expiry Date	Specify the expiry date.
Product Processor	Specify the product processor for which the logical model is being defined.
Priority	Specify the priority for the logical model.

- Click the **Selection Criteria** tab to define selection criteria rules for logical model.


Figure 166 : Create Logical Scoring Model - Selection Criteria



For more information on fields, refer to the field description table below.

Table 134 : Create Logical Scoring Model – Selection Criteria - Field Description

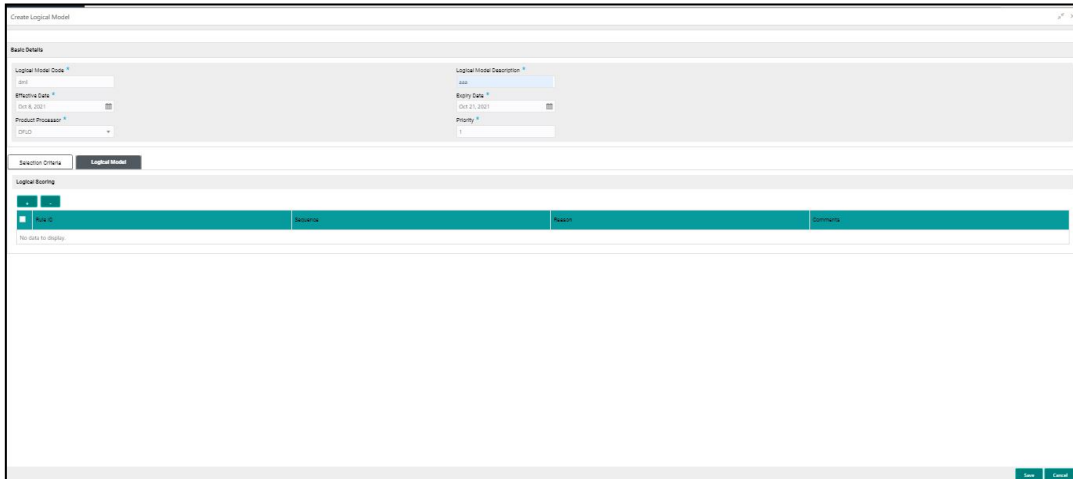
Field	Description
The following fields appear if you click the Selection Criteria Tab	
Use Existing Rule	By default, this option is enabled. Indicates if the existing rule is linked.
Rules	
Rule Code	Select the rule code from the drop down list.

Field	Description
	Click this icon to get the information about the rule.
Rule Name	View the rule name.
Create New Rule	Select this option to create new rule.
Rules	
Code	Specify the rule code.
Description	Specify the rule description.
Expression Builder	
+ icon	Click this icon to add new expression.
Fact / Rules	Select the fact or rule from the drop-down list. Once you select the fact/rules one more field opens adjacent to the output, update the same based on the selected output option.
Operator	Select the comparison operator from the drop-down list. The options are: <ul style="list-style-type: none"> • < • > • + • = • % • != • - • >= • <= • * • / • Contains • In • Like • Matches • Notmatches • Notcontains • Notin

Field	Description
Data Type	<p>Select the data type for the fact or rule. Once you select the data type one more field opens adjacent to the output, update the same based on the selected output option.</p> <p>The options are:</p> <ul style="list-style-type: none"> • Text • Number • Boolean • Date • Fact • Rules <p>The below option appears if the Data Type is selected as Boolean.</p> <ul style="list-style-type: none"> • True • False
Output	<p>Select the output from the drop-down list. Once you select the output one more field opens adjacent to the output, update the same based on the selected output option.</p> <p>The options are:</p> <ul style="list-style-type: none"> • Text • Number • Boolean • Date • Fact • Rule <p>The below option appears if the Data Type is selected as Boolean.</p> <ul style="list-style-type: none"> • True • False
Expression	View the expression updated in the expression builder.


6. Click the **Logical Model** tab to define various logical modeling rules

Figure 167 : Create Logical Model – Logical Model Tab



For more information on fields, refer to the field description table below.

Table 135 : Create Logical Model – Logical Model Tab - Field Description

Field	Description
The following fields appear if you click the Logical Model Tab	
+ icon	Click this icon to add a new row.
- icon	Click this icon to delete a row, which is already added.
Rule ID	Select the rule ID from the drop down list. All rules configured in the rule engine for the selected product processor are obtained.
	Click this icon to get the information about the rule.
Sequence	Specify the sequence of execution of rules.
Reason	Select the reason from the drop down list.
Comments	Specify the comments.

7. Click **Save**

The logical model is successfully created and can be viewed using the **View Logical Model** screen.

3.45.2 View Logical Model

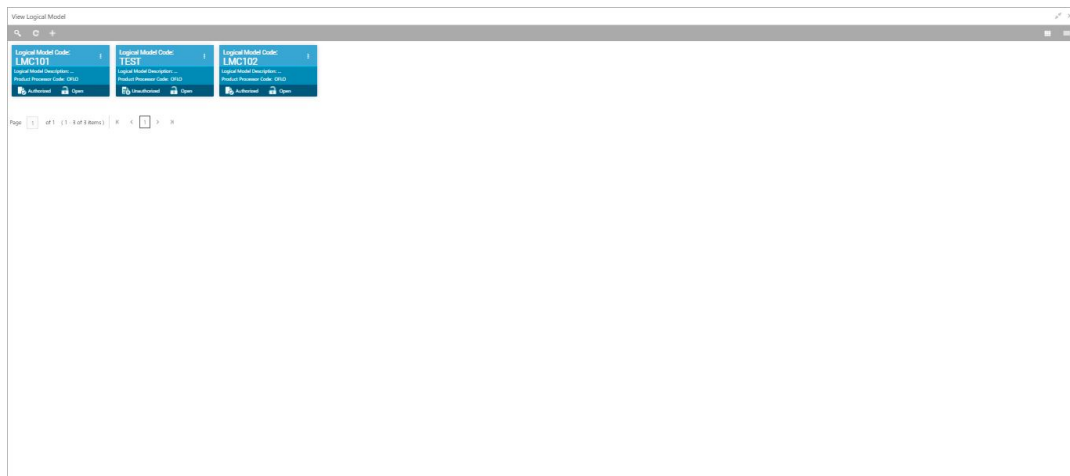
Using this screen, you can view the logical model created using the **Create Logical Model** screen. The status of the created logical model is displayed as **Unauthorized** and **Open**. Once the checker authorizes the model, the status is updated to **Authorized** and **Open**.

To View Logical Model:

1. From **Home** screen, click **Core Maintenance**, Under **Core Maintenance**, click **Credit Decision**.
2. Under **Credit Decision**, click **Maintenance**.
3. Under **Maintenance**, click **Logical Model**.
4. Under **Logical Model**, click **View Logical Model**.

→ The **View Logical Model** screen is displayed.

Figure 168 : View Logical Model




5. Click .
6. Specify the search criteria to fetch the required logical model.


Figure 169 : Logical Model- Search Option



7. Click **Search**.

For more information on fields, refer to the field description table below.

Table 136 : View Logical Model -Search Option- Field Description



Field	Description
The following fields are displayed, once you click  .	
Logical Model Code	Specify the logical model code.
Logical Model Description	Specify the description of the logical model.
Authorization Status	Select the authorization status of the logical model. The options are: <ul style="list-style-type: none"> • Authorized • Unauthorized
Record Status	Select the record status of the logical model. The options are: <ul style="list-style-type: none"> • Open • Close

8. The following fields are displayed in the widget.

For more information on fields, refer to the field description table below.

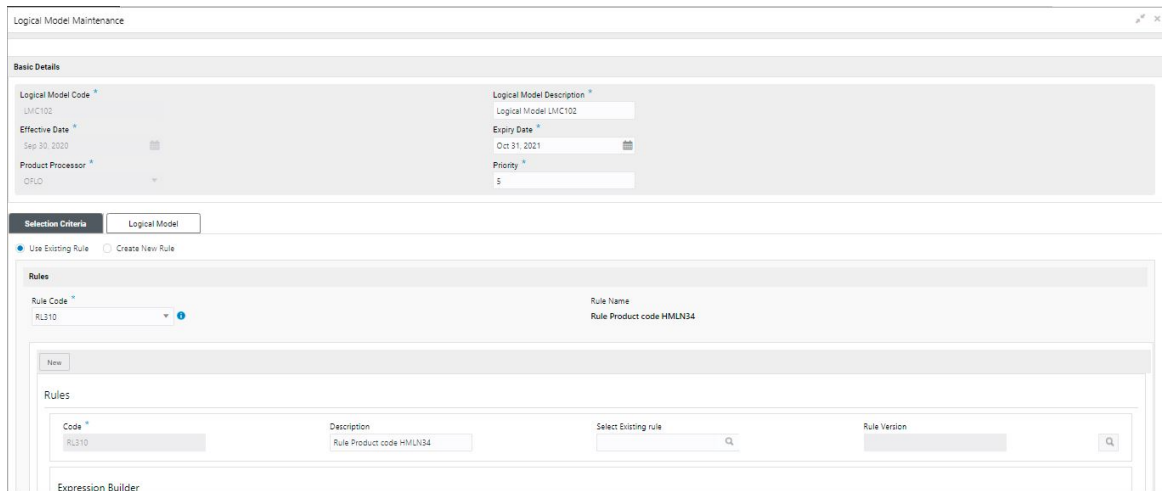
Table 137: View Logical Model – Field Description.

Field	Description
Logical Model Code	View the logical model code.
Logical Model Description	View the logical model description.
Product Processor Code	View the product processor code.

9. Click this icon  to unlock, delete, authorize or view the created logical scoring model.
10. Click  unlock to modify the following fields. The fields are displayed in the **Logical Model Maintenance** screen. The following fields are editable during unlock.
- Logical Model Description
 - Effective date before authorization
 - Expiry date
 - Add new fact or rule to the selection criteria
 - Modify the rule in logical model tab

- Modify the sequence, reason or comments in logical model tab



Figure 170 : Logical Model Maintenance - Modify



For more information on fields, refer to the field description table below.

Table 138: Logical Model Maintenance – Modify – Field Description.

Field	Description
Basic Details	
Logical Model Code	View the created logical model code.
Logical Model Description	View the description for the created logical model. You can modify the same.
Effective Date	View the effective date for the created borrowing capacity. You can modify the same, if the date is future dated.
Expiry Date	View the expiry date for the created logical model. You can modify the same.
Product Processor	View the product processor of the created logical scoring model.
Priority	View the priority of the logical model. You can modify the same.
Selection Criteria	
Use Existing Rule	By default, this option is enabled. Indicates if the existing rule is linked.
Rules	
Rule Code	View the rule code.

Field	Description
	Click this icon to get the information about the rule.
Rule Name	View the rule name.
Create New Rule	Indicates if the new rule is created.
Rules	
Code	View the rule code.
Description	View the rule description
Expression Builder	
Fact / Rules	View the fact/rules of the created logical model.
Operator	View the comparison operator of the created logical model.
Data Type	View the data type for the fact or rule of the created logical model.
Output	View the output of the created logical model.
Expression	View the expression updated in the expression builder of the created logical model.
Logical Model	
Rule ID	View the rule ID of the created logical model. You can modify the same.
	Click this icon to get the information about the rule.
Sequence	View the sequence of the created logical model. You can modify the same.
Reason	View the reason of the created logical model. You can modify the same.
Comments	View the comments of the created logical model. You can modify the same.

11. Click **Save** to update the modified fields.


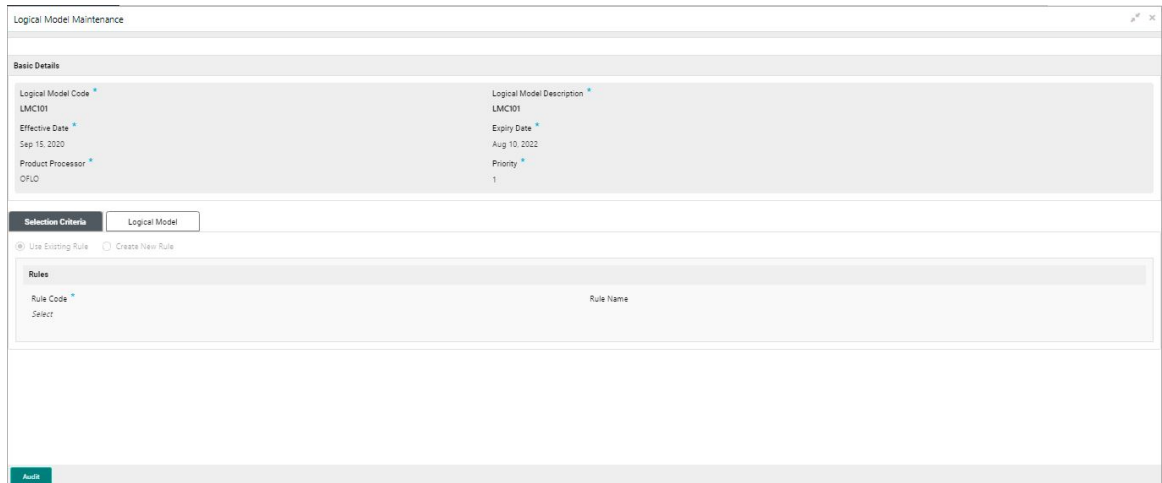
12. Click  to view the created logical model. The fields are displayed in **Logical Model Maintenance** screen.

Figure 171 : Logical Model Maintenance - View



For more information on fields, refer to the field description table below.

Table 139 : Logical Model Maintenance- View – Field Description.

Field	Description
Basic Details	
Logical Model Code	View the created logical model code.
Logical Model Description	View the created logical model description.
Effective Date	View the effective date.
Expiry Date	View the expiry date.
Product Processor	View the product processor of the created logical model.
Priority	View the priority of the logical model.
Selection Criteria	
Rules	
Use Existing Rule	View if the existing rule is linked to logical model.
Rule Code	View the rule code of the uploaded logical model.
Rule Name	View the rule name of the uploaded logical model.
Create New Rule	View if new rule is linked to the logical model.
Rules	
Rule Code	View the rule code of the uploaded logical model.
Description	View the rule description of the uploaded logical model.
Expression Builder	

Field	Description
Fact / Rules	View the fact/rules of the uploaded logical model.
Operator	View the comparison operator of the created logical model.
Data Type	View the data type for the fact or rule of the created logical model.
Output	View the output of the created logical model.
Expression	View the expression updated in the expression builder of the created logical model.
Logical Model	
Rule ID	View the rule ID of the created logical model.
Sequence	View the sequence of the created logical model.
Reason	View the reason of the created logical model.
Comments	View the comments of the created logical model.

3.46 Borrowing Capacity

Borrowing capacity describes the total amount the applicant is eligible to borrow. Maximum loan amount are used for loans, credit cards, and line of credit accounts. The maximum credit amount depends on a number of factors including the borrower's credit worthiness i.e. financial profile and debt to income, loan term, loan purpose, whether the loan is supported by a collateral etc.

Using this screen, we can link a rule for calculating borrowing capacity. We can calculate the maximum lendable amount based on the various criteria of the lender such as debt to income ratio, credit score, credit history etc.

A sample rule to calculate borrowing capacity is given below:

Scenario: Based on Income and FICO score

Rule 1:

```
IF MIN(FICO_SCORE) >= 500 AND MIN(EMPLOYMENT_PERIOD) < 1 YEAR
THEN MULTIPLIER = 5
ELSEIF MIN(FICO_SCORE) < 500 AND MIN(EMPLOYMENT_PERIOD) > 1 YEAR
THEN MULTIPLIER = 4
```

Rule2: Max Lendable Amount

```
MIN(Income) * Rule1
```


3.46.1 Create Borrowing Capacity

Create borrowing capacity screen facilitates to define the borrowing capacity based on the various input.

To Create a Borrowing Capacity:

1. From **Home screen**, click **Core Maintenance**, Under **Core Maintenance**, click **Credit Decision**.
2. Under **Credit Decision**, click **Maintenance**.
3. Under **Maintenance**, click **Borrowing Capacity**.
4. Under **Borrowing Capacity**, click **Create Borrowing Capacity**.

→ The **Create Borrowing Capacity** screen is displayed.

Figure 172 : Create Borrowing Capacity

5. On **Create Borrowing Capacity** screen, specify the fields. The fields, which are marked with asterisk, are mandatory.

For more information on fields, refer to the field description table below.

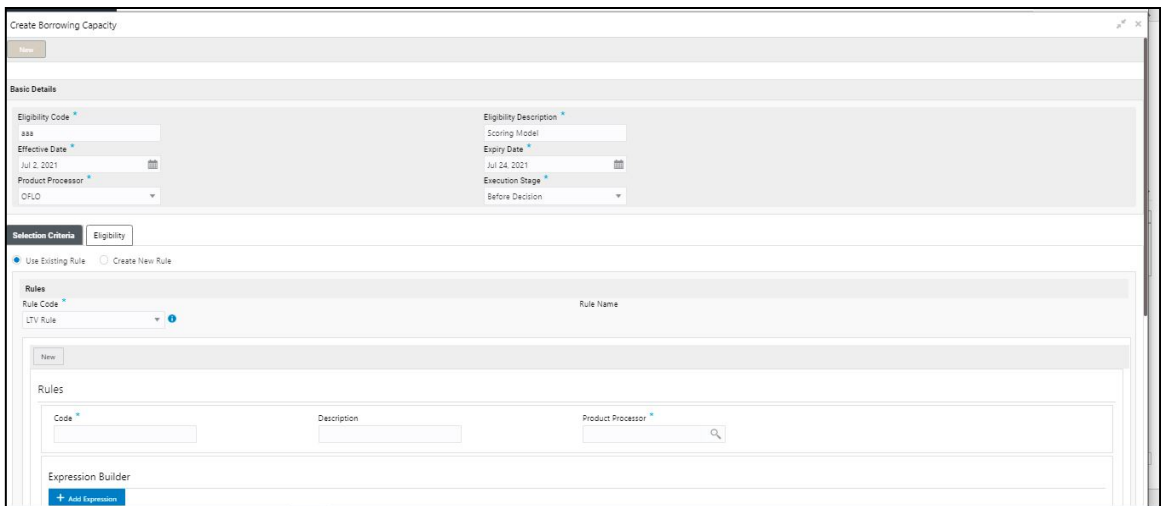
Table 140 : Create Borrowing Capacity - Field Description

Field	Description
Basic Details	
Eligibility Code	Specify the unique eligibility code.
Eligibility Description	Specify a short description for the eligibility.
Effective Date	Specify the effective date.
Expiry Date	Specify the expiry date.
Product Processor	Specify the product processor for which the borrowing capacity is being defined.

Field	Description
Execution Stage	<p>Select the required option for execution stage.</p> <p>The options are:</p> <ul style="list-style-type: none"> • Before Decision: If this option is selected, amount is calculated before scoring model resolution. Loan amount is replaced with the minimum of requested loan amount and maximum lendable amount for scoring and pricing. • After Decision: If this option is selected, Amount is calculated after decision and before pricing. Loan amount is replaced with the minimum of requested loan amount and maximum lendable amount for pricing.


6. Click the **Selection Criteria** tab to define selection criteria rules.

Figure 173 : Create Borrowing Capacity - Selection Criteria



For more information on fields, refer to the field description table below.

Table 141 : Create Borrowing Capacity – Selection Criteria - Field Description

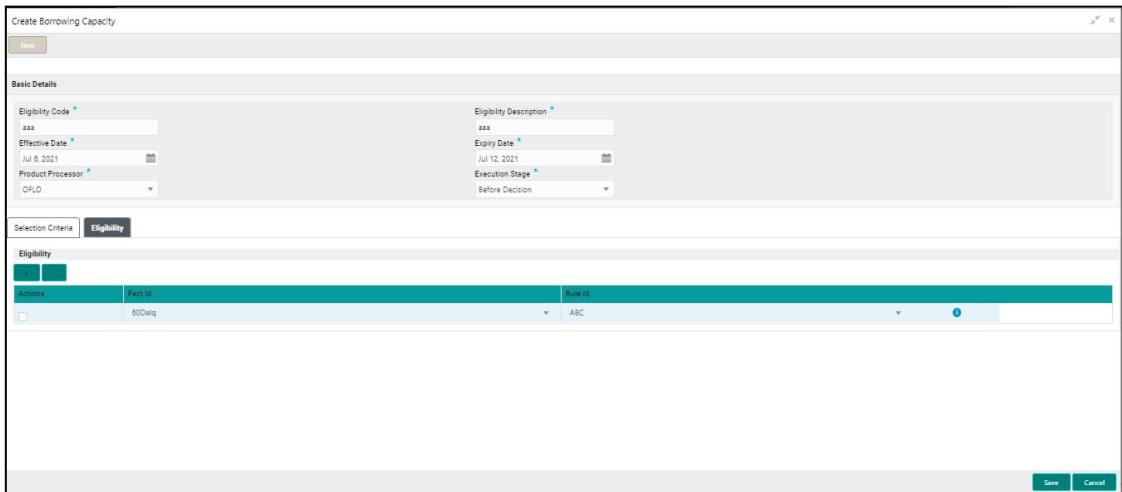
Field	Description
The following fields appear if you click the Selection Criteria Tab	
Use Existing Rule	By default, this option is enabled. Indicates if the existing rule is linked.
Rules	
Rule Code	Select the rule code from the drop down list.
	Click this icon to get the information about the rule.
Rule Name	View the rule name.
Create New Rule	Select this option to create new rule.
Rules	

Field	Description
Code	Specify the rule code.
Description	Specify the rule description.
Expression Builder	
+ icon	Click this icon to add new expression.
Fact / Rules	Select the fact or rule from the drop-down list. Once you select the fact/rules one more field opens adjacent to the output, update the same based on the selected output option.
Operator	Select the comparison operator from the drop-down list. The options are: <ul style="list-style-type: none"> • < • > • + • = • % • != • - • >= • <= • * • / • Contains • In • Like • Matches • Notmatches • Notcontains • Notin
Data Type	Select the data type for the fact or rule. Once you select the data type one more field opens adjacent to the output, update the same based on the selected output option. The options are: <ul style="list-style-type: none"> • Text • Number • Boolean • Date • Fact • Rules <p>The below option appears if the Data Type is selected as Boolean.</p> <ul style="list-style-type: none"> • True • False

Field	Description
Output	<p>Select the output from the drop-down list. Once you select the output one more field opens adjacent to the output, update the same based on the selected output option.</p> <p>The options are:</p> <ul style="list-style-type: none"> • Text • Number • Boolean • Date • Fact • Rule <p>The below option appears if the Data Type is selected as Boolean.</p> <ul style="list-style-type: none"> • True • False
Expression	View the expression updated in the expression builder.

7. Click the **Eligibility** tab to define eligibility.


Figure 174 : Create Borrowing Capacity – Eligibility Tab



For more information on fields, refer to the field description table below.

Table 142 : Create Borrowing Capacity – Eligibility Tab - Field Description

Field	Description
The following fields appear if you click the Eligibility Tab	
+ icon	Click this icon to add a new row.
- icon	Click this icon to delete a row, which is already added.
Actions	Select this checkbox corresponding to the row to be deleted.
Fact ID	Select the fact ID from the drop down list.
Rule ID	Select the rule ID from the drop down list.

Field	Description
	Click this icon to get the information about the rule.

- Click **Save**

The borrowing capacity is successfully created and can be viewed using the **View Borrowing Capacity** screen.

3.46.2 View Borrowing Capacity

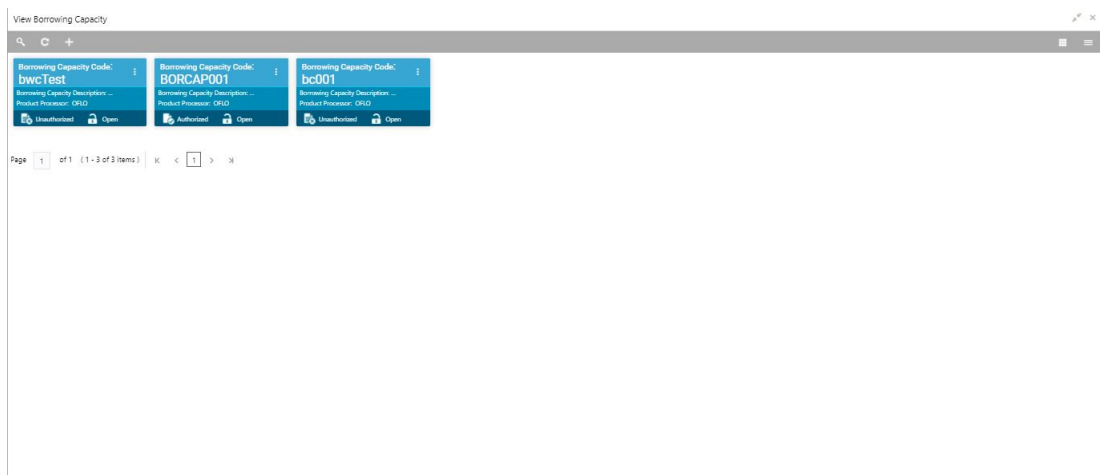
Using this screen, you can view the borrowing capacity created using the **Create Borrowing Capacity** screen. The status of the created capacity is displayed as **Unauthorized** and **Open**. Once the checker authorizes the capacity, the status is updated to **Authorized** and **Open**.

To view the created Borrowing Capacity:

- From **Home screen**, click **Core Maintenance**, Under **Core Maintenance**, click **Credit Decision**.
- Under **Credit Decision**, click **Maintenance**.
- Under **Maintenance**, click **Borrowing Capacity**.
- Under **Borrowing Capacity**, click **View Borrowing Capacity**.

→ The **View Borrowing Capacity** screen is displayed.

Figure 175 : View Borrowing Capacity



- Click .


- Specify the search criteria to fetch the required borrowing capacity.

Figure 176 : View Borrowing Capacity- Search Option

7. Click **Search**.

For more information on fields, refer to the field description table below.

Table 143 : View Borrowing Capacity -Search Option- Field Description

Field	Description
The following fields are displayed, once you click  .	
Borrowing Capacity Code	Specify the borrowing capacity code.
Borrowing Capacity Description	Specify the description of the borrowing capacity.
Authorization Status	Select the authorization status of the logical model. The options are: <ul style="list-style-type: none"> • Authorized • Unauthorized
Record Status	Select the record status of the logical model. The options are: <ul style="list-style-type: none"> • Open • Close

The following fields are displayed in the widget.

For more information on fields, refer to the field description table below.

Table 144: View Borrowing Capacity – Field Description.

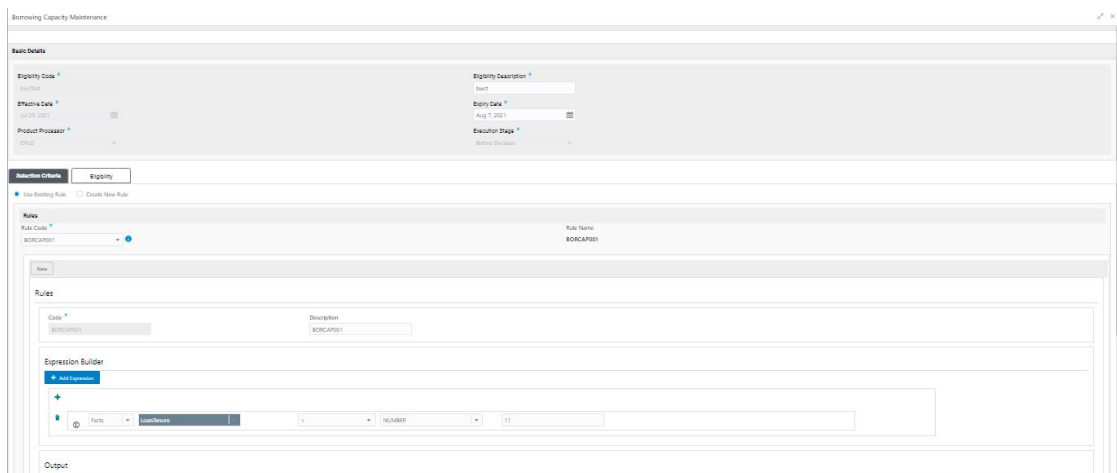
Field	Description
Borrowing Capacity Code	View the borrowing capacity code.
Borrowing Capacity Model Description	View the borrowing capacity description.
Product Processor	View the product processor.

8. Click this icon  to unlock, delete, authorize or view the created borrowing capacity.

9. Click **6** unlock to modify the following fields. The fields are displayed in the **Borrowing Capacity Maintenance** screen. The following fields are editable during unlock.

- Eligibility Description
- Effective date before authorization
- Expiry date
- Add new fact or rule to the selection criteria
- Fact or Rule in eligibility tab



Figure 177 : Borrowing Capacity Maintenance - Modify



For more information on fields, refer to the field description table below.

Table 145: Borrowing Capacity Maintenance – Modify – Field Description.

Field	Description
Basic Details	
Eligibility Code	View the eligibility code for the created borrowing capacity.
Eligibility Description	View the description for the created borrowing capacity. You can modify the same.
Effective Date	View the effective date for the created borrowing capacity. You can modify the same, if the date is future dated.
Expiry Date	View the expiry date for the created borrowing capacity. You can modify the same.
Product Processor	Displays the product processor of the created borrowing capacity.
Execution Stage	View the execution stage for the created borrowing capacity.
Selection Criteria	

Field	Description
Use Existing Rule	By default, this option is enabled. Indicates if the existing rule is linked.
Rules	
Rule Code	Displays the rule code.
	Click this icon to get the information about the rule.
Rule Name	Displays the rule name.
Create New Rule	Indicates if the new rule is created.
Rules	
Code	Displays the rule code.
Description	Displays the rule description
Expression Builder	
Fact / Rules	View the fact/rules of the created logical model.
Operator	View the comparison operator of the created logical model.
Data Type	View the data type for the fact or rule of the created logical model.
Output	View the output of the created logical model.
Expression	View the expression updated in the expression builder of the crated logical model.
Eligibility	
Fact ID	View the fact ID of the created borrowing capacity. You can modify the same.
Rule ID	View the rule ID of the created borrowing capacity. You can modify the same.
	Click this icon to get the information about the rule.

10. Click save to update the modified fields.



11. Click  to view the created logical model. The fields are displayed in **Borrowing Capacity Maintenance** screen.

Figure 178 : Borrowing Capacity Maintenance - View

For more information on fields, refer to the field description table below.

Table 146 : Borrowing Capacity Maintenance- View – Field Description.

Field	Description
Basic Details	
Eligibility Code	View the eligibility code for the created borrowing capacity.
Eligibility Description	View the description for the created borrowing capacity.
Effective Date	View the effective date for the created borrowing capacity.
Expiry Date	View the expiry date for the created borrowing capacity.
Product Processor	View the product processor for the created borrowing capacity.
Execution Stage	View the execution stage for the created borrowing capacity.
Selection Criteria	
Rules	
Use Existing Rule	View if the existing rule is linked to borrowing capacity.
Rule Code	View the rule code of the uploaded borrowing capacity.
Rule Name	View the rule name of the uploaded borrowing capacity.
Create New Rule	View if new rule is linked to the borrowing capacity.
Rules	

Field	Description
Rule Code	View the rule code of the uploaded borrowing capacity.
Description	View the rule description of the uploaded borrowing capacity.
Expression Builder	
Fact / Rules	View the fact/rules of the uploaded borrowing capacity.
Operator	View the comparison operator of the created borrowing capacity.
Data Type	View the data type for the fact or rule of the created borrowing capacity.
Output	View the output of the created borrowing capacity.
Expression	View the expression updated in the expression builder of the crated borrowing capacity.
Eligibility	
Fact ID	View the fact ID of the created borrowing capacity.
Rule ID	View the rule ID of the created borrowing capacity.
	Click this icon to get the information about the rule.

3.47 Questionnaire

Credit analysis includes analysis of more information and data. Considering that, some of them have quantitative character and others qualitative, credit analysis are viewed from two aspects such as:

Quantitative analysis involves, an assessment of the financial position based on the customer's income and monthly expenses. It may also include a cash flow analysis of the customer's accounts and credit history.

While qualitative assessment, among others takes into account marital status, education or employment form.

Banks usually grant loan based on a credit scoring model that combines quantitative and qualitative analysis.

3.47.1 Create Questionnaire

Using this screen, you can define qualitative questionnaire based on the various parameters. This questionnaire can be further linked to define qualitative scoring model.

To create a questionnaire:

1. From **Home screen**, click **Core Maintenance**. Under **Core Maintenance** click, **Credit Decision**.
2. Under **Credit Decision** click, **Maintenance**.
3. Under **Maintenance**, click **Questionnaire**.
4. Under **Questionnaire**, click **Create Questionnaire**.

→ The **Create Questionnaire** screen is displayed.






Figure 179 : Create Questionnaire

5. On **Create Questionnaire screen**, specify the fields. The fields, which are marked with asterisk, are mandatory.

For more information on fields, refer to the field description table below.

Table 147 : Create Questionnaire - Field Description

Field	Description
Basic Details	
Questionnaire Code	Specify the unique questionnaire code.
Questionnaire Description	Specify a short description for the questionnaire.
Product Processor	Specify the product processor for which the questionnaire is being created.
Category	Specify the category for the questionnaire.
Create	Click Create to configure the questions.

Field	Description
Question Code	Specify the unique question code.
Question Description	Specify the description for the question.
Select-Type	Select the type of response option from the drop-down list. The option are: <ul style="list-style-type: none"> Select-Single-Choice
Short Name	Specify the short name of the question. This will be displayed in the Execution Summary.
Answer Code	View the answer code.
Answer Option	Specify all the expected response for the question configured.
Add	Click add to add the expected response to the question.
Update	Click Update to edit the response.
Remove	Click remove to remove the response.
Required	By default, this option is enabled. Indicates whether the question is mandatory or optional.
Done	Click Done to save the data.
Preview	Click Preview to view the questions configured for the questionnaire along with the response choice.
	Click this icon to view the responses configured for the questionnaire.
	Click this icon to move the position of the questions.
	Click this icon to expand, copy or remove question.
 Copy	Click this icon to copy the question.
 Remove Question	Click this icon to remove the question.
Add Question	By Clicking Add Question , you can add another question.

6. Click **Save**.

The Questionnaire is successfully created and can be viewed using **View Questionnaire** screen.

3.47.2 View Questionnaire

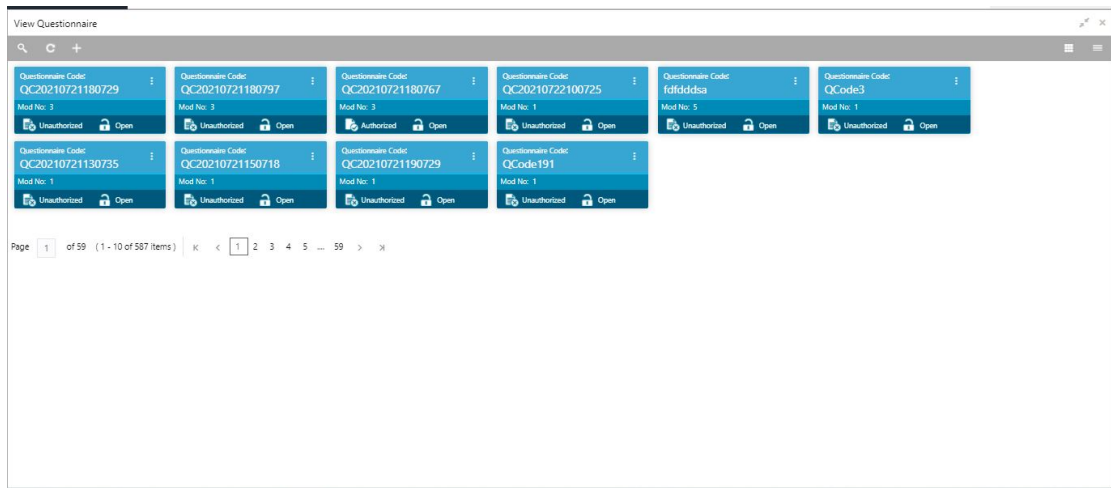
Using this screen, you can view the questionnaire created using the **Create Questionnaire** screen. The status of the created questionnaire is displayed as **Unauthorized** and **Open**. Once the checker authorizes the questionnaire, the status is updated to **Authorized** and **Open**.

To view created questionnaire:

1. From **Home screen**, click **Core Maintenance**. Under **Core Maintenance**, click **Credit Decision**.
2. Under **Credit Decision**, click **Maintenance**.
3. Under **Maintenance**, click **Questionnaire**.
4. Under **Questionnaire**, click **View Questionnaire**.

→ The View Questionnaire screen is displayed.

Figure 180 : View Questionnaire




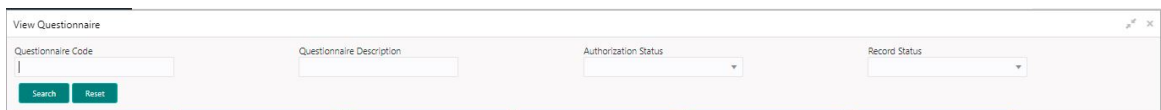
5. Click .
6. Specify the search criteria to fetch the required questionnaire.


Figure 181 : View Questionnaire - Search Option



7. Click **Search**.

For more information on fields, refer to the field description table below.

Table 148 : View Questionnaire -Search Option- Field Description


Field	Description
The following fields are displayed, once you click  .	
Questionnaire Code	Specify the questionnaire code.
Questionnaire Description	Specify the questionnaire description.
Authorization Status	Select the authorization status of the logical model. The options are: <ul style="list-style-type: none"> • Authorized • Unauthorized
Record Status	Select the record status of the logical model. The options are: <ul style="list-style-type: none"> • Open • Close

The following fields are displayed in the widget.

For more information on fields, refer to the field description table below.

Table 149: View Borrowing Capacity – Field Description.

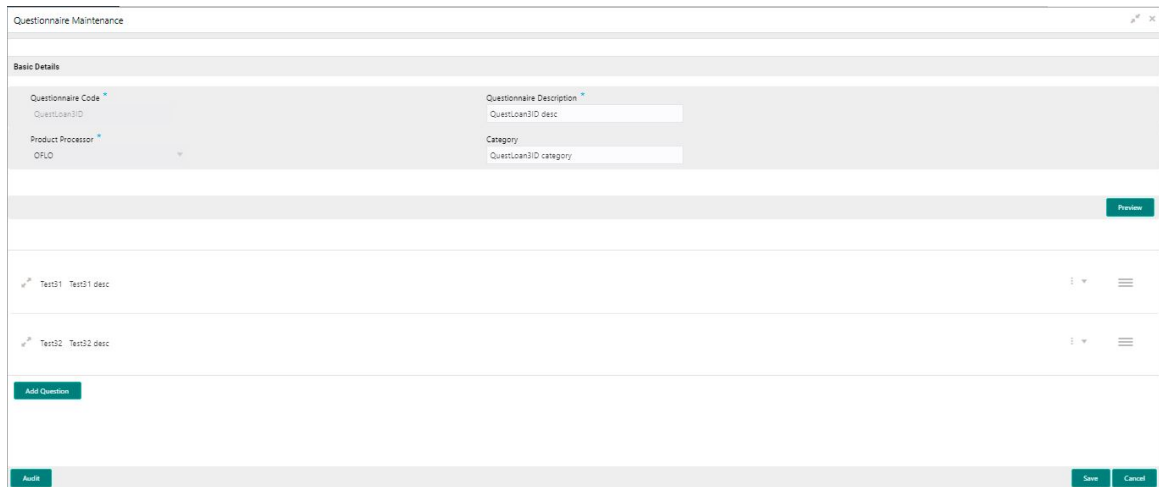
Field	Description
Questionnaire Code	Displays the questionnaire code.
Questionnaire Description	Displays the questionnaire description.
Product Processor Code	Displays the product processor code for which the questionnaire is created.

8. Click this icon  to unlock, delete, authorize or view the created questionnaire.
9. To authorise the questionnaire, see the Authorization process.

10. Click **6** unlock to modify the following fields. The fields are displayed in the **Questionnaire Maintenance** screen. The following fields are editable during unlock.

- Questionnaire Description
- Category
- Add Question
- Remove Question
- Required (Enable/Disable)
- User can add new, update existing, or remove existing response
- Copy the existing question





Figure 182 : Questionnaire Maintenance - Modify



For more information on fields, refer to the field description table below.

Table 150: Questionnaire Maintenance – Modify – Field Description.

Field	Description
Once you click the 6 option, the following fields are displayed in the Questionnaire Maintenance screen.	
Basic Details	
Questionnaire Code	View the questionnaire code.
Questionnaire Description	View the questionnaire description. You can modify the description.
Product Processor	View the product processor for the created questionnaire.
Category	View the category of the created questionnaire. You can modify the category.

Field	Description
Preview	Click Preview to view the questions configured for the questionnaire along with the response choice.
	Click this icon to expand, copy or remove question.
	Click this icon to move the position of the questions.
	Click this icon to see the question details.
The following fields are displayed once you click this  icon.	
Question Code	View the question code for the created questionnaire.
Question Description	View the question code for the created questionnaire. You can modify the same.
Select-Type	View the type of questionnaire.
Short Name	View the short name of the created questionnaire. You can modify the same
Answer Code	View the answer code.
Answer Option	View all the expected response for the question configured. You can modify, delete the same.
Required	View if the question is mandatory or optional. You can modify the same.

11. Click save to update the modified fields.


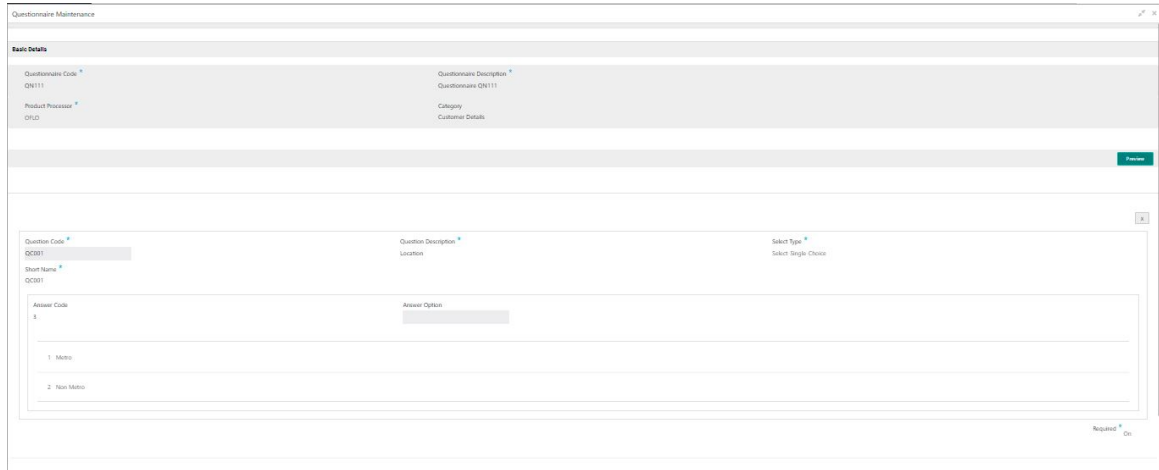
12. Click  to view the created logical model. The fields are displayed in **Questionnaire Maintenance** screen.


Figure 183 : Questionnaire Maintenance - View



For more information on fields, refer to the field description table below.

Table 151 : Questionnaire Maintenance- View – Field Description.

Field	Description
Basic Details	
Eligibility Code	View the eligibility code for the created borrowing capacity.
Eligibility Description	View the description for the created borrowing capacity.
Effective Date	View the effective date for the created borrowing capacity.
Expiry Date	View the expiry date for the created borrowing capacity.
Product Processor	View the product processor for the created borrowing capacity.
Execution Stage	View the execution stage for the created borrowing capacity.
Selection Criteria	
Rules	
Use Existing Rule	View if the existing rule is linked to borrowing capacity.
Rule Code	View the rule code of the uploaded borrowing capacity.
Rule Name	View the rule name of the uploaded borrowing capacity.
Create New Rule	View if new rule is linked to the borrowing capacity.
Rules	
Rule Code	View the rule code of the uploaded borrowing capacity.
Description	View the rule description of the uploaded borrowing capacity.
Expression Builder	
Fact / Rules	View the fact/rules of the uploaded borrowing capacity.

Field	Description
Operator	View the comparison operator of the created borrowing capacity.
Data Type	View the data type for the fact or rule of the created borrowing capacity.
Output	View the output of the created borrowing capacity.
Expression	View the expression updated in the expression builder of the created borrowing capacity.
Eligibility	
Fact ID	View the fact ID of the created borrowing capacity.
Rule ID	View the rule ID of the created borrowing capacity.
	Click this icon to get the information about the rule.

3.48 Qualitative Scoring Model

Financial institution use different models for different product or use case. The qualitative scoring model used for home loan would be different then the personal loan. Banks usually grant loan based on a credit scoring model that combines quantitative and qualitative analysis.

3.48.1 Create Qualitative Scoring Model

Using this screen, you can define qualitative scoring model based on the various scoring parameters.

To create a qualitative scoring Model:

1. From **Home screen**, click **Core Maintenance**. Under **Core Maintenance** click, **Credit Decision**.
2. Under **Credit Decision** click, **Maintenance**.
3. Under **Maintenance**, click **Qualitative Scoring Model**.
4. Under **Qualitative Scoring model**, click **Create Qualitative Scoring Model**
→ The **Create Qualitative Scoring Model** screen is displayed.

Figure 184 : Create Qualitative Scoring Model

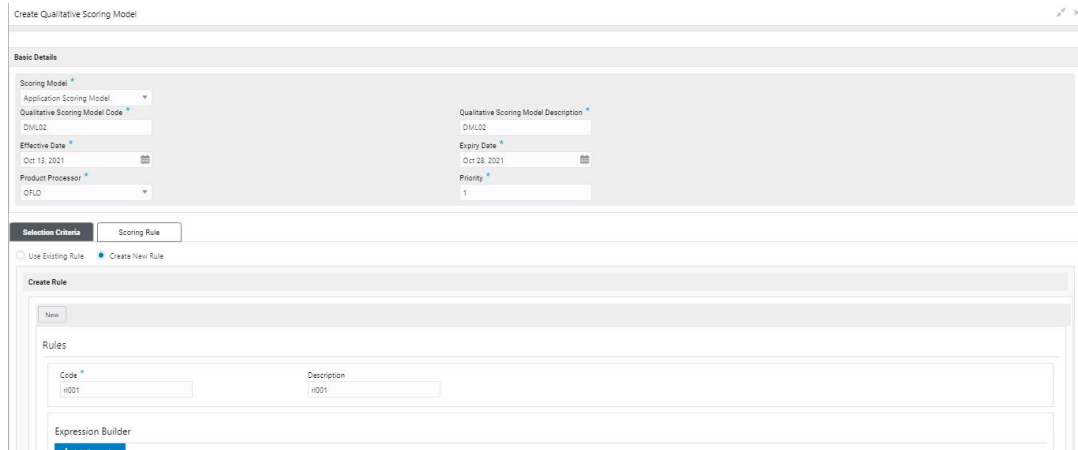
5. On **Create Qualitative Scoring Model** screen, specify the fields. The fields, which are marked with asterisk, are mandatory. For more information on fields, refer to the field description table below.

Table 152 : Create Qualitative Scoring Model - Field Description

Field	Description
Basic Details	
Scoring Model	Select the scoring model from the drop-down list. The options are: <ul style="list-style-type: none"> • Application Scoring Model • Applicant Scoring Model
Scoring Model code	Specify the unique scoring model code.
Scoring Model Description	Specify a short description for the scoring model.
Effective Date	Specify the effective date.
Expiry Date	Specify the expiry date.
Product Processor	Specify the product processor for which the model is being created.
Priority	Specify the priority of the model.


6. Click the **Selection Criteria** tab to define qualitative scoring model.

Figure 185 : Create Qualitative Scoring Model – Selection Criteria Tab



A brief description of the fields is given below:

Table 153 : Create Qualitative Scoring Model – Selection Criteria Tab Field Description

Field	Description
The following fields appear if you click Selection Criteria Tab.	
Use Existing Rule	By default, this option is enabled. Indicates if the existing rule is linked.
Rules	
Rule Code	Select the rule code from the drop down list.
	Click this icon to get the information about the rule.
Rule Name	View the rule name of the rule code.
Create New Rule	Select this option to create new rule.
Rules	
Code	Specify the rule code.
Description	Specify the rule description.
Expression Builder	
+ icon	Click this icon to add new expression.
Fact / Rules	Select the fact or rule from the drop-down list. Once you select the fact/rules one more field opens adjacent to the output, update the same based on the selected output option.

Field	Description
Operator	<p>Select the comparison operator from the drop-down list.</p> <p>The options are:</p> <ul style="list-style-type: none"> • < • > • + • = • % • != • - • >= • <= • * • / • Contains • In • Like • Matches • Notmatches • Notcontains • Notin
Data Type	<p>Select the data type for the fact or rule. Once you select the data type one more field opens adjacent to the output, update the same based on the selected output option.</p> <p>The options are:</p> <ul style="list-style-type: none"> • Text • Number • Boolean • Date • Fact • Rules <p>The below option appears if the Data Type is selected as Boolean.</p> <ul style="list-style-type: none"> • True • False

Field	Description
Output	<p>Select the output from the drop-down list. Once you select the output one more field opens adjacent to the output, update the same based on the selected output option.</p> <p>The options are:</p> <ul style="list-style-type: none"> • Text • Number • Boolean • Date • Fact • Rule <p>The below option appears if the Data Type is selected as Boolean.</p> <ul style="list-style-type: none"> • True • False
Expression	View the expression updated in the expression builder.

7. Click the **Scoring Rule** tab to define the rules. This tab is enabled if **Application Scoring Model** is selected.

Figure 186 : Create Qualitative Scoring Model- Scoring Rule Tab

The screenshot shows a web application window titled "Create Qualitative Scoring Model". It has two tabs: "Selection Criteria" and "Scoring Rule", with "Scoring Rule" being the active tab. The "Basic Details" section contains the following fields:

- Scoring Model: Application Scoring Model
- Qualitative Scoring Model Code: DM102
- Effective Date: Oct 13, 2021
- Product Processor: OFLO
- Qualitative Scoring Model Description: DM102
- Expiry Date: Oct 28, 2021
- Priority: 1


The "Score" section contains:

- Rule Code: BRCAPI0
- Rule Name: Borrowing Capacity

At the bottom right, there are "Save" and "Cancel" buttons.

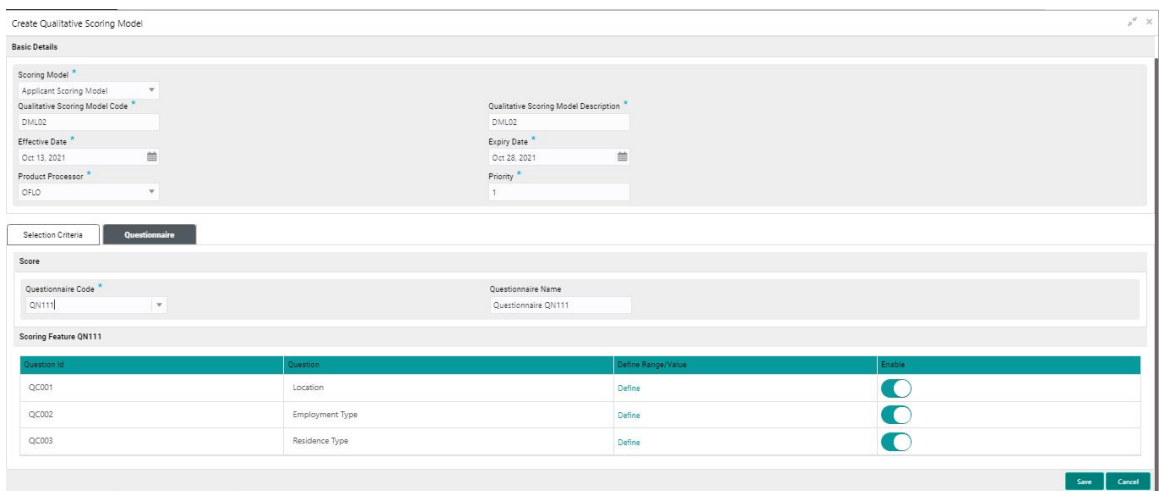
For more information on fields, refer to the field description table below.

Table 154 : Create Qualitative Scoring Model- Scoring Rule Tab Field Description

Field	Description
The following fields appear if you click Scoring Rule Tab.	
Score	
Rule Code	Select the rule code from the drop down list.
	Click this icon to get the information about the rule.
Rule Name	View the rule name of the rule code.

- Click the **Questionnaire** tab to define the scoring model based on the various questionnaires. This tab is enabled if **Applicant Scoring Model** is selected.

Figure 187 : Create Qualitative Scoring Model- Questionnaire Tab



For more information on fields, refer to the field description table below.

Table 155 : Create Qualitative Scoring Model – Questionnaire Tab - Field Description

Field	Description
The following fields appear if you click Questionnaire Tab.	
Score	
Questionnaire Code	Select the questionnaire code from the drop-down list. It will list down all the questionnaire created as a part of create questionnaire.
Questionnaire Name	View the questionnaire name of the selected questionnaire code.
Question ID	View the question ID in the questionnaire.
Question	View the question description linked to the question ID.

Field	Description
Define Range/Value	Click the Define link to define the score for the expected response.
Enable	By default, this option is enabled. Indicates if the question ID is enabled or not.

9. Click the define link to define a range or absolute values for questions.

Figure 188 : Create Qualitative Scoring Model - Define Link

The screenshot shows the 'Create Qualitative Scoring Model' window. At the top, there are fields for 'Effective Date' (Aug 19, 2021), 'Expiry Date' (Aug 31, 2021), 'Product Processor' (CFLD), and 'Priority' (1). Below this, the 'Questionnaire' tab is selected. It displays a table with columns: Question Id, Question, Define Range/Value, and Enable. Two rows are visible, each with a 'Define' link and an enabled toggle. Below the table is the 'Range/Value Definition' section for Q1#1628506826, which includes a table with columns: Value, Score, and Category. The table shows two entries: 'description01' with a score of 10 and category 'Strong', and 'description02' with a score of 50 and category 'Medium'. 'Done', 'Save', and 'Cancel' buttons are at the bottom right.

For more information on fields, refer to the field description table below.

Table 156: Create Qualitative Scoring Model- Define Link – Numeric Feature- Field Description

Field	Description
The following fields appear if you click Define link.	
Range/Value Definition	
Value	Displays the options available for a questionnaire.
Score	Specify the score to be assigned to each value.
Category	Specify the category for each range or value from the drop-down list. The values are configurable based on the lookup values maintained. The options are: <ul style="list-style-type: none"> • Strong • Medium • Weak

10. Click **Done**, to save the data and close the range panel.

11. Click **Save**.

The qualitative scoring model is successfully created and can be viewed using the **View Qualitative Scoring Model** screen.

3.48.2 View Qualitative Scoring Model

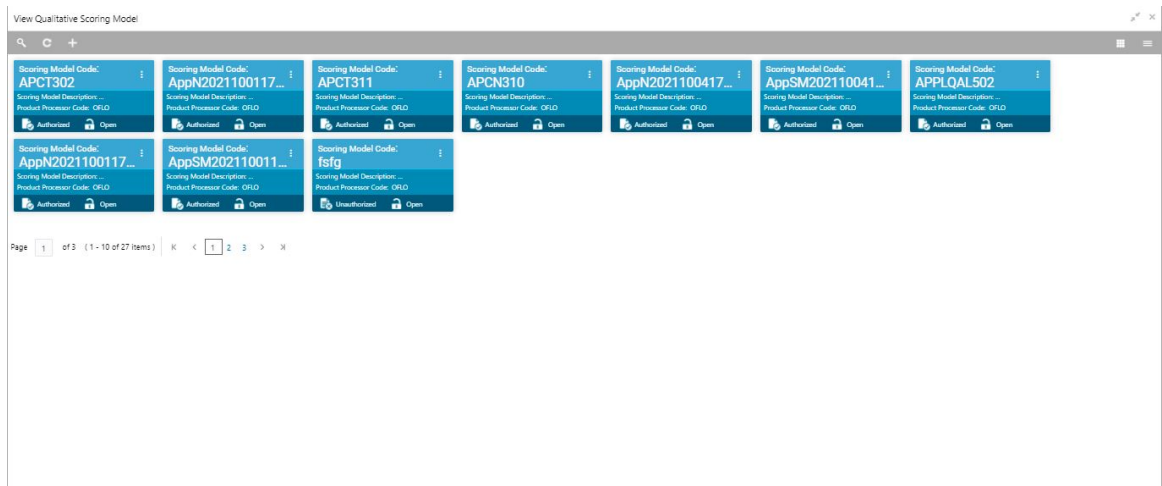
Using this screen, you can view the qualitative scoring model created using the **Create Qualitative Scoring Model** screen. The status of the created feature is displayed as **Unauthorized** and **Open**. Once the checker authorizes the model, the status is updated to **Authorized** and **Open**.

To view created qualitative scoring Model:

1. From **Home screen**, click **Core Maintenance**. Under **Core Maintenance**, click **Credit Decision**.
2. Under **Credit Decision**, click **Maintenance**.
3. Under **Maintenance**, click **Qualitative Scoring Model**.
4. Under **Qualitative Scoring Model**, click **View Qualitative Scoring Model**

→ The **View Qualitative Scoring Model** screen is displayed.

Figure 189 : View Qualitative Scoring Model




5. Click .
6. Specify the search criteria to fetch the required qualitative scoring model.


Figure 190 : View Qualitative Scoring Model - Search Option



7. Click **Search**.

For more information on fields, refer to the field description table below.

Table 157 : View Qualitative Scoring Model -Search Option- Field Description



Field	Description
The following fields are displayed, once you click  .	
Scoring Model Code	Specify the scoring model code.
Scoring Model Description	Specify the scoring model description.
Authorization Status	Select the authorization status of the logical model. The options are: <ul style="list-style-type: none"> • Authorized • Unauthorized
Record Status	Select the record status of the logical model. The options are: <ul style="list-style-type: none"> • Open • Close

The following fields are displayed in the widget.

For more information on fields, refer to the field description table below.

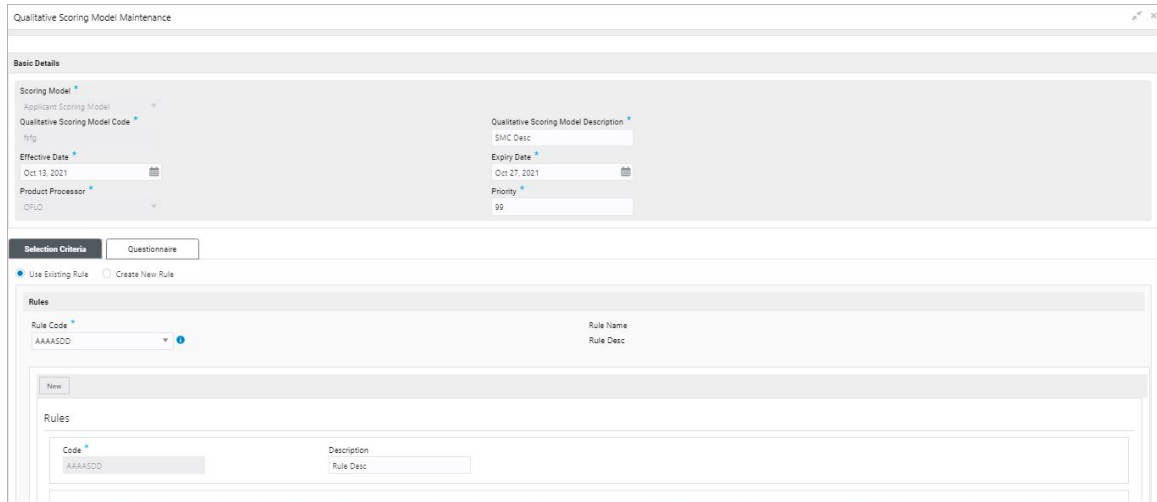
Table 158: View Qualitative Scoring Model – Field Description.

Field	Description
Scoring Model Code	View the scoring model code.
Scoring Model Description	View the scoring model description.
Product Processor Code	View the product processor code.

5. Click this icon  to unlock, delete, authorize or view the created qualitative scoring model.
6. To authorise the qualitative scoring model, see the Authorization process.
7. Click  unlock to modify the following fields. The fields are displayed in the **Qualitative Scoring Model Maintenance** screen. The following fields are editable during unlock.
 - Qualitative Scoring Model Description
 - Effective Date before Authorization
 - Expiry Date
 - Priority
 - Add new fact or rule to the selection criteria

- Enable, if you want to disable any question ID from the model
- Modify the score for existing response
- Define score or update score a range when new questions are added or modified in a questionnaire
- Scoring model before authorization


Figure 191 : Qualitative Scoring Model Maintenance - Modify



For more information on fields, refer to the field description table below.

Table 159: Qualitative Scoring Model Maintenance – Modify – Field Description.

Field	Description
<p>Once you click the 6 option, the following fields are displayed in the Qualitative Scoring Model Maintenance screen.</p>	
Basic Details	
Scoring Model	View the scoring model for the created qualitative scoring model.
Qualitative Scoring Model Code	View the qualitative scoring model code for the created qualitative scoring model.
Qualitative Scoring Model Description	View the qualitative scoring model description for the created qualitative scoring model. You can modify the same.
Effective Date	View the effective date of the created qualitative scoring model. You can modify the same before authorization.
Expiry Date	View the expiry date of the created qualitative scoring model. You can modify the same.
Product Processor	View the product processor for the created qualitative scoring model.

Field	Description
Priority	View the priority of the created qualitative scoring model. You can modify the same.
Selection Criteria	
Use Existing Rule	Indicates if the existing rule is linked. You can modify the same.
Rules	
Rule Code	View the rule code for the created qualitative scoring model. You can modify the same.
	Click this icon to get the information about the rule.
Rule Name	View the rule name of the rule code for the created qualitative scoring model.
Rules	
Code	View the rule code.
Description	View the rule description.
Expression Builder	
+ icon	Click this icon to add new expression.
Fact / Rules	View the fact or rule for the created qualitative scoring model.
Operator	View the comparison operator for the created qualitative scoring model.
Data Type	View the data type for the fact or rule for the created qualitative scoring model.
Output	View the output for the created qualitative scoring model.
Expression	View the expression updated in the expression builder.
Scoring Rule	
Applicable for the Application scoring Model .	
Score	
Rule Code	View the rule code for the created qualitative scoring model. You can modify the same.
Rule Name	View the rule name for the created qualitative scoring model.

Field	Description
Questionnaire	
Applicable for Applicant Scoring Model .	
Score	
Questionnaire Code	View the questionnaire code for the created qualitative scoring model. You can modify the same.
Questionnaire Name	View the questionnaire name for the created qualitative scoring model.
Question ID	View the question ID for the created qualitative scoring model.
Question	View the question for the created qualitative scoring model.
Define Range/Value	View the defined range or value. You can modify the same.
Value	View the defined value for the created qualitative scoring model.
Score	View the score for the created qualitative scoring model. You can modify the same.
Category	View the category for the created qualitative scoring model. You can modify the same.
Enable	View if the question ID is enabled or not.

8. Click save to update the modified fields.


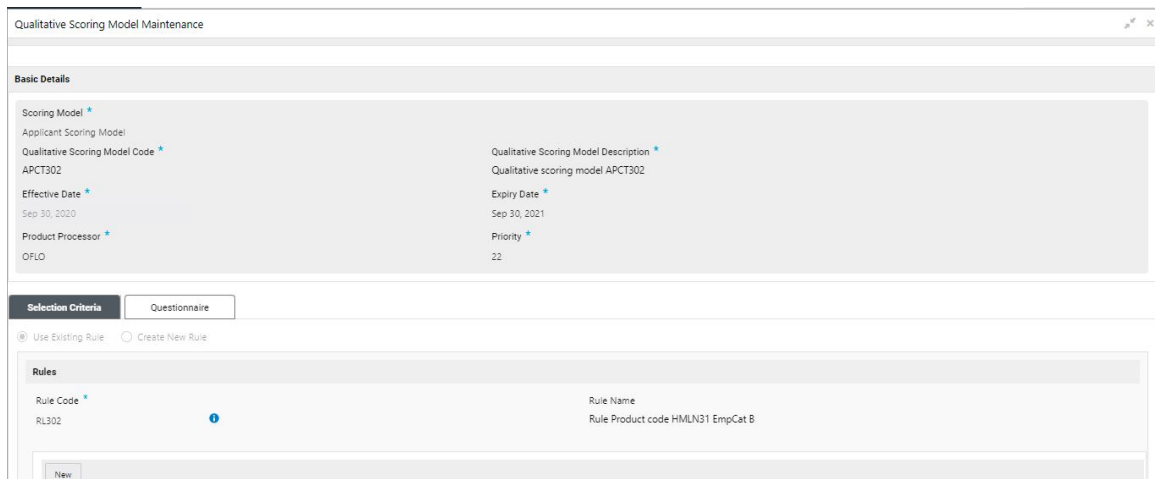

9. Click  to view the created qualitative scoring model. The fields are displayed in **Qualitative Scoring Model Maintenance** screen.

Figure 192 : Qualitative Scoring Model Maintenance - View



For more information on fields, refer to the field description table below.

Table 160 : Qualitative Scoring Model Maintenance- View – Field Description.

Field	Description
Basic Details	
Scoring Model	View the scoring model for the created qualitative scoring model.
Qualitative Scoring Model Code	View the qualitative scoring model code for the created qualitative scoring model.
Qualitative Scoring Model Description	View the qualitative scoring model description for the created qualitative scoring model.
Effective Date	View the effective date of the created qualitative scoring model.
Expiry Date	View the expiry date of the created qualitative scoring model.
Product Processor	View the product processor for the created qualitative scoring model.
Priority	View the priority of the created qualitative scoring model.
Selection Criteria	
Rules	
Use Existing Rule	Indicates if the existing rule is linked.
Rules	
Rule Code	View the rule code for the created qualitative scoring model.
	Click this icon to get the information about the rule.
Rule Name	View the rule name of the rule code for the created qualitative scoring model.
Create New Rule	Indicates if the new rule is created.
Rules	
Rule Code	View the rule code of the created qualitative scoring model.
Description	View the rule description of the created qualitative scoring model.
Expression Builder	
+ icon	Click this icon to add new expression.
Fact / Rules	View the fact/rules of the created qualitative scoring model.
Operator	View the comparison operator of the created qualitative scoring model.
Data Type	View the data type for the fact or rule of the created qualitative scoring model.

Field	Description
Output	View the output of the created qualitative scoring model.
Expression	View the expression updated in the expression builder of the created qualitative scoring model.
Scoring Rule	
Applicable for the Application scoring Model .	
Score	
Rule Code	View the rule code for the created qualitative scoring model.
Rule Name	View the rule name for the created qualitative scoring model.
Questionnaire	
Applicable for Applicant Scoring Model .	
Score	
Questionnaire Code	View the questionnaire code for the created qualitative scoring model.
Questionnaire Name	View the questionnaire name for the created qualitative scoring model.
Question ID	View the question ID for the created qualitative scoring model.
Question	View the question for the created qualitative scoring model.
Define Range/Value	View the defined range or value.
Value	View the defined value for the created qualitative scoring model.
Score	View the score for the created qualitative scoring model.
Category	View the category for the created qualitative scoring model.
Enable	View if the question ID is enabled or not.

3.49 Scoring Feature

Lending institutions have complex credit scoring models. The model uses the information contained in an application such as salary, credit commitments, and past loan performances to determine a credit score of an application or an existing customer. The model generates a score and based on that score, the system takes the decision like approve, referred or to reject the application. To achieve these, in the decision service, you need to define maintenances of scoring feature. A feature can be either fact based or rule based. The features created in this maintenance can be linked in quantitative score model and decision grade matrix screen.

3.49.1 Create Scoring Feature

Using this screen, you can define scoring feature for determining the credit score. This score applies to applications during origination and based on the information received from the product processor.

To create a Scoring Feature:


1. From **Home** screen, click **Core Maintenance**, Under **Core Maintenance**, click **SCredit Decision**.
2. Under **Credit Decision** click, **Maintenance**.
3. Under **Maintenance** click, **Scoring Feature**.
4. Under **Scoring Feature**, click **Create Scoring Feature**.

→ The **Create Scoring Feature** screen is displayed.

Figure 193 : Create Scoring Feature

5. On **Create Scoring Feature** screen, specify the fields. The fields, which are marked with asterisk, are mandatory. For more information on fields, refer to the field description table below.

Table 161 : Create Scoring Feature - Field Description

Field	Description
Basic Details	
Feature Code	Specify the unique feature code.
Feature Description	Specify a short description for the feature.
Product Processor	Specify the product processor for which the feature is being created.
Rule	<p>Select the rule, if it is required to define the feature.</p> <p>This option is used to decide whether the feature is rule based or fact based.</p> <p>The options are:</p> <ul style="list-style-type: none"> • Yes • No
Fact Code	<p>Select the fact code to be mapped to the feature from the drop-down list.</p> <p>This field is enabled if the Rule is selected as No.</p>
Fact Name	<p>View the fact name for the selected fact.</p> <p>This field is enabled if the Rule is selected as No.</p>
Rule Code	<p>Select the rule code to be mapped to the feature from the drop-down list.</p> <p>This field is enabled, if the Rule is selected as Yes.</p>
	Click this icon to get the information about the rule.
Rule Name	<p>View the rule name for the selected rule.</p> <p>This field is enabled if the Rule is selected as Yes.</p>

6. Click **Save**.
7. The scoring feature is successfully created and can be viewed using the **View Scoring Feature** screen.

3.49.2 View Scoring Feature

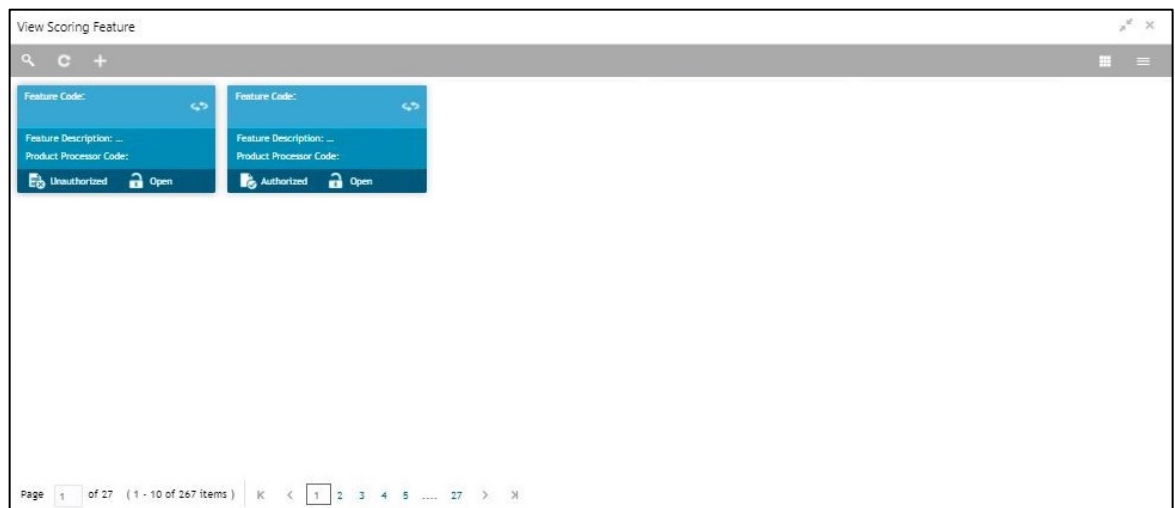
Using this screen, you can view the scoring feature created using the **Create Scoring Feature** screen. The status of the uploaded feature is displayed as **Unauthorized** and **Open**. Once the checker authorizes the model, the status is updated to **Authorized** and **Open**.

To view an uploaded scoring feature:

1. From **Home screen**, click **Core Maintenance**. Under **Core Maintenance**, click **Credit Decision**.
2. Under **Credit Decision** click, **Maintenance**.
3. Under **Maintenance** click, **Scoring Feature**.
4. Under **Scoring Feature**, click **View Scoring Feature**.

→ The **View Scoring Feature** screen is displayed.

Figure 194 : View Scoring Feature




5. Click .
6. Specify the search criteria to fetch the required scoring feature.


Figure 195 : View Scoring Feature - Search Option



7. Click **Search**.

For more information on fields, refer to the field description table below.

Table 162 : View Scoring Feature- Search Option- Field Description

Field	Description
The following fields are displayed, once you click  .	
Feature Code	View the feature code.
Feature Description	View the feature description.
Authorization Status	Select the authorization status of the feature. The options are: <ul style="list-style-type: none"> • Authorized • Unauthorized
Record Status	Select the record status of the feature. The options are: <ul style="list-style-type: none"> • Open • Close

The following fields are displayed in the widget.

For more information in fields, refer to the field description table below.

Table 163 : View Scoring Feature - Field Description

Field	Description
Feature Code	Displays the feature code.
Feature Description	Displays the feature description.
Product Processor	Displays the product processor.





8. Click this icon  to unlock, delete, authorize or view the created scoring feature.
9. To authorise the feature, see the Authorization process.
10. Click  unlock to modify the following fields. The fields are displayed in the **Scoring Feature Maintenance** screen. The following fields are editable.
 - Feature Description
 - Modification of rule linkage
 - Modification of fact mapped to the feature in case no rule is linked to the feature.

Figure 196 : Scoring Feature Maintenance - Modify

For more information on fields, refer to the field description table below.

Table 164 : Scoring Feature Maintenance – Modify - Field Description

Field	Description
Once you click the  option, the following fields are displayed in the Scoring Feature Maintenance screen.	
Basic Details	
Feature Code	View the feature code.
Feature Description	View the feature description. You can modify the same.
Product Processor	View the product processor for the created scoring feature.
Rule	View the rule defined to the feature. You can modify the same.
Rule Code	View the rule code of the feature. You can modify the same. This field is displayed, if the Rule is selected as Yes .
	Click this icon to get the information about the rule.
Rule Name	View the rule name of the feature. This field is displayed, if the Rule is selected as Yes .
Fact Code	View the fact code of the feature. You can modify the same. This field is displayed, if the Rule is selected as No .

Field	Description
Fact Name	View the fact name of the feature. This field is displayed if the Rule is selected as No .

3.50 Quantitative Scoring Model

Quantitative analysis involves, an assessment of the financial position based on the customer's income and monthly expenses. It may also include a cash flow analysis of the customer's accounts and credit history.

Banks usually grant loan based on a credit scoring model that combines quantitative and qualitative analysis.

3.50.1 Create Quantitative Scoring Model

Using this screen, you can define quantitative scoring model based on the various scoring parameters. The parameters driving the scoring models are configurable. You can create quantitative scoring model by updating various details.

To create a Quantitative Scoring Model:

1. From **Home screen**, click **Core Maintenance**. Under **Core Maintenance**, click **Credit Decision**.
2. Under **Credit Decision**, click **Maintenance**. Under **Maintenance**, click **Quantitative Scoring Model**.
3. Under **Quantitative Scoring Model**, click **Create Quantitative Scoring Model**.

→ The **Create Quantitative Scoring Model** screen is displayed.

Figure 197 : Create Quantitative Scoring Model

4. On **Create Quantitative Scoring Model** screen, specify the fields. The fields, which are marked with asterisk, are mandatory. For more information on fields, refer to the field description table below.

Table 165 : Create Quantitative Scoring Model - Field Description


Field	Description
Basic Details	
Scoring Model	Select the scoring model from the drop-down list. The options are: <ul style="list-style-type: none"> • Application Scoring Model • Applicant Scoring Model • Multi-Applicant Scoring Model
Scoring Model code	Specify the unique scoring model code.
Scoring Model Description	Specify a short description for the scoring model.
Effective Date	Specify the effective date.
Expiry Date	Specify the expiry date.
Product Processor	Specify the product processor for which the model is being created.
Priority	Specify the priority of the model.

5. Click the **Selection Criteria** tab to define scoring model.

Figure 198 : Create Quantitative Scoring Model – Selection Criteria Tab

For more information on fields, refer to the field description table below.

Table 166 : Create Quantitative Scoring Model – Selection Criteria Tab - Field Description

Field	Description
The following fields appear if you click Selection Criteria Tab.	
Use Existing Rule	By default, this option is enabled. Indicates if the existing rule is linked.
Rules	
Rule Code	Select the rule code from the drop down list.
	Click this icon to get the information about the rule.
Rule Name	View the rule name of the rule code.
Create New Rule	Select this option to create new rule.
Rules	
Code	Specify the new rule code.
Description	Specify the rule description.
Expression Builder	
+ icon	Click this icon to add new expression.
Fact / Rules	Select the fact or rule from the drop-down list. Once you select the fact/rules one more field opens adjacent to the output, update the same based on the selected output option.

Field	Description
Operator	<p>Select the comparison operator from the drop-down list.</p> <p>The options are:</p> <ul style="list-style-type: none"> • < • > • + • = • % • != • - • >= • <= • * • / • Contains • In • Like • Matches • Notmatches • Notcontains • Notin
Data Type	<p>Select the data type for the fact or rule. Once you select the data type one more field opens adjacent to the output, update the same based on the selected output option.</p> <p>The options are:</p> <ul style="list-style-type: none"> • Text • Number • Boolean • Date • Fact • Rules <p>The below option appears if the Data Type is selected as Boolean.</p> <ul style="list-style-type: none"> • True • False

Field	Description
<p>Output</p>	<p>Select the output from the drop-down list. Once you select the output one more field opens adjacent to the output, update the same based on the selected output option.</p> <p>The options are:</p> <ul style="list-style-type: none"> • Text • Number • Boolean • Date • Fact • Rule <p>The below option appears if the Data Type is selected as Boolean.</p> <ul style="list-style-type: none"> • True • False
<p>Expression</p>	<p>View the expression updated in the expression builder.</p>

6. Click the **Scoring Rule** tab to define the rule. This tab is enabled if **Application Scoring Model** is selected.

Figure 199 : Create Quantitative Scoring Model – Scoring Rule Tab

The screenshot shows a web application window titled "Create Quantitative Scoring Model". It has two tabs: "Selection Criteria" and "Scoring Rule", with "Scoring Rule" being the active tab. The "Basic Details" section contains the following fields:

- Scoring Model: Application Scoring Model (dropdown)
- Scoring Model Code: DMLO2 (text)
- Scoring Model Description: Scoring Model (text)
- Effective Date: Aug 4, 2021 (calendar)
- Expiry Date: Aug 21, 2021 (calendar)
- Product Processor: OFLO (dropdown)
- Priority: 1 (text)


The "Scoring Rule" section contains the following fields:

- Rule Code: MLA3 (dropdown)
- Rule Name: MLA1 (text)

At the bottom right, there are "Save" and "Cancel" buttons.

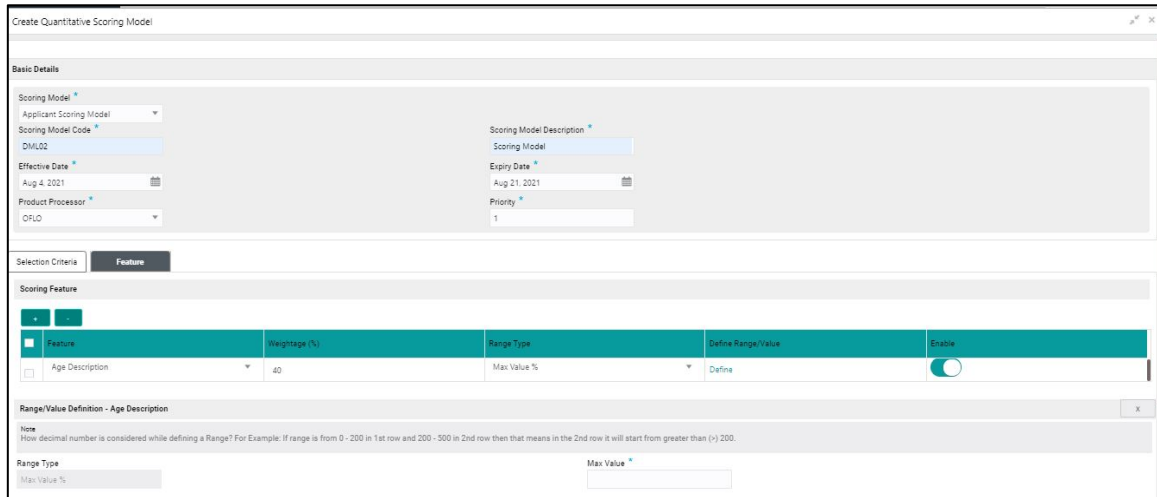
For more information on fields, refer to the field description table below.

Table 167 : Create Quantitative Scoring Model – Scoring Rule Tab - Field Description

Field	Description
The following fields appear if you click Scoring Rule Tab .	
Score	
Rule Code	Select the rule code from the drop down list.
	Click this icon to get the information about the rule.
Rule Name	View the rule name of the rule code.

- Click the **Feature** tab to define the feature. This tab is enabled if **Applicant Scoring Model** and **Multiple Applicant Scoring Model** is selected.

Figure 200 : Create Quantitative Scoring Model – Feature Tab



For more information on fields, refer to the field description table below.

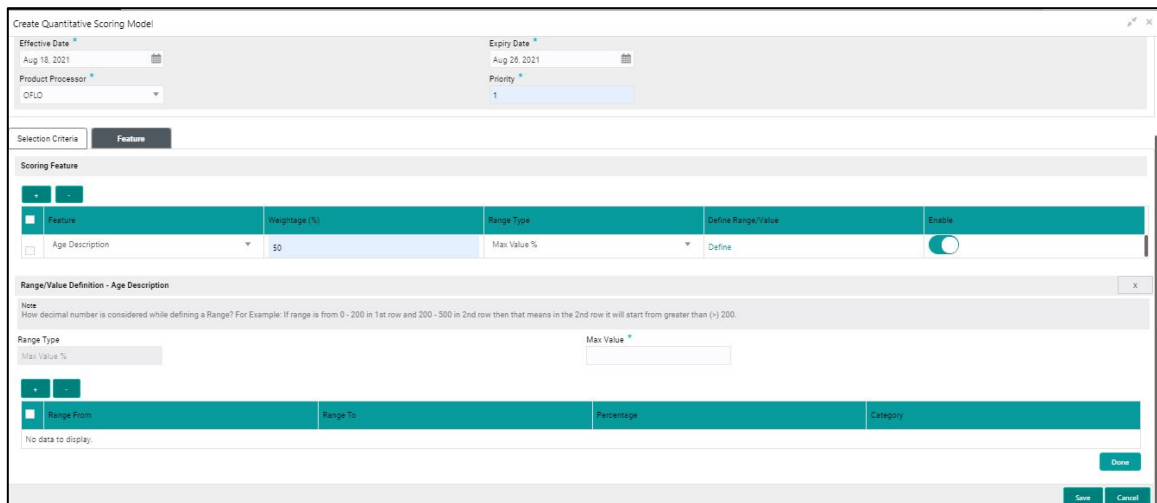
Table 168 : Create Quantitative Scoring Model – Feature Tab - Field Description

Field	Description
The following fields appear if you click Feature Tab .	
Scoring Feature	
+ icon	Click this icon to add a new row.
- icon	Click this icon to delete a row, which is already added.
Feature	Select the feature from the drop-down list.
Weightage (%)	Specify the weightage to be assigned to each feature code.

Field	Description
Range Type	Select the range type from the drop down list. The options are: <ul style="list-style-type: none"> • Max Value • Param Percent% • Value For Applicant Scoring Model this field is editable.
Define Range/Value	Click the Define link to define the feature.
Enable	By default, this option is enabled. Indicates if the scoring parameter is enabled or not.

- Click the **Define** link to define a range or absolute values for each scoring feature to be considered for scoring model and score for that range or value. In case the data type of feature is numeric such as Bureau score the below screen appears.

Figure 201 : Create Quantitative Scoring Model – Define Link – Numeric Feature



For more information on fields, refer to the field description table below.

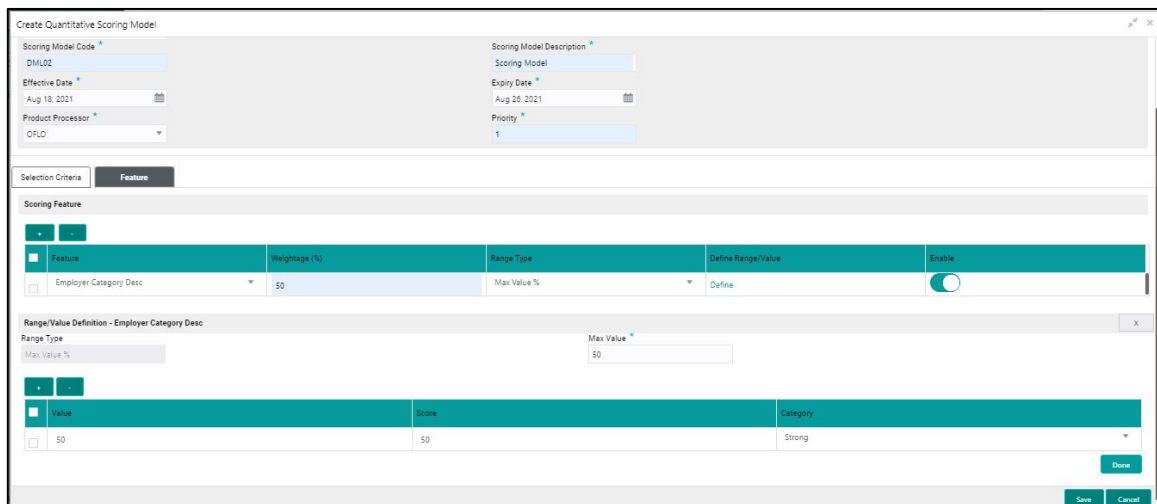
Table 169: Create Quantitative Scoring Model – Define Link – Numeric Feature- Field Description

Field	Description
The following fields appear if you click Define link.	
Range/Value Definition	
Range Type	Displays the range type selected.
Max Value	Specify the maximum value on which scoring has to be done, if range type ID is Max Value % or Param %.
+ icon	Click this icon to add a new row.

Field	Description
- icon	Click this icon to delete a row, which is already added.
Range From	Specify the minimum range of value based on which scoring is to be done.
Range To	Specify the maximum range of value based on which scoring is to be done.
Score/Percentage	Specify the percentage to be assigned for each range or value, if range type is Max value % or Param %. Specify the score to be assigned for each range or value, if range type is Value.
Category	Specify the category for each range or value from the drop-down list. The values are configurable based on the lookup values maintained. The options are: <ul style="list-style-type: none"> • Strong • Medium • Weak

9. In case the the data type of feature is alphanumeric such as Employment Category the below screen appears.

Figure 202: Create Quantitative Scoring Model- Define Link –Alphanumeric Feature



For more information on fields, refer to the field description table below.

Table 170: Create Quantitative Scoring Model – Define Link – Alphanumeric Feature - Field Description

Field	Description
The following fields appear if you click Define link.	
Range/Value Definition	
Range Type	Displays the range type selected. The default value for the same is Value .
Max Value	Specify the maximum value for the range type.
+ icon	Click this icon to add a new row.
- icon	Click this icon to delete a row, which is already added.
Value	Specify the value of the feature.
Score	Specify the score assigned for each range value.
Category	Specify the category for each range or value from the drop-down list. The options are: <ul style="list-style-type: none"> • Strong • Medium • Weak

10. Click **Done**, to save the data and close the range panel.

11. Click **Save**.

The quantitative scoring model is successfully created and can be viewed using the **View Quantitative Scoring Model** screen.

3.50.2 View Quantitative Scoring Model

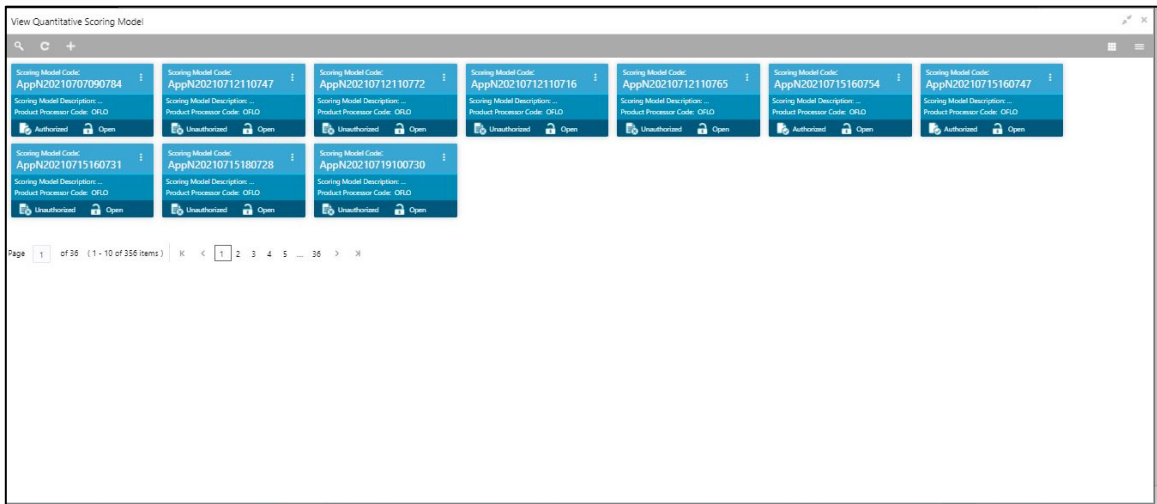
Using this screen, you can view the quantitative scoring Model created using the **Create Quantitative Scoring Model** screen. The status of the uploaded model is displayed as **Unauthorized** and **Open**. Once the checker authorizes the model, the status is updated to **Authorized** and **Open**.

To view created quantitative scoring model:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance**, click **Credit Decision**.
2. Under **Credit Decision** click, **Maintenance**.
3. Under **Maintenance** click, **Quantitative Scoring Model**.
4. Under **Quantitative Scoring Model**, click **View Quantitative Scoring Model**.

→ The **View Quantitative Scoring Model** screen is displayed.

Figure 203 : View Quantitative Scoring Model




5. Click .
6. Specify the search criteria to fetch the required quantitative scoring model.


Figure 204 : View Quantitative Scoring Model- Search Option



7. Click **Search**.

For more information on fields, refer to the field description table below.

Table 171 : View Quantitative Scoring Model- Search Option- Field Description

Field	Description
	The following fields are displayed, once you click  .



Field	Description
Scoring Model Code	Specify the scoring model code.
Scoring Model Description	Specify the scoring model description.
Authorization Status	Select the authorization status of the model. The options are: <ul style="list-style-type: none"> • Authorized • Unauthorized
Record Status	Select the record status of the model. The options are: <ul style="list-style-type: none"> • Open • Close

The following fields are displayed in the widget.

For more information on fields, refer to the field description table below.

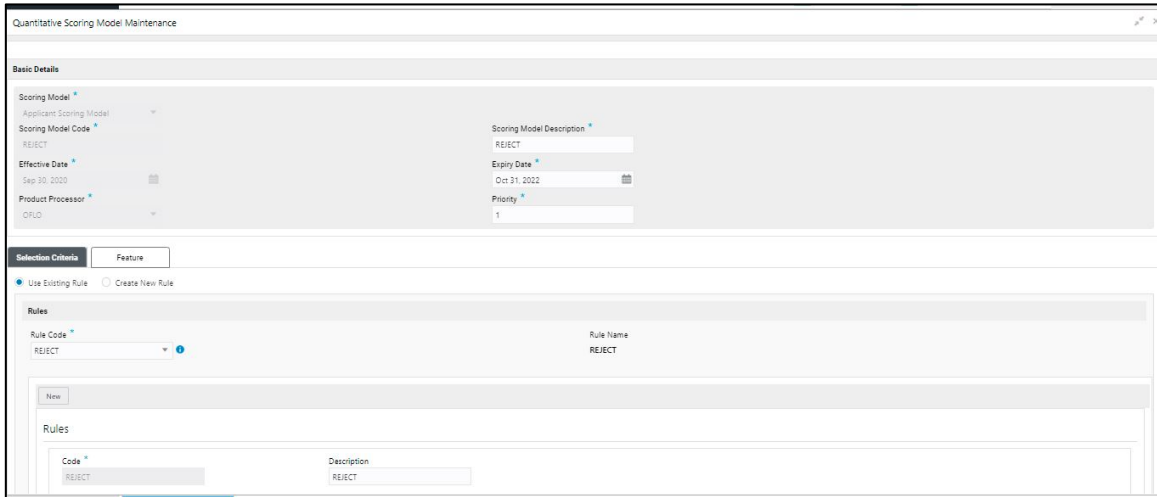
Table 172 : View Quantitative Scoring Model- Field Description

Field	Description
Scoring Model Code	Displays the scoring model code.
Scoring Model Description	Displays the scoring model description.
Product Processor Code	Displays the product processor code.

8. Click this icon  to unlock, delete, authorize or view the created quantitative scoring model.
9. To authorise the quantitative scoring model, see the Authorization process.
10. Click  unlock to modify the following fields. The fields are displayed in the **Quantitative Scoring Model Maintenance** screen. The following fields are editable.
 - Scoring Model Description
 - Effective date, before authorization
 - Expiry Date
 - Priority
 - Add/Delete new scoring feature to the quantitative scoring model
 - Change the weightage of the scoring feature code
 - Range Type
 - Facts and Rules in Selection Criteria

- Range/Value
- Score
- Category
- Enable if you want to remove any scoring feature from the model instead of removing, you can disable the feature. Thus, the weightage assigned to that particular feature is auto removed and is shown as blank.


Figure 205 : Quantitative Scoring Model Maintenance - Modify




For more information on fields, refer to the field description table below.

Table 173 : Quantitative Scoring Model Maintenance – Modify - Field Description

Field	Description
<p>Once you click the ⁶ option, the following fields are displayed in the Scoring Model Maintenance screen.</p>	
Basic Details	
Application Scoring Model	View the application scoring model.
Scoring Model Code	View the scoring model code for the created quantitative scoring model.
Scoring Model Description	View the scoring model description for the created quantitative scoring model. You can modify the same
Effective Date	View the effective date for the created quantitative scoring model. You can modify the same before authorization.
Expiry Date	View the expiry date of the created quantitative scoring model. You can modify the same.
Product Processor	View the product processor for the created quantitative scoring model.

Field	Description
Priority	View the priority of the created quantitative scoring model. You can modify the same.
Selection Criteria	
Use Existing Rule	Indicates if the existing rule is linked. You can modify the same
Rules	
Rule Code	View the rule code for the created quantitative scoring model. You can modify the same.
	Click this icon to get the information about the rule.
Rule Name	View the rule name of the rule code for the created quantitative scoring model.
Create New Rule	View the rule code for the created quantitative scoring model. You can modify the same.
Rules	
Code	Specify the new rule code for quantitative scoring model.
Description	Specify the rule description for the quantitative scoring model.
Expression Builder	
+ icon	This icon can add new expression.
Fact / Rules	View the fact or rule for the created quantitative scoring model.
Operator	View the comparison operator for the created quantitative scoring model.
Data Type	View the data type for the fact or rule for the created quantitative scoring model.
Output	View the output for the created quantitative scoring model.
Expression	View the expression updated in the expression builder for the created quantitative scoring model.
Feature	
This tab is enabled for the Applicant Scoring Model .	
Scoring Feature	
+ icon	This icon adds new row.

Field	Description
- icon	This icon deletes a row, which is already added.
Feature	View the feature for the created quantitative scoring model.
Weightage (%)	View the weightage assigned to each feature for the created quantitative scoring model. You can modify the same.
Range Type	View the range type for the created quantitative scoring model. The options are: <ul style="list-style-type: none"> • Max Value • Param Percent% • Value
Define Range/Value	View the range/value defined for the created quantitative scoring model.
Range From	View the minimum range of value based on which scoring is done. You can modify the same.
Range To	View the maximum range of value based on which scoring is done. You can modify the same.
Score	View the score assigned for each range or value. You can modify the same.
Category	View the category for each range or value for the created quantitative scoring model. The options are: <ul style="list-style-type: none"> • Strong • Medium • Weak You can modify the same.
Enable	View the parameter for the created quantitative scoring model. You can modify the same.
Scoring Rule	
This tab is enabled for the Application Scoring Model .	
Score	

Field	Description
Rule Code	View the rule code for the created quantitative scoring model.
	Click this icon to get the information about the rule.
Rule Name	View the rule name of the rule code for the created quantitative scoring model.

11. Click **Save**, to update the modified fields.


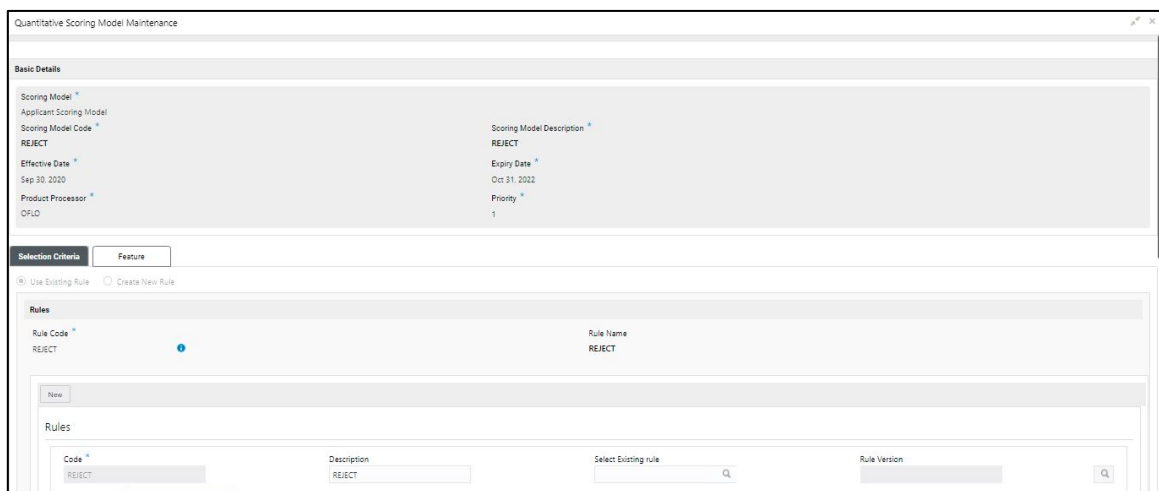

12. Click  to view the created quantitative scoring model. The fields are displayed in **Quantitative Scoring Model Maintenance** screen


Figure 206 : Quantitative Scoring Model Maintenance – View




For more information on fields, refer to the field description table below.

Table 174 : Quantitative Scoring Model Maintenance – View - Field Description

Field	Description
Once you click the  option, the following fields are displayed in the Quantitative Scoring Model Maintenance screen.	
Basic Details	
Scoring Model	View the scoring Model for the created quantitative scoring model.
Scoring Model Code	View the scoring model code for the created quantitative scoring model.
Scoring Model Description	View the scoring model description for the created quantitative scoring model.
Effective Date	View the effective date for the created quantitative scoring model.
Expiry Date	View the expiry date of the created quantitative scoring model.

Field	Description
Product Processor	View the product processor for the created quantitative scoring model.
Priority	View the priority of the created quantitative scoring model.
Selection Criteria	
Use Existing Rule	Indicates if the existing rule is linked.
Rules	
Rule Code	View the rule code for the created quantitative scoring model.
	Click this icon to get the information about the rule.
Rule Name	View the rule name of the rule code for the created quantitative scoring model.
Create New Rule	View the rule code for the created quantitative scoring model.
Rules	
Code	Specify the new rule code for quantitative scoring model.
Description	Specify the rule description for the quantitative scoring model.
Expression Builder	
+ icon	This icon can add new expression.
Fact / Rules	View the fact or rule for the created quantitative scoring model.
Operator	View the comparison operator for the created quantitative scoring model.
Data Type	View the data type for the fact or rule for the created quantitative scoring model.
Output	View the output for the created quantitative scoring model.
Expression	View the expression updated in the expression builder for the created quantitative scoring model.
Feature	
This tab is enabled for the Applicant Scoring Model .	
Scoring Feature	
+ icon	This icon adds new row.
- icon	This icon deletes a row, which is already added.
Feature	View the feature for the created quantitative scoring model.

Field	Description
Weightage (%)	View the weightage assigned to each feature for the created quantitative scoring model.
Range Type	View the range type for the created quantitative scoring model. The options are: <ul style="list-style-type: none"> • Max Value • Param Percent% • Value
Define Range/Value	View the range/value defined for the created quantitative scoring model.
Range From	View the minimum range of value based on which scoring is done.
Range To	View the maximum range of value based on which scoring is done.
Score	View the score assigned for each range or value.
Category	View the category for each range or value for the created quantitative scoring model. The options are: <ul style="list-style-type: none"> • Strong • Medium • Weak
Enable	View the parameter for the created quantitative scoring model.
Scoring Rule	
This tab is enabled for the Application Scoring Model .	
Score	
Rule Code	View the rule code for the created quantitative scoring model.
	Click this icon to get the information about the rule.
Rule Name	View the rule name of the rule code for the created quantitative scoring model.

3.51 Decision Grade Matrix

Using this screen, you can define the decision and grade based on the score calculated by the scoring model.

3.51.1 Create Decision Grade Matrix

You can create decision and grade matrix by updating various details.

To create decision and grade matrix:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance** click, **Credit Decision**.
2. Under **Credit Decision** click, **Maintenance**,
3. Under **Maintenance**, click **Decision Grade Matrix**.
4. Under **Decision Grade Matrix**, click **Create Decision Grade Matrix**.

→ The **Create Decision Grade Matrix** screen is displayed.

Figure 207 : Create Decision Grade Matrix

5. On **Create Decision Grade Matrix** screen, specify the fields. The fields, which are marked with asterisk, are mandatory. For more information on fields, refer to the field description table below.

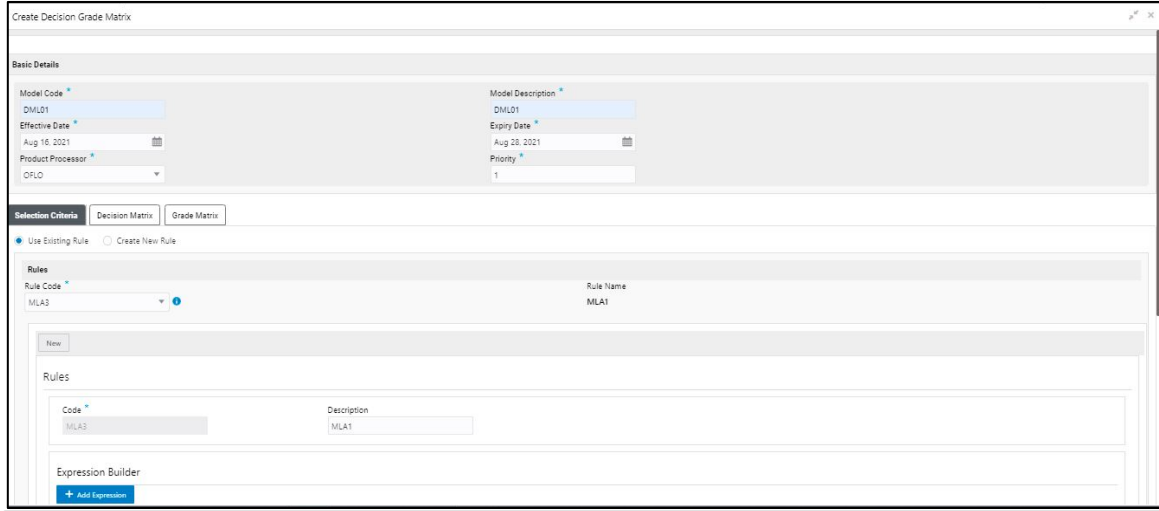
Table 175: Create Decision and Grade Matrix - Field Description

Field	Description
Basic Details	
Model code	Specify the unique model code.
Model Description	Specify a short description for the model.
Effective Date	Select the effective date.
Expiry Date	Select the expiry date.
Product Processor	Specify the product processor for which the decision and grade matrix is being created.

Field	Description
Priority	Specify the priority of the model.


- Click the **Selection Criteria** tab to configure the parameters based on which decision model is to be resolved.

Figure 208 : Create Decision Grade Matrix – Selection Criteria Tab



For more information on fields, refer to the field description table below.

Table 176 : Decision and Grade Matrix - Selection Criteria Field Description

Field	Description
The following fields appear if you click Selection Criteria Tab.	
Use Existing Rule	By default, this option is enabled. Indicates if the existing rule is linked.
Rules	
Rule Code	Select the rule code from the drop-down list.
	Click this icon to get the information about the rule.
Rule Name	View the rule name.
Create New Rule	Select this option to create new rule.
Expression Builder	
+ icon	Click this icon to add new expression.
Fact / Rules	Select the fact or rule from the drop-down list. Once you select the fact/rules one more field opens adjacent to the output, update the same based on the selected output option.

Field	Description
Operator	<p>Select the comparison operator from the drop-down list.</p> <p>The options are:</p> <ul style="list-style-type: none"> • < • > • + • = • % • != • - • >= • <= • * • / • Contains • In • Like • Matches • Notmatches • Notcontains • Notin
Data Type	<p>Select the data type for the fact or rule. Once you select the data type one more field opens adjacent to the output, update the same based on the selected output option.</p> <p>The options are:</p> <ul style="list-style-type: none"> • Text • Number • Boolean • Date • Fact • Rules <p>The below option appears if the Data Type is selected as Boolean.</p> <ul style="list-style-type: none"> • True • False


Field	Description
Output	<p>Select the output from the drop-down list. Once you select the output one more field opens adjacent to the output, update the same based on the selected output option.</p> <p>The options are:</p> <ul style="list-style-type: none"> • Text • Number • Boolean • Date • Fact • Rule <p>The below option appears if the Data Type is selected as Boolean.</p> <ul style="list-style-type: none"> • True • False
Expression	View the expression updated in the expression builder.

7. Click the **Decision Matrix** tab to define decision on the application. You can select the feature for which the decision needs to be maintained like Quantitative/Qualitative.

Figure 209 : Create Decision Grade Matrix- Decision Matrix Tab

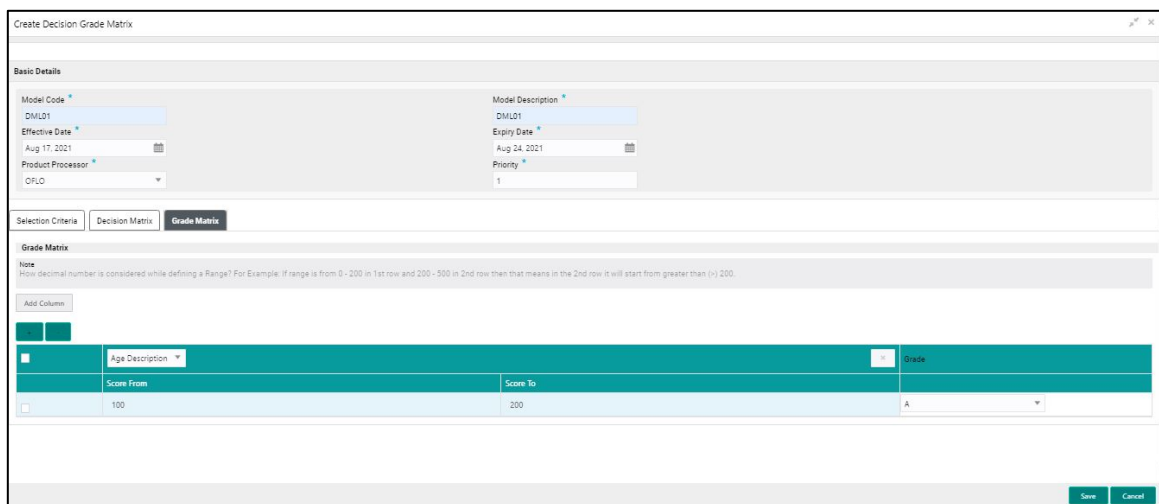
For more information on fields, refer to the field description table below.

Table 177 : Create Decision Grade Matrix – Decision Matrix Tab - Field Description

Field	Description
The following fields appear if you click Decision Matrix Tab.	
Add Column	Click Add Column , for addition of features for which decision has to be maintained.
	Click this icon to delete a column, which is already added.
+ icon	Click this icon to add a new row.
- icon	Click this icon to delete a row, which is already added.
Score From	Specify the minimum range of score for the decision.
Score To	Specify the maximum range of score for the decision.
Decision	Specify the decision of an application from the drop-down list. The values are configurable based on the look up values maintained The options are: <ul style="list-style-type: none"> • Approved • Manual • Rejected


- Click the **Grade Matrix** tab to assign the grade to the application that is used during the pricing of the application. You can select the feature for which the grade needs to be maintained like Quantitative/Qualitative.

Figure 210 : Create Decision Grade Matrix – Grade Matrix Tab



For more information on fields, refer to the field description table below.

Table 178 : Create Decision Grade Matrix – Grade Matrix Tab - Field Description

Field	Description
The following fields appear if you click Grade Matrix tab.	
Add Column	Click Add Column , for addition of features for which decision has to be maintained.
	Click this icon to delete a column, which is already added.
+ icon	Click this icon to add a new row.
- icon	Click this icon to delete a row, which is already added.
Score From	Specify the minimum range of the score for the grade.
Score To	Specify the maximum range of the score for the grade.
Grade	Specify the grade of the application based on the score scored. The values are configurable based on the look up values maintained. The options are: <ul style="list-style-type: none"> • A • B • C

9. Click **Save**.

The decision grade matrix is successfully created and can be viewed using the **View Decision and Grade Matrix** screen.

3.51.2 View Decision Grade Matrix

Using this screen, you can view the decision grade matrix created using the **Create Decision Grade Matrix** screen. The status of the uploaded model is displayed as **Unauthorized** and **Open**. Once the checker authorizes the matrix, the status is updated to **Authorized** and **Open**.

To view an uploaded decision grade matrix:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance** click, **Credit Decision**.
2. Under **Credit Decision**, click **Maintenance**.
3. Under **Maintenance**, click **Decision Grade Matrix**.
4. Under **Decision Grade Matrix**, click **View Decision Grade Matrix**.
→ The **View Decision Grade Matrix** screen is displayed.

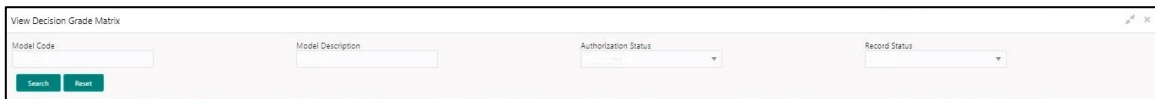
Figure 211 : View Decision Grade Matrix



5. Click .

6. Specify the search criteria to fetch the required decision grade matrix.


Figure 212 : View Decision Grade Matrix- Search Option



7. Click **Search**.

For more information on fields, refer to the field description table below.

Table 179 : View Decision Grade Matrix Field Description

Field	Description
The following fields are displayed, once you click  .	
Model Code	View the model code.
Model Description	View the model description.
Authorization Status	Select the authorization status of the model. The options are: <ul style="list-style-type: none"> • Authorized • Unauthorized
Record Status	Select the record status of the model. The options are: <ul style="list-style-type: none"> • Open • Close

The following fields are displayed in the widget.

For more information on fields, refer to the field description table below.

Table 180 : View Decision Grade Matrix - Field Description

Field	Description
Model Code	Displays the model code.
Model Description	Displays the description of the model.
Product Processor	Displays the product processor for which the model is created.



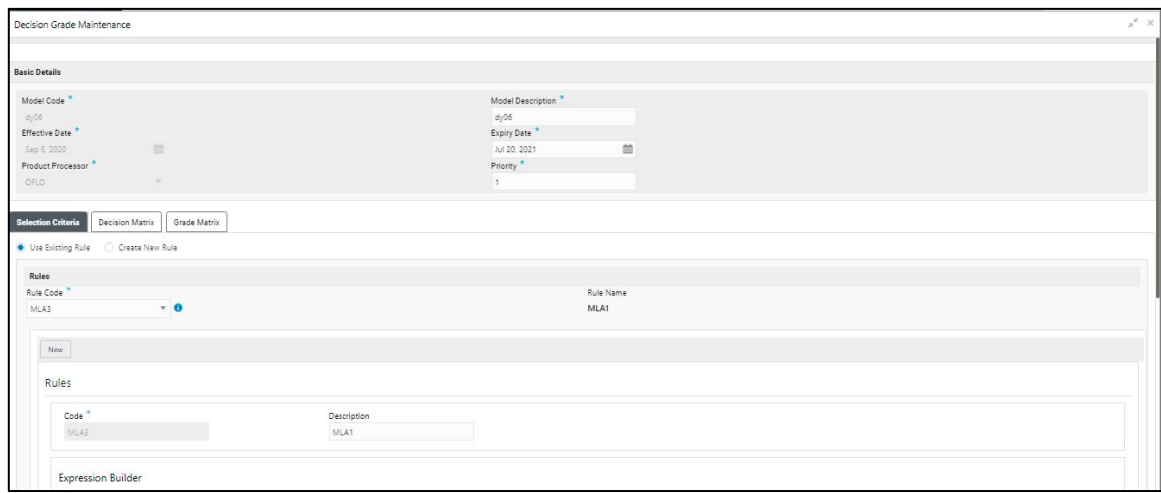

8. Click this icon  to unlock, delete, authorize or view the created decision grade matrix.
9. Click  unlock to modify the following fields. The fields are displayed in the **Decision Grade Maintenance screen**. The following fields are editable.
 - Model Description
 - Effective Date, before authorization
 - Expiry Date
 - Priority
 - Rule Code
 - Add New fact or rule to the selection criteria
 - Score from
 - Score to
 - Decision
 - Grade



Figure 213 : Decision Grade Maintenance - Modify



For more information on fields, refer to the field description table below.

Table 181 : View Decision Grade Matrix- Modify- Field Description

Field	Description
Basic Details	
Model Code	View the model code for created decision grade matrix.
Model Description	View the description of the model for the created decision grade matrix. You can modify the same.
Effective Date	View the effective date of the model for the created decision grade matrix.
Expiry Date	View the expiry date of the model for the created decision grade matrix. You can modify the same.
Product Processor	View the product processor for the created decision grade matrix.
Priority	View the priority of the model for the created decision grade matrix. You can modify the same.
Selection Criteria	
Use Existing Rule	Indicates if the existing rule is linked.
Rules	
Rule Code	View the rule code of the created decision grade matrix. You can modify the same.
	Click this icon to get the information about the rule.
Rule Name	View the rule name.
Create New Rule	View the rule code for the created decision grade matrix. You can modify the same.
Rules	
Code	Specify the new rule code for decision grade matrix.
Description	Specify the rule description for the decision grade matrix.
Expression Builder	
+ icon	This icon can add new expression.
Fact / Rules	View the fact or rule for the created decision grade matrix.
Operator	View the comparison operator for the created decision grade matrix.

Field	Description
Data Type	View the data type for the fact or rule for the created decision grade matrix.
Output	View the output for the created decision grade matrix.
Expression	View the expression updated in the expression builder for the created quantitative scoring model.
Decision Matrix	
Add Column	Add Column , can add addition of features for which decision has to be maintained.
	This icon can delete a column, which is already added.
+ icon	This icon can add new row.
- icon	This icon can delete row, which is already added.
Score From	View the minimum range of score for the decision. You can modify the same.
Score To	View the maximum range of score for the decision. You can modify the same.
Decision	View the decision of an application. The values are configurable based on the look up values maintained The options are: <ul style="list-style-type: none"> • Approved • Manual • Rejected You can modify the same.
Grade Matrix	
Add Column	Add Column , can add addition of features for which decision has to be maintained.
	This icon can delete a column, which is already added.
+ icon	This icon can add new row.
- icon	This icon can delete row, which is already added.
Score From	View the minimum range of score for the grade. You can modify the same.

Field	Description
Score To	View the maximum range of score for the grade. You can modify the same.
Grade	View the grade of the application based on the score scored. The values are configurable based on the look up values maintained. The options are: <ul style="list-style-type: none"> • A • B • C You can modify the same.

10. Click **Save**, to update the modified field.


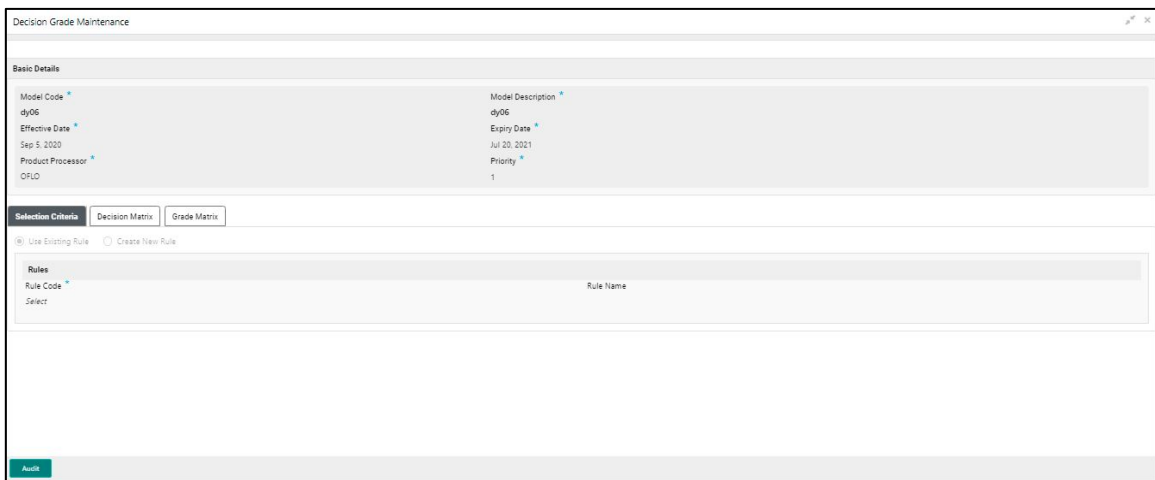
11. Click  to view the created decision grade matrix. The fields are displayed in **Decision Grade Maintenance** screen.



Figure 214 : Decision Grade Maintenance – View




For more information on fields, refer to the field description table below.

Table 182 : Decision Grade Maintenance- View- Field Description

Field	Description
Basic Details	
Model Code	View the created model code for decision grade matrix.
Model Description	View the description for the created decision grade matrix.
Effective Date	View the effective date for the created decision grade matrix.
Expiry Date	View the expiry date for the created decision grade matrix.

Field	Description
Product Processor	View the product processor for the created decision grade matrix.
Priority	View the priority for the created decision grade matrix.
Selection Criteria	
Use Existing Rule	Indicates if the existing rule is linked.
Rules	
Rule Code	View the rule code of the created decision grade matrix.
	Click this icon to get the information about the rule.
Rule Name	View the rule name.
Create New Rule	View if new rule is linked to the created decision grade matrix.
Rules	
Code	Specify the new rule code for decision grade matrix.
Description	Specify the rule description for the decision grade matrix.
Expression Builder	
+ icon	This icon can add new expression.
Fact / Rules	View the fact or rule for the created decision grade matrix.
Operator	View the comparison operator for the created decision grade matrix.
Data Type	View the data type for the fact or rule for the created decision grade matrix.
Output	View the output for the created decision grade matrix.
Expression	View the expression updated in the expression builder for the created quantitative scoring model.
Decision Matrix	
Add Column	Add Column , adds addition of features for which decision has to be maintained.
	This icon deletes a column, which is already added.
+ icon	This icon adds a new row.
- icon	This icon deletes a row, which is already added.
Score From	View the minimum range of score for the decision.
Score To	View the maximum range of score for the decision.

Field	Description
Decision	View the decision of an application. The values are configurable based on the look up values maintained The options are: <ul style="list-style-type: none"> • Approved • Manual • Rejected
Grade Matrix	
Add Column	Add Column , adds addition of features for which decision has to be maintained.
	This icon deletes a column, which is already added.
+ icon	This icon adds a new row.
- icon	This icon deletes a row, which is already added.
Score From	View the minimum range of score for the grade.
Score To	View the maximum range of score for the grade.
Grade	View the grade of the application based on the score scored. The values are configurable based on the look up values maintained. The options are: <ul style="list-style-type: none"> • A • B • C

3.52 Pricing

Risk-based pricing refers to the offering of different interest rates to different customers depending on their credit worthiness. Thus, not all borrowers for the same product receives the same interest rate and credit terms. This means that high-risk borrowers who are less likely to repay their loans in full and on time will be charged higher rate of interest. While the low risk borrowers, having greater capacity to make payments will be charged lower rate of interest.

3.52.1 Create Pricing Model

Using this screen, you can create pricing model based on various pricing parameter by updating various details.

To create a pricing set up:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance** click, **Credit Decision**.
2. Under **Credit Decision** click **Maintenance**.
3. Under **Maintenance**, click **Pricing**.
4. Under **Pricing**, click **Create Pricing Model**.

→ The **Create Pricing Model** screen is displayed.

Figure 215 : Create Pricing Model

5. On **Create Pricing Model** screen, specify the fields. The fields, which are marked with asterisk, are mandatory. For more information on fields, refer to the field description table below.

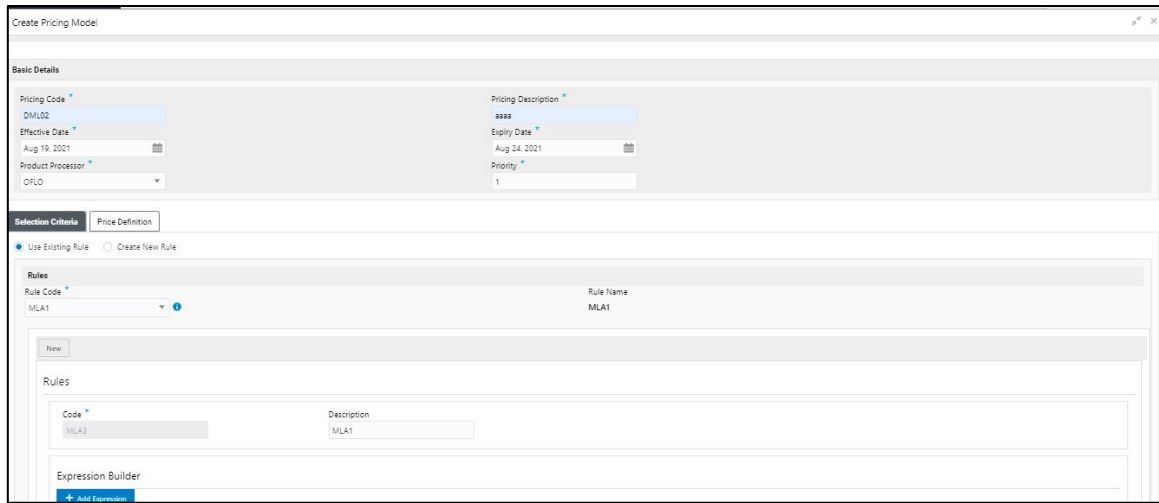
Table 183 : Create Pricing Model – Field Description

Field	Description
Basic Details	
Pricing Code	Specify the unique pricing code.
Pricing Description	Specify a short description for the pricing.

Field	Description
Effective Date	Select the effective date.
Expiry Date	Select the expiry date.
Product Processor	Specify the product processor for which the pricing is being defined.
Priority	Specify the priority of the pricing.


6. Click the **Selection Criteria** tab to define pricing.

Figure 216 : Create Pricing Model - Selection Criteria Tab



For more information on fields, refer to the field description table below.

Table 184 : Create Pricing Model – Selection Criteria - Field Description

Field	Description
The following fields appear if you click the Selection Criteria Tab.	
Use Existing Rule	By default, this option is enabled. Indicates if the existing rule is linked.
Rules	
Rule Code	Select the rule code from the drop down list.
	Click this icon to get the information about the rule.
Rule Name	View the rule name.
Create New Rule	Select this option to create new rule.
Rules	
Code	View the rule code.
Description	View the rule description.

Field	Description
Expression Builder	
+ icon	Click this icon to add new expression.
Fact / Rules	<p>Select the fact or rule from the drop-down list.</p> <p>Once you select the fact/rules one more field opens adjacent to the output, update the same based on the selected output option.</p>
Operator	<p>Select the comparison operator from the drop-down list.</p> <p>The options are:</p> <ul style="list-style-type: none"> • < • > • + • = • % • != • - • >= • <= • * • / • Contains • In • Like • Matches • Notmatches • Notcontains • Notin

Field	Description
Data Type	<p>Select the data type for the fact or rule. Once you select the data type one more field opens adjacent to the output, update the same based on the selected output option.</p> <p>The options are:</p> <ul style="list-style-type: none"> • Text • Number • Boolean • Date • Fact • Rules <p>The below option appears if the Data Type is selected as Boolean.</p> <ul style="list-style-type: none"> • True • False
Output	<p>Select the output from the drop-down list. Once you select the output one more field opens adjacent to the output, update the same based on the selected output option.</p> <p>The options are:</p> <ul style="list-style-type: none"> • Text • Number • Boolean • Date • Fact • Rule <p>The below option appears if the Data Type is selected as Boolean.</p> <ul style="list-style-type: none"> • True • False
Expression	View the expression updated in the expression builder.

7. Click the **Price Definition** tab to define pricing.

Figure 217 : Create Pricing Model – Price Definition Tab

For more information on fields, refer to the field description table below.

Table 185 : Create Pricing Model – Price Definition – Field Description

Field	Description
The following fields appear if you click Price Definition Tab.	
Minimum Rate	Specify the minimum rate applicable for the defined pricing code.
Maximum Rate	Specify the maximum rate applicable for the defined pricing code.
Rate Type	Specify the rate type from the drop-down list. The options are: <ul style="list-style-type: none"> • Flat • Tiered
Rate %	Specify the interest rate application for the defined pricing. This field appears once you select the Rate Type option as Flat .
The below field appears if you select the Rate Type option as Tiered . The below columns are available as Facts in a drop down and you need to select the same.	
Loan Amount From	Specify the minimum range of loan amount to which the interest rate is applicable.
Loan Amount To	Specify the maximum range of loan amount to which the interest rate is applicable.
Term From	Specify the minimum term from which the interest rate is applicable.
Term To	Specify the maximum term up to which the interest rate is applicable.

Field	Description
Rate %	Specify the interest rate applicable for the defined tier.

8. Click **Save**.

The Pricing model is successfully created and can be viewed using **View Pricing Model** Screen.

3.52.2 View Pricing Model

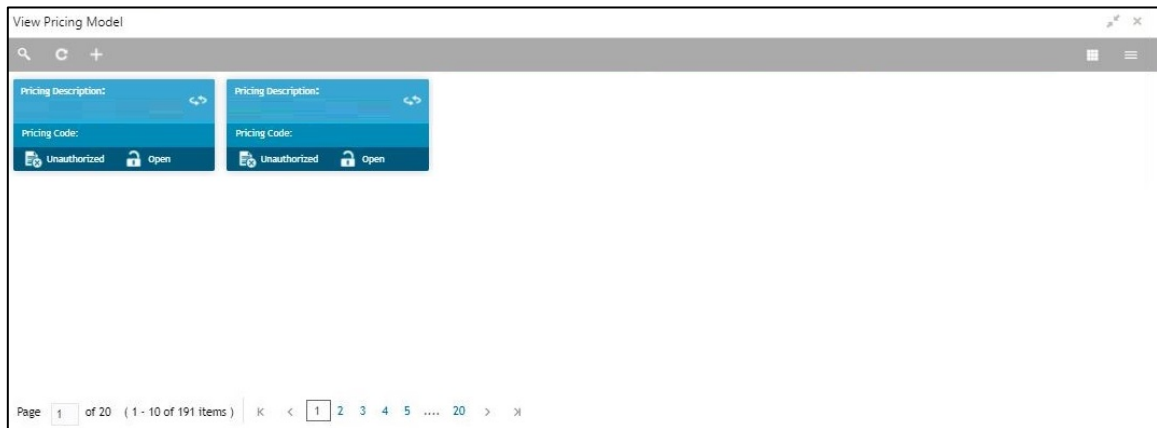
Using this screen, you can view the pricing model created using the **Create Pricing Model** screen. The status of the uploaded model is displayed as **Unauthorized** and **Open**. Once the checker authorizes the model, the status is updated to **Authorized** and **Open**.

To view created Pricing Model:

1. From **Home** screen, click **Core Maintenance**. Under **Core Maintenance** click, **Credit Decision**.
2. Under **Credit Decision**, click **Maintenance**.
3. Under **Maintenance**, click **Pricing**.
4. Under **Pricing**, click **View Pricing Model**.

→ The **View Pricing Model** screen appears.

Figure 218 : View Pricing Model



5. Click .

6. Specify the search criteria to fetch the required pricing model.


Figure 219 : View Pricing Model- Search Option



7. Click **Search**.

For more information on fields, refer to the field description table below.

Table 186 : View Pricing Model -Search Option- Field Description

Field	Description
The following fields are displayed, once you click  .	
Pricing Code	View the pricing code.
Pricing Description	View the description of the pricing model.
Authorization Status	Select the authorization status of the model. The options are: <ul style="list-style-type: none"> • Authorized • Unauthorized
Record Status	Select the record status of the model. The options are: <ul style="list-style-type: none"> • Open • Close

The following fields are displayed in the widget.

For more information on fields, refer to the field description table below.

Table 187 : View Pricing Model - Field Description

Field	Description
Pricing Code	Displays the pricing code.
Pricing Description	Displays the description of the pricing model.
Product Processor	Displays the product processor for which the pricing model is created.




8. Click this icon  to unlock, delete, authorize or view the created pricing model.
9. Click  unlock to modify the following fields. The fields are displayed in the **Pricing Model Maintenance** screen. The following fields are editable.
 - Pricing Description
 - Effective Date, before authorization
 - Expiry Date
 - Priority
 - Rule Code
 - Add new fact o rule to the selection criteria
 - Loan Amount From
 - Loan Amount To
 - Term From
 - Term To
 - Rate Type
 - Rate %

Figure 220 : Pricing Model Maintenance – Modify

For more information on fields, refer to the field description table below.

Table 188 : Pricing Model Maintenance - Modify- Field Description

Field	Description
Basic Details	
Pricing Code	View the pricing code for created pricing model.
Pricing Description	View the description of the pricing for the created pricing model. You can modify the same.
Effective Date	View the effective date of the pricing for the created pricing model.
Expiry Date	View the expiry date of the pricing for the created pricing model. You can modify the same.
Product Processor	View the product processor for the created pricing model.
Priority	View the priority of the pricing for the created pricing model. You can modify the same.
Selection Criteria	
Use Existing Rule	Indicates if the existing rule is linked.
Rules	
Rule Code	View the rule code of the created pricing model. You can modify the same.
	Click this icon to get the information about the rule.
Rule Name	View the rule name.

Field	Description
Create New Rule	View if new rule is linked to the pricing model. You can modify the same.
Rules	
Code	Specify the new rule code for the created pricing model.
Description	Specify the rule description for the created pricing model.
Expression Builder	
+ icon	This icon can add new expression.
Fact / Rules	View the fact/rules of the created pricing model.
Operator	View the comparison operator of the created pricing model.
Data Type	View the data type for the fact or rule of the created pricing model.
Output	View the output of the created pricing model.
Expression	View the expression updated in the expression builder of the created pricing model.
Pricing Definition	
Minimum Rate	View the minimum rate applicable for the defined pricing model. You can modify the same.
Maximum Rate	View the maximum rate applicable for the defined pricing model. You can modify the same.
Rate Type	View the rate type from the drop-down list. The options are: <ul style="list-style-type: none"> • Flat • Tiered You can modify the same.
Rate %	View the interest rate application for the defined pricing. This field appears once you select the Rate Type option as Flat . You can modify the same.
Below field appears if the rate type is updated as Tiered . The below columns are available as "Facts" in a drop down. You can modify the same.	

Field	Description
Loan Amount From	View the minimum range of loan amount to which the interest rate is applicable. You can modify the same.
Loan Amount To	View the maximum range of loan amount to which the interest rate is applicable. You can modify the same.
Loan Tenure From	View the minimum term from which the interest rate is applicable. You can modify the same.
Loan Tenure To	View the maximum term up to which the interest rate is applicable. You can modify the same.
Rate %	View the interest rate applicable for the defined tier.

10. Click **Save**, to update the modified fields.


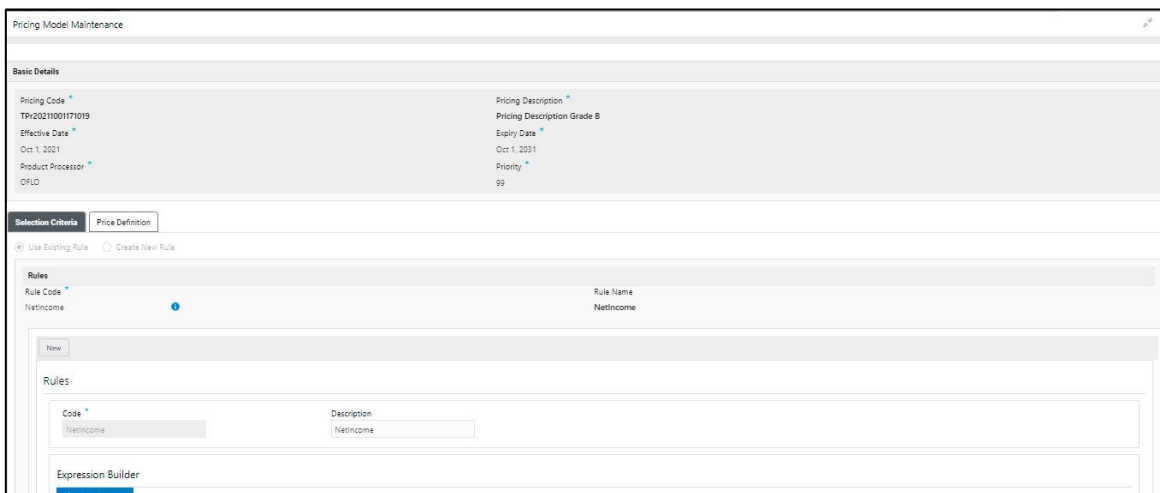
11. Click  to view the created pricing model. The fields are displayed in **Pricing Model Maintenance** screen.


Figure 221 : Pricing Model Maintenance – View



For more information on fields, refer to the field description table below.

Table 189 : Pricing Model Maintenance - View- Field Description

Field	Description
Basic Details	
Pricing Code	View the pricing code for created pricing model.
Pricing Description	View the description of the pricing for the created pricing model.
Effective Date	View the effective date of the pricing for the created pricing model.

Field	Description
Expiry Date	View the expiry date of the pricing for the created pricing model.
Product Processor	View the product processor for the created pricing model.
Priority	View the priority of the pricing for the created pricing model.
Selection Criteria	
Use Existing Rule	Indicates if the existing rule is linked.
Rules	
Rule Code	View the rule code of the created pricing model.
	Click this icon to get the information about the rule.
Rule Name	View the rule name for the created pricing model.
Create New Rule	View if new rule is linked to the pricing model.
Rules	
Code	View the new rule code for created pricing model.
Description	View the rule description for the created pricing model.
Expression Builder	
+ icon	This icon adds a new expression.
Fact / Rules	View the fact/rules of the created pricing model.
Operator	View the comparison operator of the created pricing model.
Data Type	View the data type for the fact or rule of the created pricing model.
Output	View the output of the created pricing model.
Expression	View the expression updated in the expression builder of the created pricing model.
Pricing Definition	
Minimum Rate	View the minimum rate applicable for the defined pricing model.
Maximum Rate	View the maximum rate applicable for the defined pricing model.
Rate Type	View the rate type from the drop-down list. The options are: <ul style="list-style-type: none"> • Flat • Tiered

Field	Description
Rate %	View the interest rate application for the defined pricing. This field appears once you select the Rate Type option as Flat .
Below field appears if the rate type is updated as Tiered . The below columns are available as "Facts" in a drop down.	
Loan Amount From	View the minimum range of loan amount to which the interest rate is applicable.
Loan Amount To	View the maximum range of loan amount to which the interest rate is applicable.
Loan Tenure From	View the minimum term from which the interest rate is applicable.
Loan Tenure To	View the maximum term up to which the interest rate is applicable.
Rate %	View the interest rate applicable for the defined tier.

3.53 Execution Summary

Execution summary enables user to view the decisions, credit score and pricing for the processed application.

3.53.1 View Execution Summary

Using this screen, you can view the execution summary based on the various filter options provided.

To view execution summary:

1. From **Home** screen, click **Core Maintenance**. Under Core Maintenance click, **Credit Decision**.
2. Under **Credit Decision** click, **Operations**.
3. Under **Operations**, click **Execution Summary**.
→ The **Execution Summary** screen appears.

Figure 222 : View Execution Summary

Product Processor	Request Type	Contract ID	Request Reference Number	Internal Reference Number	Execution Date	Mode	Status
OFLO	Score, Decision & Pricing	123	09yN6gnMD41P9yN6gnMD41Q9yN6gnMD41R9yN6gnMD41S...	CDS20211025152426597	Oct 25, 2021	ONLINE	FAILURE
OFLO			WhoXmqcMD41XhoXmqcMD41YhoXmqcMD41ZhoXmqcMD4...	CDS20211025152321123	Oct 25, 2021	ONLINE	ERROR
OFLO	Decision & Grade	123	OfNbcgWFD41PNbcgWFD41QfNbcgWFD41RNbcgWFD41Sf...	CDS20211025135544519	Oct 25, 2021	ONLINE	SUCCESS
OFLO	Decision & Grade	123	ISivHjyDD41JSivHjyDD41KSivHjyDD41LSivHjyDD41MSivHjyDD...	CDS20211025132220815	Oct 25, 2021	ONLINE	FAILURE
OFLO	Decision & Grade	123	oOXQ8uRzD41pOXQ8uRzD41qOXQ8uRzD41rOXQ8uRzD41sO...	CDS20211025123042142	Oct 25, 2021	ONLINE	FAILURE

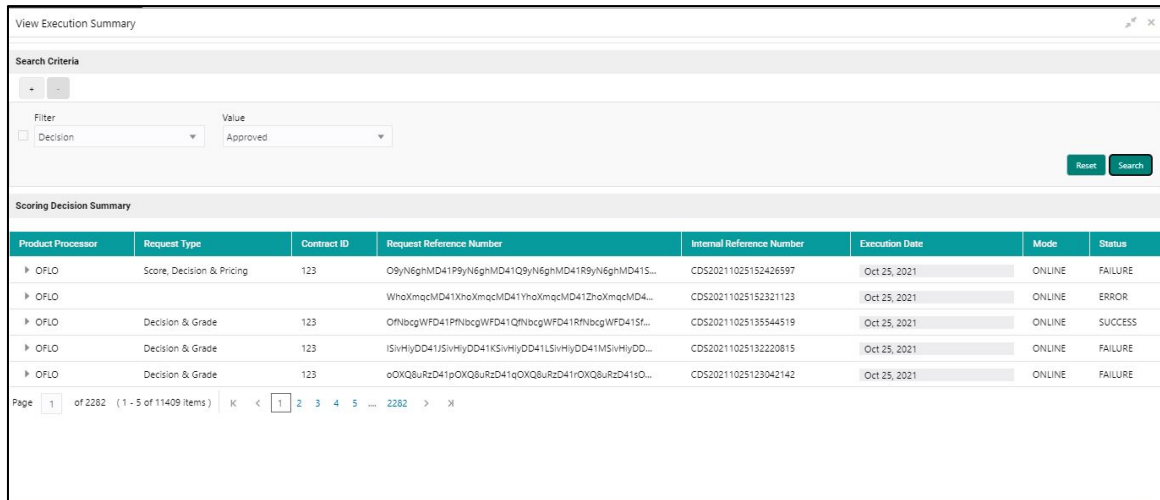
For more information on fields, refer to the field description table below.

Table 190 : Execution Summary Field Description

Field	Description
Search Criteria	
+ icon	Click this icon to add a new row.
- icon	Click this icon to delete a row, which is already added.
Filter	<p>Select the required option based on which you can search for the execution summary.</p> <p>The options are:</p> <ul style="list-style-type: none"> • Reference Number • Internal Reference Number • Decision • Batch/Online • Product Processor • Status • Request Type • Execution Date • Contract ID
Value	<p>Specify the required details or select an appropriate option for the selected filter option.</p> <p>This field appears once you select an option from the Filter list.</p>
From Date	<p>Select the start date of the period during which the execution summary is generated.</p> <p>This field appears if you select the filter option as Execution Date and value as Date Range.</p>
To Date	<p>Select the end date of the period during which the execution summary is generated.</p> <p>This field appears if you select the filter option as Execution Date and value as Date Range.</p>

- In the **Search Criteria** section, specify the details and click **Search**.
The search results appear showing a list of records based on the specified search criteria.
- Click **Reset**, to reset the search criteria.

Figure 223 : Execution Summary Search Option



For more information on fields, refer to the field description table below.

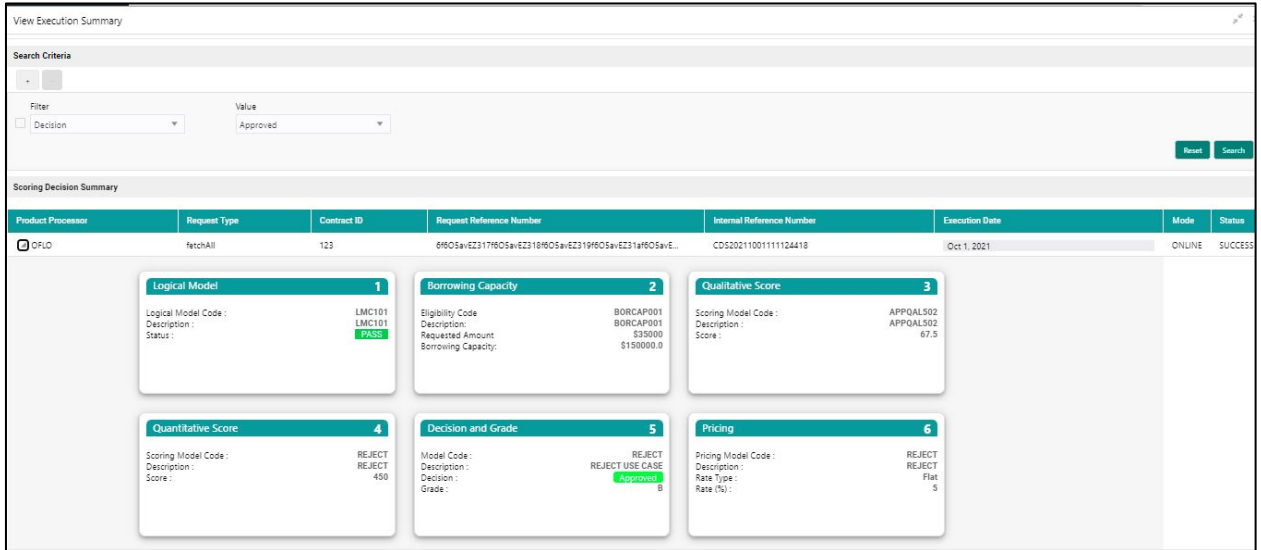
Table 191 : Execution Summary- Search option- Field Description

Field	Description
Scoring Decision Summary	
Product Processor	View the name of the product processor that sent the request.
Request Type	View the request type sent by product processor.
Contract ID	View the contract ID sent by the product processor.
Reference Number	View the request reference number sent by product processor.
Internal Reference Number	View the internal reference number of the application.
Execution Date	View the execution date of the processing application.
Mode	View the mode of execution of the application.
Status	View the status of the processed application.

- Click the icon corresponding to the required record to view the decision related details on each widget. Only one record is viewed at a time. If you need to view another record, you have to click on to close the already open record and then the next record can be viewed. The widgets are arranged in the flow in which the execution is done and is indicated by showing the sequence 1, 2, 3 numbers in the top right corner. The widgets are clickable on hover the color of the widget changes to indicate the widget is clickable.


- When the status of processed application is **Failure**, on click of the failure message is displayed in the step that is failed. For example, in case of **Qualitative Score Model** is not resolved, then the error message is displayed in the **Qualitative Score Model** widget and the previous widget will show the data which was processed. Where in if the logical processing fails, then the status **Fail** is shown in the **Logical Model** widget and reason for failure is displayed on click of the widget.

Figure 224 View Execution Summary



For more information on fields, refer to the field description table below.

Table 192 : View Execution Summary Field Description

Field	Description
The following widgets are displayed, once you click this  .	
Logical Model Widget	View the status of the logical model processed.
The following fields appear in Logical Model widget.	
Logical Model Code	
View the logical model code, resolved for credit decision.	
Description	View the logical model description, resolved for the credit decision.
Status	View the status of the logical model processed. <ul style="list-style-type: none"> For status Pass, the color is shown as Green. For status, Fail the color is shown as Red.
Borrowing Capacity Widget	
View the maximum lendable amount that can be given for an application.	
The following fields appear in Borrowing Capacity widget.	

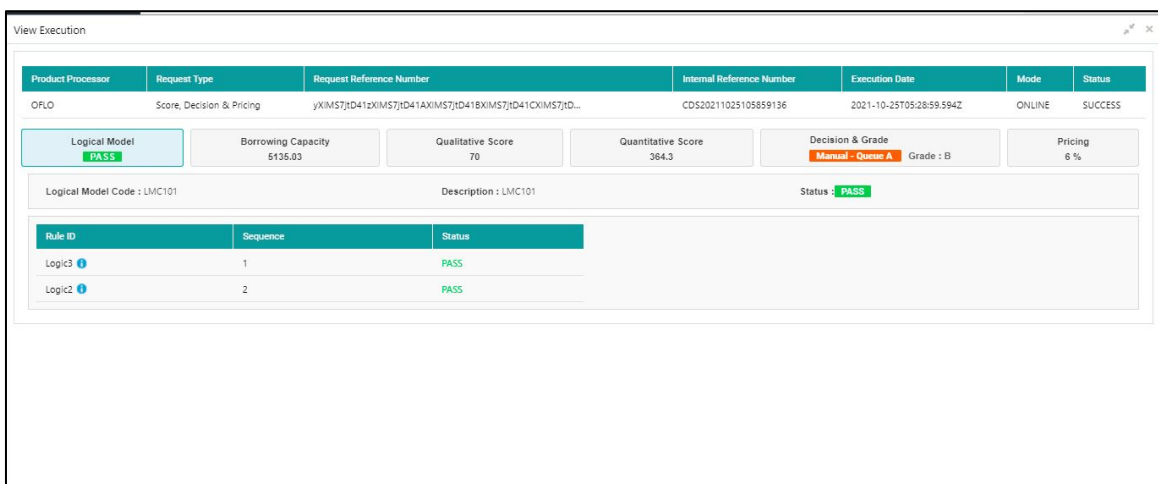
Field	Description
Eligibility Code	View the eligibility model code, resolved for calculating the borrowing capacity.
Description	View the eligibility model description, resolved for calculating the borrowing capacity.
Requested Amount	View the requested amount for the lending application.
Borrowing Capacity	View the maximum lendable amount that can be given for the application.
Qualitative Score Widget	
View the qualitative credit score, post credit decision of the application.	
The following fields appear in Qualitative Score widget.	
Scoring Model Code	View the scoring model code, resolved for credit decision. <ul style="list-style-type: none"> • When Is Application Decision Required is Yes, the application level decision scoring code is displayed. • When Is Application Decision Required is No, the applicant level decision scoring code is displayed. • When Is Application Decision Required is No, and Is Primary Applicant is No, the application level decision scoring code is displayed.
Description	View the scoring model description, resolved for credit decision.
Score	View the qualitative credit score post credit decision of the application. <ul style="list-style-type: none"> • When Is Application Decision Required is Yes, the system performs the aggregation, which can be minimum, maximum or average of all applicant's score. The aggregation performed is defined as rules and linked at the application level scoring model and this aggregated score is displayed. • When Is Application Decision Required is No, the score is displayed by resolving the applicant level scoring model. • When Is Application Decision Required is No, and Is Primary Applicant is No, the system performs the aggregation, which can be minimum, maximum or average of all applicant's score. The aggregation performed is defined as rule and linked at the application level scoring model and this aggregated score is displayed.

Field	Description
Quantitative Score Widget	
View the quantitative credit score post credit decision of the application.	
The following fields appear in Quantitative Score widget.	
Scoring Model Code	View the scoring model code, resolved for credit decision. <ul style="list-style-type: none"> When Is Application Decision Required is Yes, the application level decision scoring code is displayed. When Is Application Decision Required is No, the applicant level decision scoring code is displayed. When Is Application Decision Required is No, and Is Primary Applicant is No, the multi applicant level scoring code is displayed.
Description	View the scoring model description, resolved for credit decision.
Score	View the quantitative credit score, post credit decision of the application. <ul style="list-style-type: none"> When Is Application Decision Required is Yes, the system performs the aggregation, which can be minimum, maximum or average of all applicant's score. The aggregation performed is defined as rules and linked at the application level scoring model and this aggregated score is displayed. When Is Application Decision Required is No, the score is displayed by resolving the applicant level scoring model. When Is Application Decision Required is No, and Is Primary Applicant is No, score is displayed by resolving the multi applicant level scoring model.
Decision and Grade Widget	
View the credit decision and scoring grade, taken for the application.	
The following fields appear in Quantitative Score widget.	
Model Code	View the model code, resolved for credit decision and grade.
Description	View the model description, resolved for credit decision and grade.
Decision	View the credit decision, taken for the application.
Grade	View the scoring grade, post credit decision of the application.
Pricing Widget	
View the rate applicable post credit decision.	

Field	Description
The following fields appear in Quantitative Score widget.	
Pricing Model Code	View the pricing model code, resolved for credit decision.
Description	View the pricing model description, resolved for credit decision.
Rate Type	View the rate type applicable post credit decision.
Rate %	View the rate applicable post credit decision.

The following fields are displayed once you click the **Logical Model** widget. The details for the request which was clicked on the landing page is displayed.


Figure 225 : Logical Model Widget



For more information on fields, refer to the field description table below.

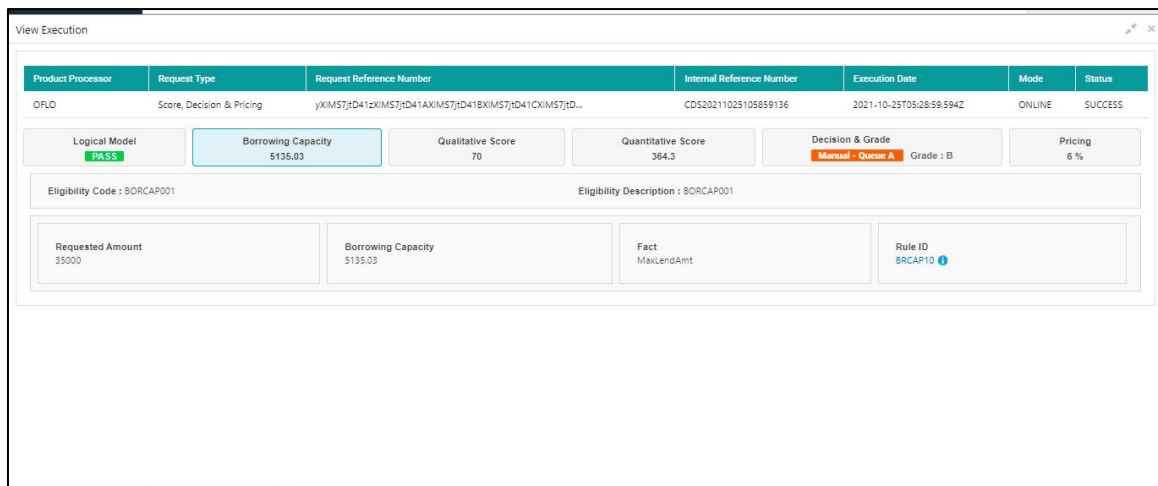
Table 193 : Logical Model Widget - Field Description

Field	Description
The following fields appears in Logical Model widget.	
Product Processor	View the name of the product processor that sent the request. This field will be shown on click of each widget.
Request Type	View the request type sent by the product processor. This field will be shown on click of each widget.
Contract ID	View the contract ID sent by the product processor. This field will be shown on click of each widget.
Request Reference Number	View the request reference number sent by product processor. This field will be shown on click of each widget.

Field	Description
Internal Reference Number	View the internal reference number of the application. This field will be shown on click of each widget.
Execution Date	View the execution date of the processing application. This field will be shown on click of each widget.
Mode	View the mode of execution of the application. This field will be shown on click of each widget.
<Logical Model Code>	View the logical model code that is resolved for credit decision.
Description	View the description of the logical model.
Status	View the status of logical model.
Rule ID	View the rule ID executed for logical model processing.
	Hover this icon to get the rule description.
Sequence	View the sequence in which the rules are executed for logical model processing.
Status	View the status of the rule execution. In case the status is failed, the reason for failure is displayed as Reason <> .

The following fields are displayed once you click the **Borrowing Capacity** widget.

Figure 226 : Borrowing Capacity Widget



The screenshot shows the 'View Execution' window with the following data:


Product Processor	Request Type	Request Reference Number	Internal Reference Number	Execution Date	Mode	Status
ORLO	Score, Decision & Pricing	yXIM57jD41xXIM57jD41AXIM57jD41BXIM57jD41CXIM57jD...	CD520211025105859136	2021-10-25T09:28:59.594Z	ONLINE	SUCCESS

Below the table, the 'Borrowing Capacity' widget is highlighted, showing a value of 5135.03. Other visible widgets include:

- Logical Model: **PASS**
- Qualitative Score: 70
- Quantitative Score: 364.3
- Decision & Grade: **Manual - Queue A**, Grade : B
- Pricing: 6%
- Requested Amount: 35000
- Fact: MaxLendAmt
- Rule ID: BRCAP10 (with information icon)

For more information on fields, refer to the field description table below.

Table 194 : Borrowing Capacity Widget - Field Description

Field	Description
The following fields appears in Borrowing Capacity widget.	
<Eligibility Code>	View the eligibility code resolved for calculating the borrowing capacity.
Eligibility Description	View the eligibility description resolved for calculating the borrowing capacity.
Requested Amount	View the requested amount for the lending application.
Borrowing Capacity	View the maximum lendable amount that can be given for an application.
Fact	View the fact using which the maximum lendable amount was calculated.
Rule ID	View the rule ID executed for calculating the maximum lendable amount.
	Hover this icon to get the rule description.

The following fields are displayed once you click the **Qualitative Score** widget.

Figure 227 : Qualitative Score Widget – Bar Graph View

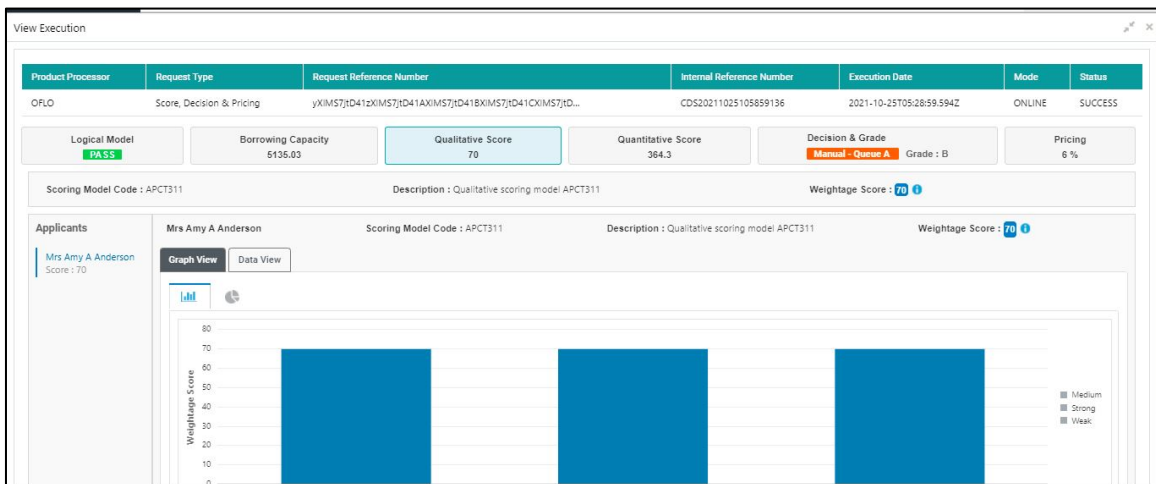


Figure 228 : Qualitative Score Widget – Pie Graph View

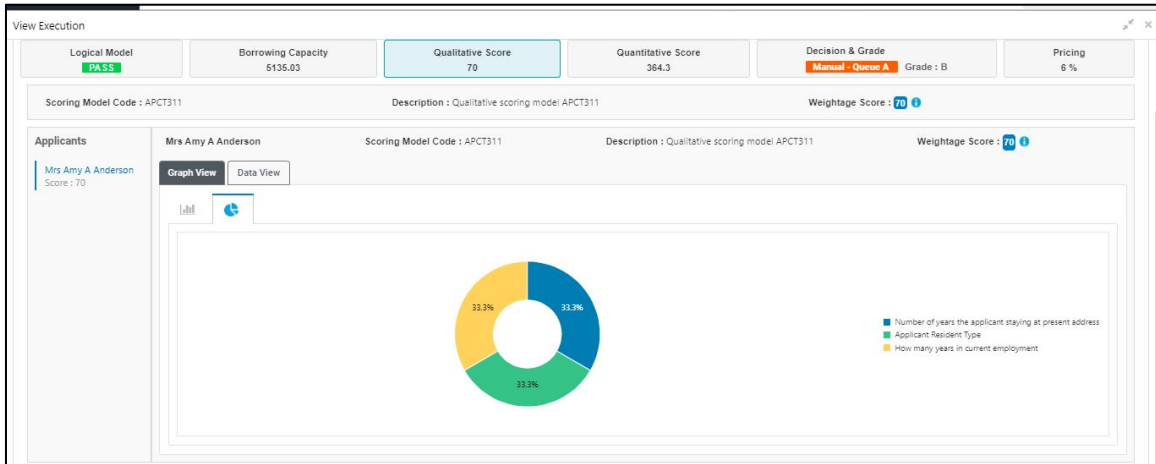
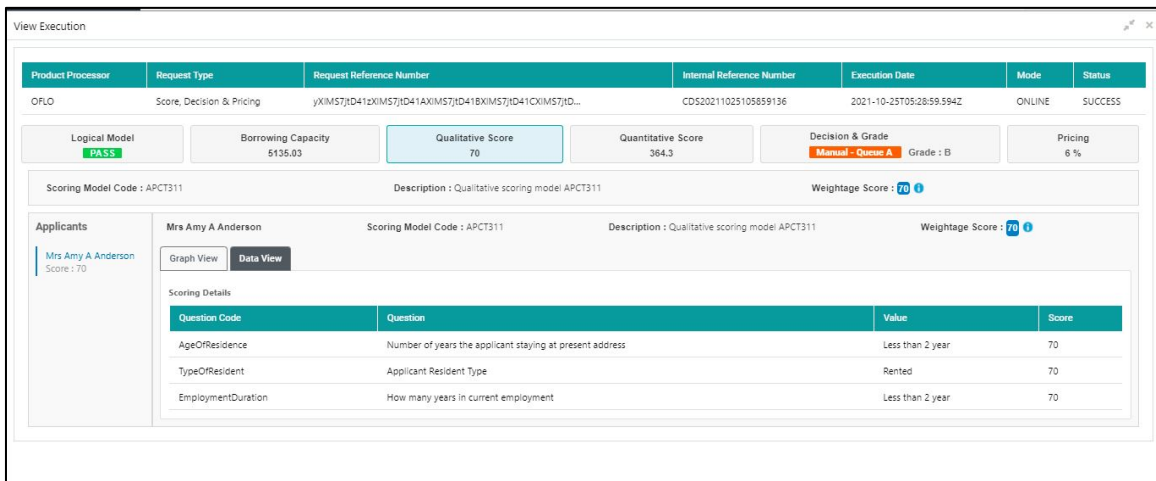




Figure 229 : Qualitative Score Widget – Data View



For more information on fields, refer to the field description table below.

Table 195 : Qualitative Score Widget - Field Description

Field	Description
The following fields appears in Qualitative Score widget.	
<Scoring Model Code>	View the scoring model code resolved for credit decision. <ul style="list-style-type: none"> When Is Application Decision Required is Yes, the application level decision scoring code is displayed. When Is Application Decision Required is No, the applicant level decision scoring code is displayed. When Is Application Decision Required is No, and Is Primary Applicant is No, the application level scoring code is displayed.
Description	View the scoring model description resolved for credit decision.

Field	Description
Weightage Score/Application Score	<p>View the qualitative credit score post credit decision of the application.</p> <ul style="list-style-type: none"> When Is Application Decision Required is Yes, the field name is displayed as Application Score. The system performs the aggregation, which can be minimum, maximum or average of all applicant's score. The aggregation performed is defined as rules and linked at the application level scoring model and this aggregated score is displayed. When Is Application Decision Required is No, the field name is displayed as Weightage Score. The score is displayed by resolving the applicant level scoring model. When Is Application Decision Required is No, and Is Primary Applicant is No, the field name is displayed as Application Score. The system performs the aggregation, which can be minimum, maximum or average of all applicant's score. The aggregation performed is defined as rules and linked at the application level scoring model and this aggregated score is displayed.
	Hover this icon to get the information about the formula for calculation of score.
Applicant details are shown at the left panel.	
<Applicant Name>	View the applicant names present in the application.
<Score>	<p>View the weighted credit score post credit decision of the application.</p> <p>The score is calculated for each applicant by resolving the applicant level scoring model.</p>
Applicant details are shown at the left panel.	
<Applicant Name>	View the applicant names present in the application.
Scoring Model Code	View the applicant level scoring model code resolved for credit decision.
Description	View the applicant scoring model description.
Weightage Score	View the weighted credit score post credit decision of the application.
	Hover this icon to get the information about the formula for calculation of score.

Field	Description
Graph View	<p>Two graphical views are available.</p> <ul style="list-style-type: none"> • Bar Graphs <p>The details are shown as a graphical representation as bar charts.</p> <ul style="list-style-type: none"> ○ List of question ID on the X-axis ○ Score on the Y-axis. <p>Based on the evaluation of the category, the questions are shown in a particular color based on the maintenance done in the lookups screen.</p> <ul style="list-style-type: none"> • Pie Charts <p>The details are shown as a graphical representation as pie charts.</p> <p>The calculation logic for the question is $(\text{Score of the question} / \text{Weightage score of the applicant}) * 100$. The pie is shown from a pool of colors available/defined in the code.</p>
Data View	The scoring details are shown as mentioned below in data view.
Scoring Details	
Question Code	View the question code resolved for the applicant in the scoring model.
Question	View the question description resolved for the applicant in the scoring model.
Value	View the response received for the question in the payload.
Score	<p>View the score calculated for the question based on the range and the response.</p> <p>In case any question was optional for which the response was not received, NA will be displayed.</p>

The following fields are displayed once you click the **Quantitative Score** widget.

Figure 230 : Quantitative Score Widget – Bar Graph View

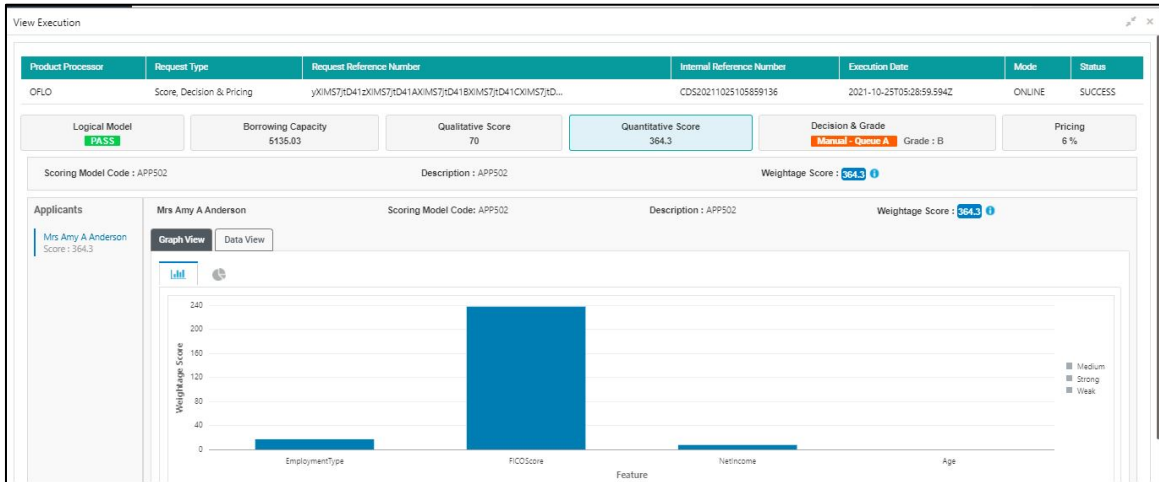


Figure 231 : Quantitative Score Widget – Pie Graph View

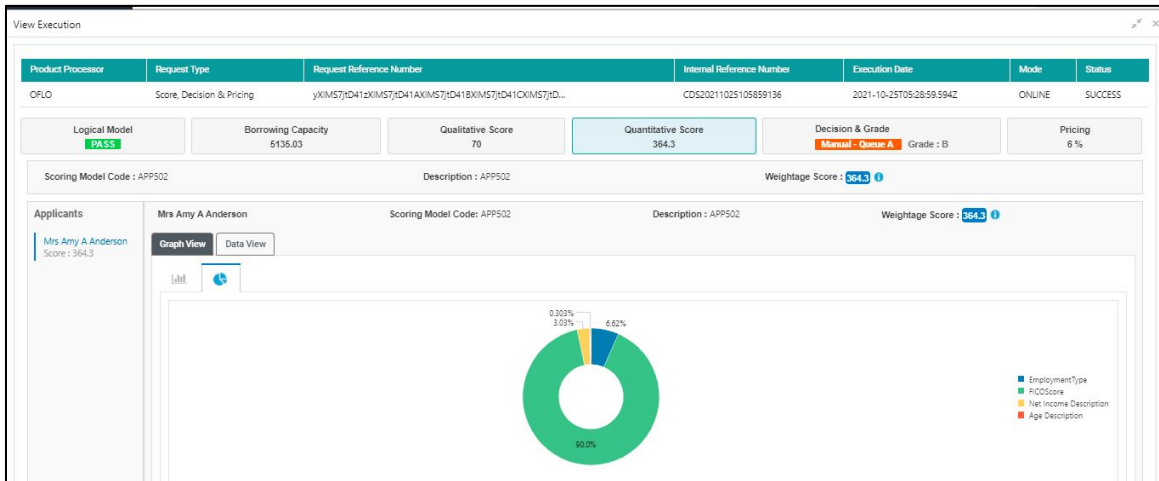
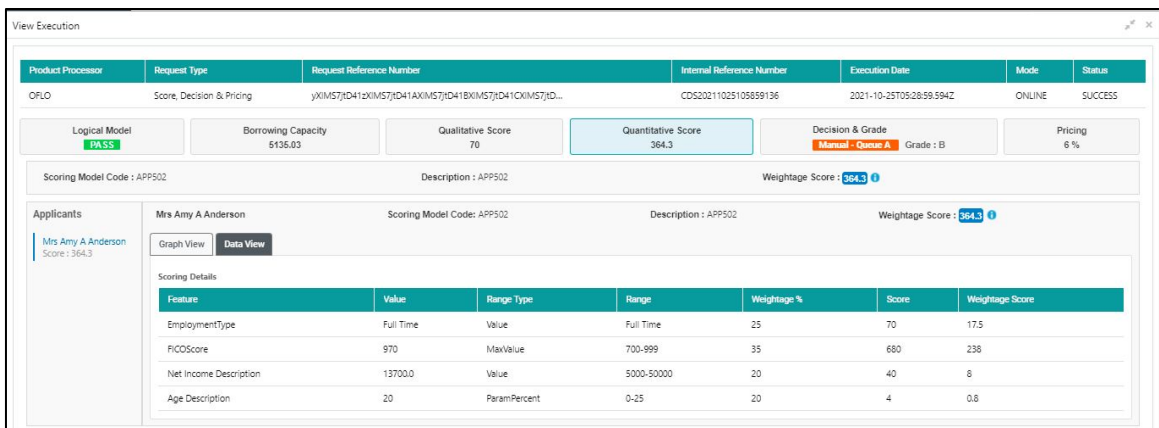




Figure 232 : Quantitative Score Widget – Data View



For more information on fields, refer to the field description table below.

Table 196 : Quantitative Score Widget - Field Description

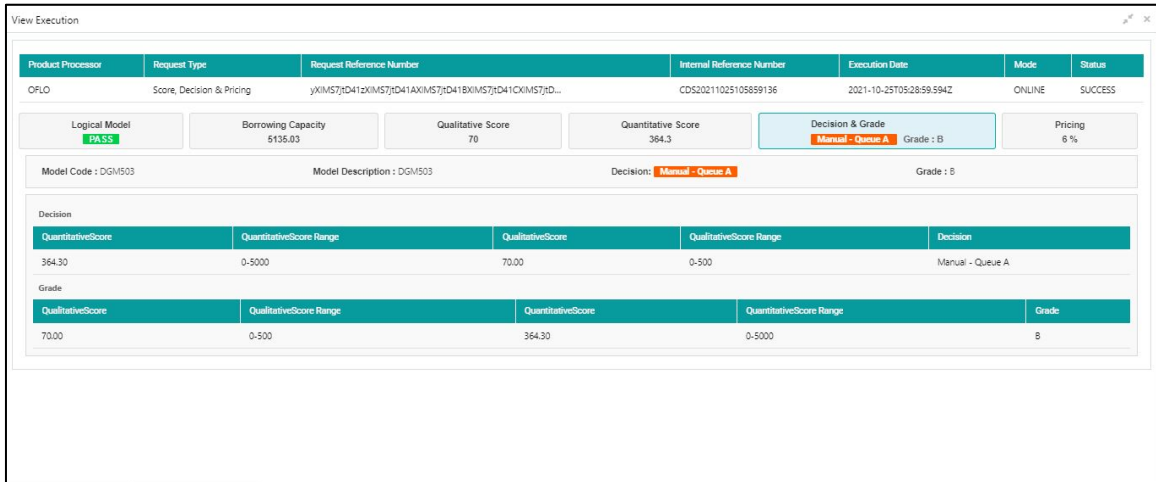
Field	Description
The following fields appears in Quantitative Score widget.	
<Scoring Model Code>	View the scoring model code resolved for credit decision. <ul style="list-style-type: none"> When Is Application Decision Required is Yes, the application level decision scoring code is displayed. When Is Application Decision Required is No, the applicant level decision scoring code is displayed. When Is Application Decision Required is No, and Is Primary Applicant is No, the multi applicant level scoring code is displayed.
Description	View the scoring model description resolved for credit decision.
Weightage Score	View the weightage score post credit decision of the application. <ul style="list-style-type: none"> When Is Application Decision Required is Yes, the system performs the aggregation, which can be minimum, maximum or average of all applicant's score. The aggregation performed is defined as rules and linked at the application level scoring model and this aggregated score is displayed. When Is Application Decision Required is No, the score is displayed by resolving the applicant level scoring model. When Is Application Decision Required is No, and Is Primary Applicant is No, the score is displayed by resolving multi applicant level scoring model.
	Hover this icon to get the information about the formula for calculation of score.
Applicant details are shown at the left panel.	
<Applicant Name>	View the applicant names present in the application.
<Score>	View the weighted credit score post credit decision of the application. The score is calculated for each applicant by resolving the applicant level scoring model. In case of multi applicant scenario, weightage score per applicant is not shown.
Below details are shown at the right panel.	
<Applicant Name>	View the applicant names present in the application.

Field	Description
Scoring Model Code	<p>View the applicant level scoring model code resolved for credit decision.</p> <p>Applicant level scoring model is applicable for below case.</p> <ul style="list-style-type: none"> • If Is Application Decision required is Yes • If Is Application Decision Required is No, and Is Primary Applicant is Yes <p>Multi applicant level scoring model is applicable in the below case.</p> <ul style="list-style-type: none"> • If Is Application Decision Required is No, and Is Primary Applicant is No
Description	View the applicant scoring model description.
Weightage Score	<p>View the weighted credit score post credit decision of the application.</p> <p>The weightage score is calculated for each applicant by resolving the applicant scoring model.</p> <p>In case of multi applicant scoring model, for both the applicant the same score is shown since the score is not calculated per applicant.</p>
	Hover this icon to get the information about the formula for calculation of score.

Field	Description
Graph View	<p>Two graphical views are available.</p> <ul style="list-style-type: none"> • Bar Graphs <p>The details are shown as a graphical representation as bar charts.</p> <ul style="list-style-type: none"> ○ List of features on the X-axis ○ Weightage Score on the Y-axis. <p>Based on the evaluation of the category, the feature are shown in a particular color based on the maintenance done in the lookups screen.</p> <p>Note: For Multi Applicant scoring model all graphs is shown in the same color, as category evaluation is not applicable.</p> <ul style="list-style-type: none"> • Pie Charts <p>The details are shown as a graphical representation as pie charts.</p> <p>The calculation logic for the feature is (Weighted score of the feature/ Weightage score of the applicant)*100. The pie is shown from a pool of colors available/defined in the code.</p>
Data View	The scoring details are shown as mentioned below in data view.
Scoring Details	
Feature	View the features resolved for the applicant in the scoring model.
Value	View the value of the feature.
Range Type	View the range type for the feature.
Range	View the range resolved for the feature value for score resolution.
Weightage %	View the weightage defined for the feature in the scoring model.
Score	View the score calculated for the feature based on the range and feature value.
Weightage Score	View the weighed credit score post credit decision of the application.

The following fields are displayed once you click the **Decision and Grade** widget.

Figure 233 : Decision and Grade Widget



For more information on fields, refer to the field description table below.

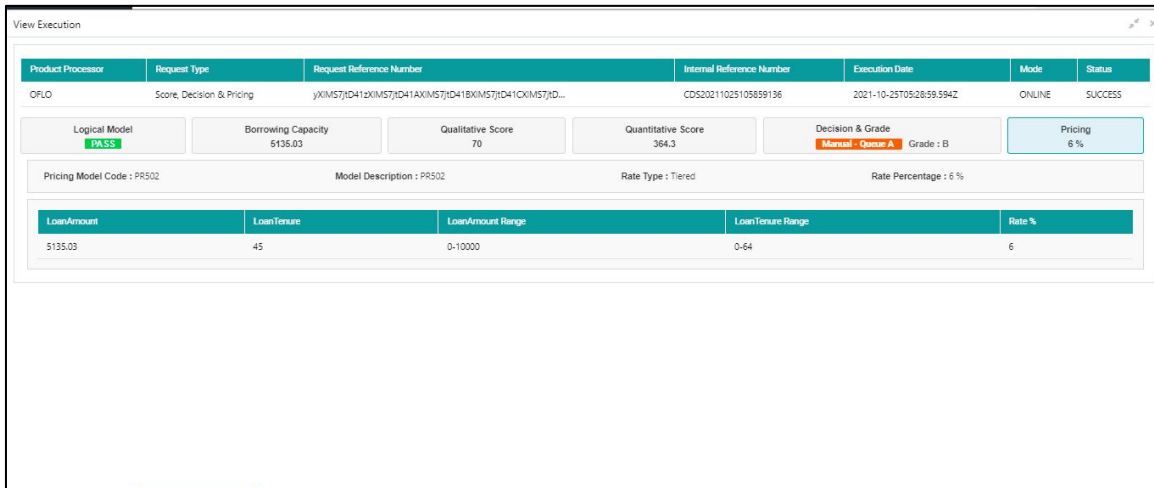
Table 197 : Decision and Grade Widget - Field Description

Field	Description
The following fields appears in Decision and Grade widget.	
<Model Code>	View the model code resolved for credit decision and grade.
Model Description	View the model description resolved for credit decision and grade.
Decision	View the credit decision taken for the application.
Grade	View the scoring grade post credit decision of the application.
Decision	
Quantitative Score	View the quantitative score calculated for the application.
Quantitative Score Range	View the range resolved for the quantitative score value for score resolution.
Qualitative Score	View the qualitative score calculated for the application.
Qualitative Score Range	View the range resolved for the qualitative score value for score resolution.
Decision	View the credit decision taken for the application.
Grade	
Qualitative Score	View the qualitative score calculated for the application.
Qualitative Score Range	View the range resolved for the qualitative score value for score resolution.
Quantitative Score	View the quantitative score calculated for the application.

Field	Description
Quantitative Score Range	View the range resolved for the quantitative score value for score resolution.
Grade	View the scoring grade taken for the application.

The following fields are displayed once you click the **Pricing** widget.

Figure 234 : Pricing Widget



For more information on fields, refer to the field description table below.

Table 198 : Pricing Widget - Field Description

Field	Description
The following fields appears in Pricing widget.	
<Pricing Model Code>	View the pricing model code resolved for credit decision.
Model Description	View the pricing model description resolved for credit decision.
Rate Type	View the rate type applicable post credit decision.
Rate Percentage	View the rate applicable post credit decision.
Loan Amount	View the eligible loan amount for the application.
Loan Tenure	View the loan tenure for the application.
Loan Amount Range	View the range resolved for the loan amount value.
Loan Tenure Range	View the range resolved for the loan tenure value.
Rate %	View the rate applicable post credit decision.

4 NLP Framework

This section of the user guide is designed to help you quickly get acquainted with the Machine Learning, Natural Language Processing (NLP) framework.

Pre-requisites

Specify **User Id** and **Password**, and login to **Home screen**.

This section contains the following topics:

- [4.1 Toolkit](#)
- [4.2 Operation](#)
- [4.3 3P Service Integration](#)

4.1 Toolkit

The Toolkit is used to design and train NLP/Named Entity Recognition (NER) Model(s).

This section contains following subsections:

- [4.1.1 Use Case Definition](#)
 - [4.1.1.1 Use Case Definition Summary](#)
 - [4.1.1.2 Use Case Definition Maintenance](#)
- [4.1.2 Annotator](#)
- [4.1.3 Model Training](#)
- [4.1.4 Model Management](#)
 - [4.1.4.1 Model Management Summary](#)
 - [4.1.4.2 Model Management Maintenance](#)

4.1.1 Use Case Definition

Use cases are defined by the business domain. The information that is required to be extracted from documents are driven by business consideration against the context of the use case being defined.

Tags/entities are required for annotating or tagging of information in the source document in order to create training files for a use case model training. These tags or entities will always be driven by business considerations for a particular use case.

The use case definition maintenance screen allows the user to define use case(s) and maintain specific list of tags for the use case.

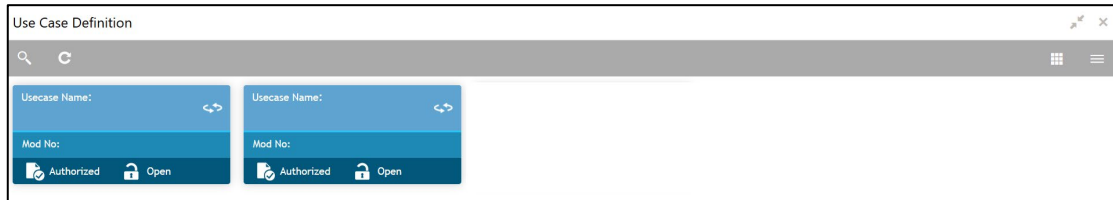
4.1.1.1 Use Case Definition Summary

The summary screen displays the list of defined use cases. To process this screen, perform the following steps:

1. From **Home** screen, click **Machine Learning**. Under **Machine Learning**, click **NLP Toolkit**.
2. Under **NLP Toolkit**, click **Use Case Definition**.

→ The **Use Case Definition** screen is displayed.

Figure 235: Use Case Definition



For more information on fields, refer to the field description table below.

Table 199: Use Case Definition – Field Description

Field	Description
Usecase Name	Displays the name of the use case
Mod No	Displays the modification number
Authorized Status	Displays the Authorized or Unauthorized status
Record Status	Displays the status of the record.

4.1.1.2 Use Case Definition Maintenance

The maintenance screen allows you to define use cases and maintain entities/tags for the use case.

Figure 236: Use Case Definition Maintenance

The screenshot shows the 'Tag Maintenance' interface. At the top, there are buttons for 'New', 'Unlock', 'Delete', and 'Authorize'. Below this is the 'Business Tag Maintenance' section with input fields for 'Use Case Name', 'Description', and 'Mod No', along with a 'Straight Through Processing' radio button (Yes/No). The main area contains a table with columns: Tag Display Sequence, Tag Screen Display, Tag Name, Annotation Tag, and Default Value. The table lists several tags, with some marked with an asterisk to indicate they are mandatory. A pagination bar at the bottom shows 'Page 1 (1-5 of at least 30 items)' and an 'Audit' button.

Tag Display Sequence	Tag Screen Display	Tag Name	Annotation Tag	Default Value
3	Invoice Due Date	invoiceDueDate	Y	
15	*Buyer Division Code	buyerDivisionCode	*	Y
8	Currency	currency	Y	
20	*External Branch BIC	externalBranchBIC	*	Y
10	Tax Amount	taxAmount	Y	

On **Tag Maintenance** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

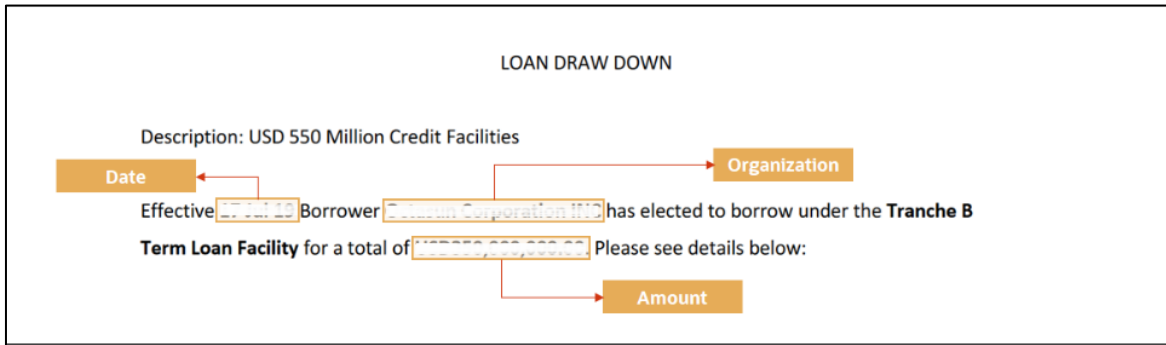
Table 200: Tag Maintenance – Field Description

Field	Description
Use Case Name	Unique use case name. It gets populated on Save, from the last folder name from the "Training Corpus Path (DOC)"
Description	Use Case Description
Mod No	Automatic Modification Number
Straight Through Processing	yes = Unattended / No = Attended
Use Case Tags/Entities	Specifies the use case tags entities.
Tag Display Sequence	The sequence in which the tags get displayed.
Tag Screen Display	Business Name of the Tag
Tag Name	Technical Name of the Tag
Annotation Tag	To identify tags to be used in Training
Default Value	Default value for tags not used for training

4.1.2 Annotator

Annotation is the process of identifying information within a document content and tagging them as a specific type of information. Of course, each use case defined, will have their own relevant maintained list of tags/entities, which will be used to annotate source documents for a use case.

Figure 237: Annotator

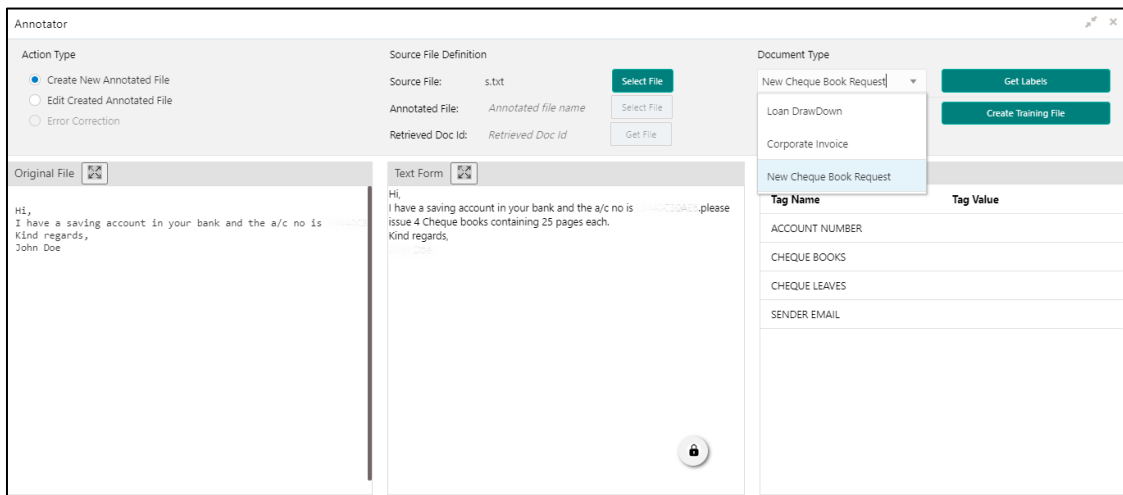


Annotator helps you to perform the annotations on a source document for a use case. To process this screen, perform the following steps:

1. From **Home** screen, click **Machine Learning**. Under **Machine Learning**, click **NLP Toolkit**.
2. Under **NLP Toolkit**, click **Annotator**.

→ The **Annotator** screen is displayed.

Figure 238: Annotator



3. On **Annotator** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 201: Annotator – Field Description

Field	Description
Action Type	Select the action type. Available options are as following: <ul style="list-style-type: none"> • Create New Annotated File • Edit Created Annotated File
Source File Definition	Select the source document from local windows explorer based on the Action Type .
Document Type	Displays the list of all the use cases defined under use case definition.
Get Labels	For the selected Document Type the maintained Tags/entities are displayed in the below Annotations section.
Create Annotated File	Once annotations of all the Tags are completed, this will perform two outcomes, <ul style="list-style-type: none"> • Create annotated text file in the defined NER train path as maintained under use case definition • Create text file in the defined DOC train path as maintained under use case definition

Follow the below mentioned steps to annotate the source files:

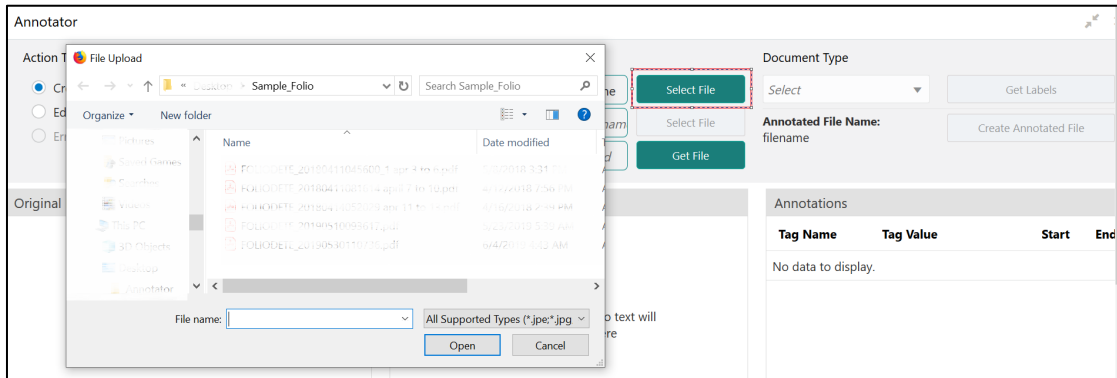
1. Select action type as “Create New Annotated File”.

Figure 239: Action Type

The screenshot shows the Annotator application interface. The 'Action Type' section has three radio buttons: 'Create New Annotated File' (selected and highlighted with a red box), 'Edit Created Annotated File', and 'Error Correction'. The 'Source File Definition' section includes fields for 'Source File' (with a 'Select File' button), 'Annotated File' (with a 'Select File' button), and 'Retrieved Doc Id' (with a 'Get File' button). The 'Document Type' section has a dropdown menu labeled 'Select' and a 'Get Labels' button. Below these sections are three main areas: 'Original File' (with the text 'Document will appear here'), 'Text Form' (with the text 'Document converted to text will be displayed here'), and 'Annotations' (with a table header: 'Tag Name', 'Tag Value', 'Start', 'End' and the text 'No data to display.').

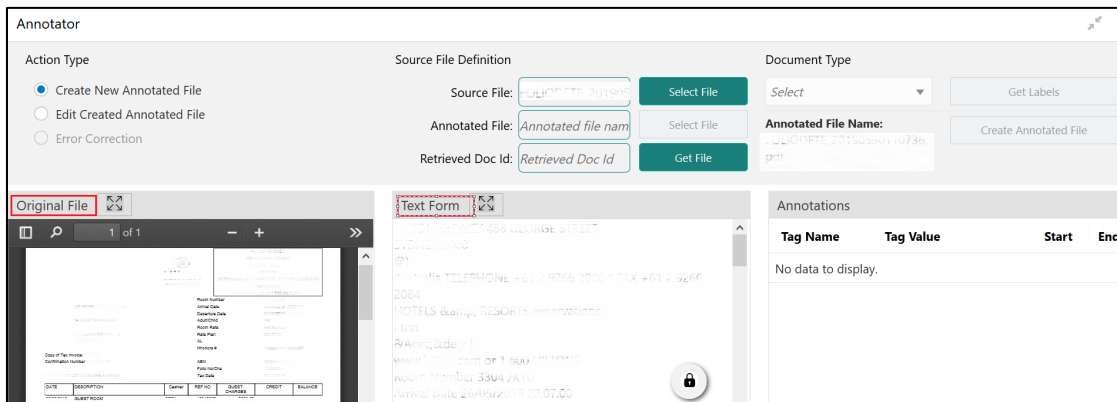
- Click **Select File**. It will open the windows explorer. Navigate and select the source document to be annotated.

Figure 240: File Upload



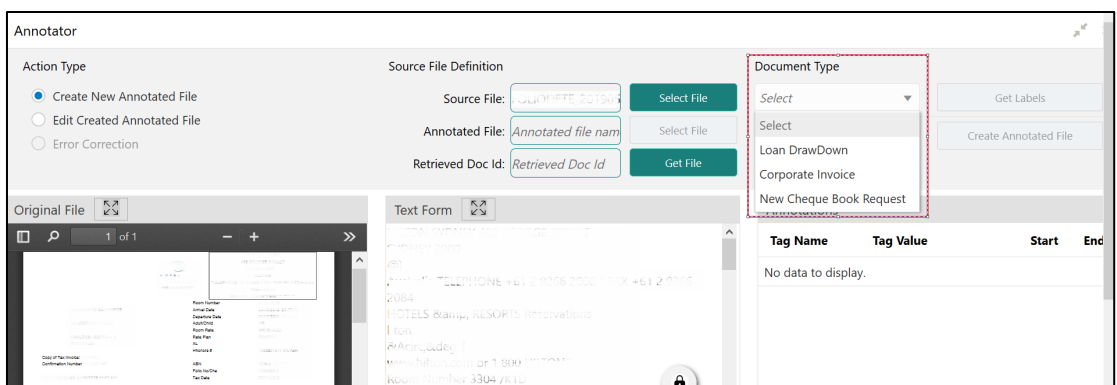
- The source document will be displayed in the “Original File” section and the text version of the document will be displayed in the “Text Form” section below:

Figure 241: Text Form



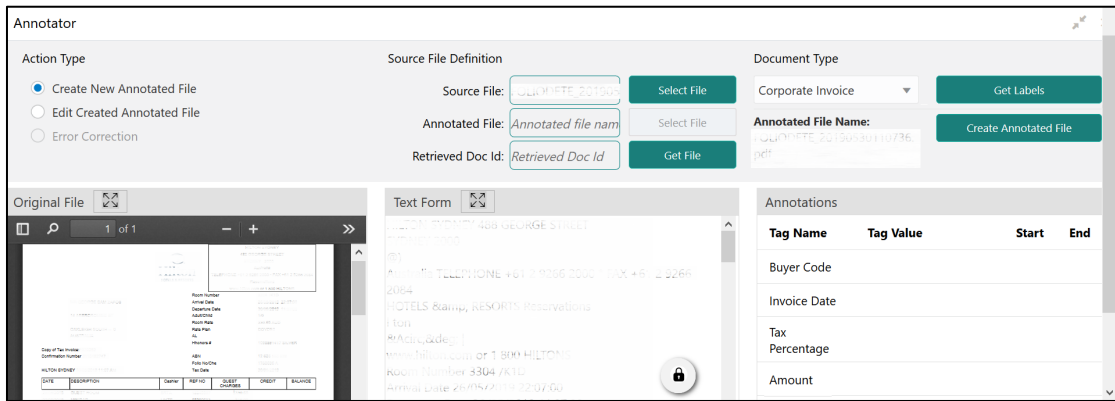
- Chose the “Document Type”.

Figure 242: Document Type



- Click **Get Labels**. It will load all the maintained Tags for the Document Type.

Figure 243: Tags



- Identify and select information within the “Text Form” section of the document and RIGHT-CLICK to display the list of tags and select the relevant tag.

Figure 244: List of Tags

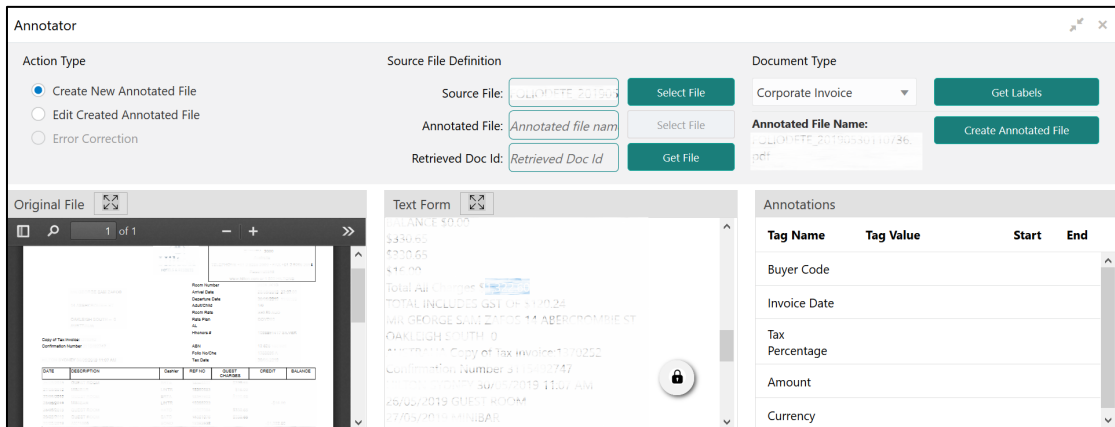
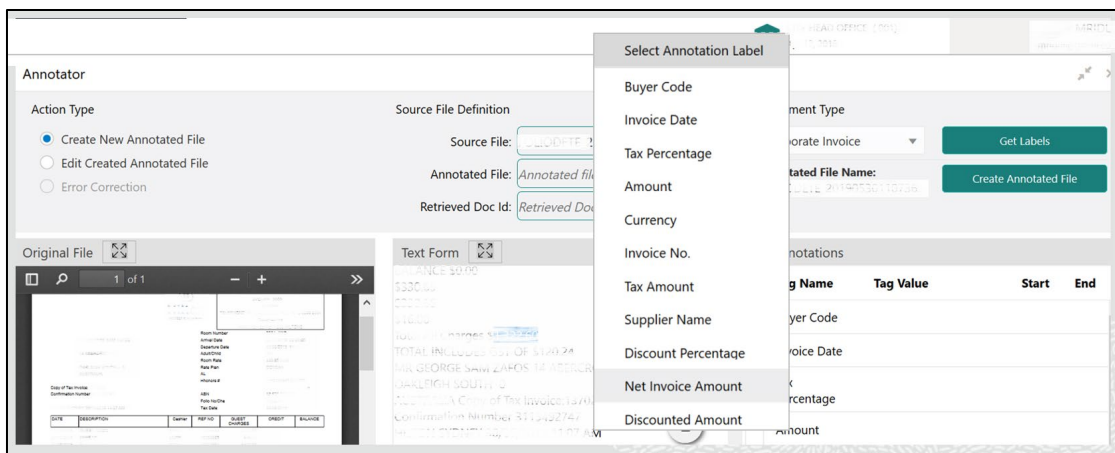
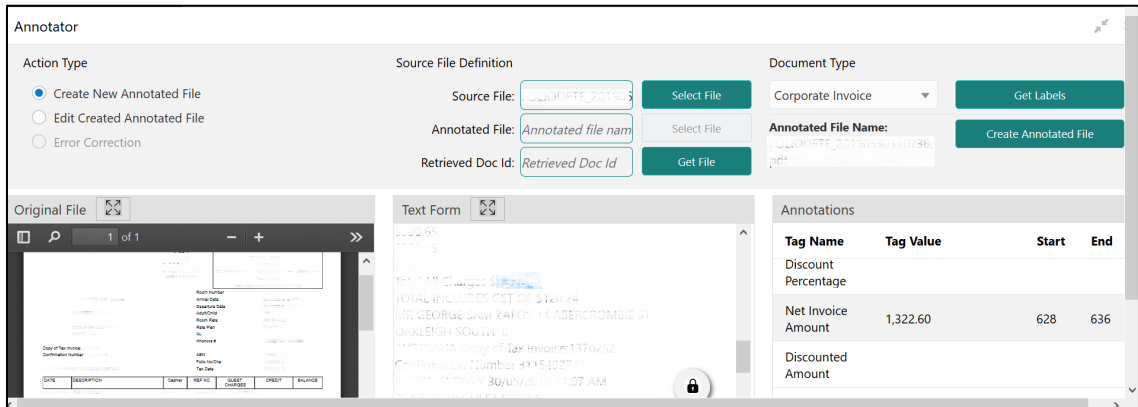


Figure 245: Select Annotation Label



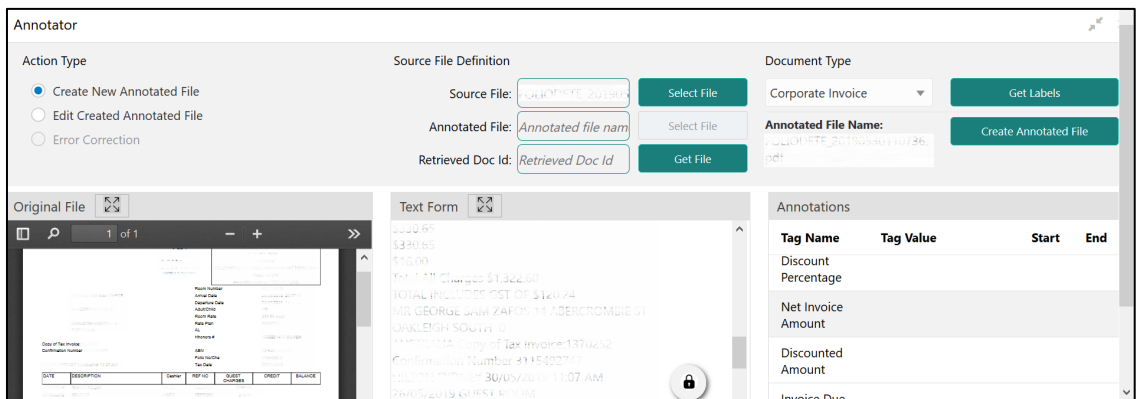
- The selected Tag and the information will get displayed in section “Annotations” under Tag Name and Tag Value.

Figure 246: Annotations



- Repeat steps (6) and (7) for all the displayed tags as per availability of information in the source document.
- Select a Tag Name from the “Annotations” section and RIGHT- CLICK to delete the Tag Value.

Figure 247: Tag Value



- After all the tags are assigned relevant information click **Create Annotated File** to create the annotated file and end the process.

4.1.3 Model Training

Model training is done on the annotated training corpus. The annotated training corpus is a collection of annotated training files created using the annotator.

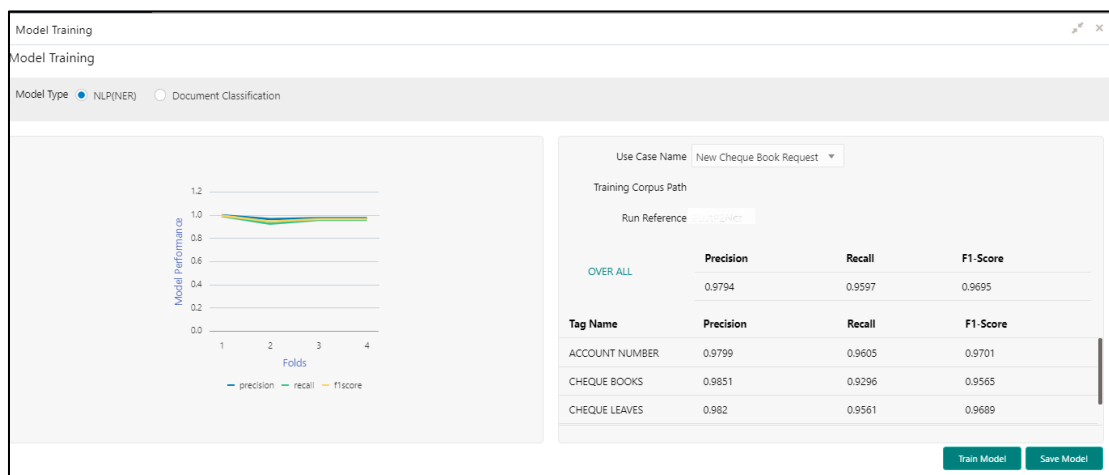
Model training is iterative and is carried out over increasing corpus size depending on the model parameters.

Each defined use case will have its own training corpus available in the path set up in the use case definition. To process this screen, perform the following steps:

1. From **Home** screen, click **Machine Learning**. Under **Machine Learning**, click **NLP Toolkit**.
2. Under **NLP Toolkit**, click **Model Training**.

→ The **Model Training** screen is displayed.

Figure 248: Model Training



Training NER Models:

3. Select the Model Type as NLP(NER).
4. Choose the use case name.
5. Click **Train Model**.

Each model for a use case is identified by a unique run reference.

Training Document Classifier Model:

6. Select the Model Type as Document Classification.
7. Click **Train Model**.

If you find the model parameters acceptable, you may want to save the model by clicking **Model Save**.

The alternative is to add more annotated training files for the use case and repeat model training, till satisfactory parameters are achieved.

4.1.4 Model Management

All the run reference of models saved from model training for a use case can be seen here. For each model run reference, you can view the parameters for the model as well as individual tag/entities

You may choose the active model run reference to be used as part of business processing.

This section contains following subsections:

- [4.1.4.1 Model Management Summary](#)
- [4.1.4.2 Model Management Maintenance](#)

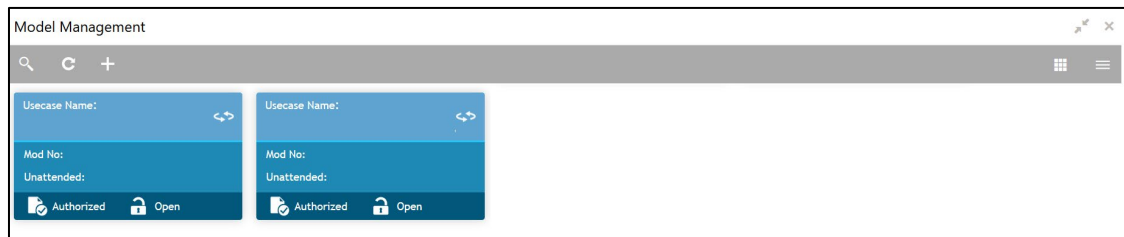
4.1.4.1 Model Management Summary

The summary screen displays the list of use case models. To process this screen, perform the following steps:

1. From **Home** screen, click **Machine Learning**. Under **Machine Learning**, click **NLP Toolkit**.
2. Under **NLP Toolkit**, click **Model Management**.

→ The **Model Management** screen is displayed.

Figure 249: Model Management Summary



For more information on fields, refer to the field description table below.

Table 202: Model Management Summary – Field Description

Field	Description
Use Case Name	Displays the name of the Use Case.
Mod No	Displays the number of modifications.
Authorized Status	Displays the status as Authorized or Unauthorized.
Record Status	Displays the record status as Open or Closed.

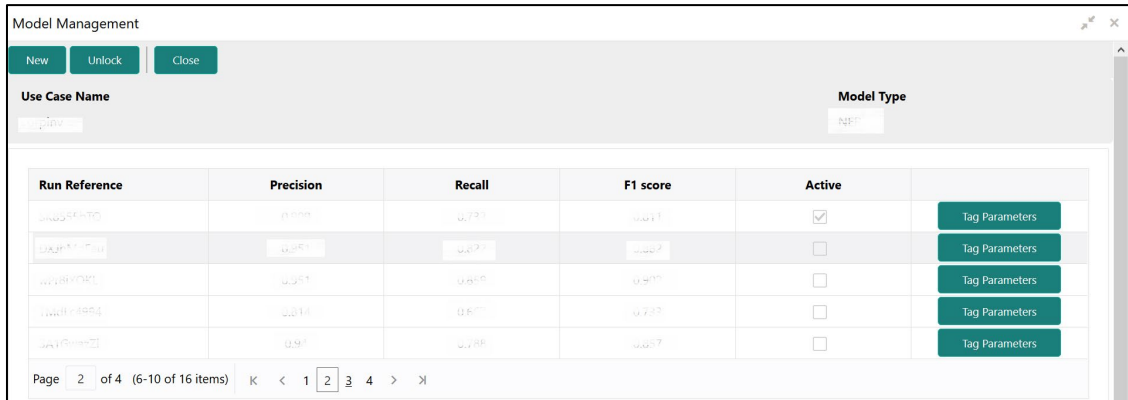
4.1.4.2 Model Management Maintenance

This is where you may unlock and choose the active model run reference to be used as part of business processing. To process this screen, perform the following steps:

1. From **Home** screen, click **Machine Learning**. Under **Machine Learning**, click **NLP Toolkit**.
2. Under **NLP Toolkit**, click **Model Management**.

→ The **Model Management** screen is displayed.

Figure 250: Model Management Maintenance



Run Reference	Precision	Recall	F1 score	Active	Tag Parameters
UNLOCKED	0.999	0.731	0.861	<input checked="" type="checkbox"/>	Tag Parameters
UNLOCKED	0.999	0.731	0.861	<input type="checkbox"/>	Tag Parameters
UNLOCKED	0.999	0.731	0.861	<input type="checkbox"/>	Tag Parameters
UNLOCKED	0.999	0.731	0.861	<input type="checkbox"/>	Tag Parameters
UNLOCKED	0.999	0.731	0.861	<input type="checkbox"/>	Tag Parameters

3. On **Model Management** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 203: Model Management Maintenance – Field Description

Field	Description
Use Case Name	Displays the name of the Use Case.
Model Type	Displays the NER or Classification type of Model.
Run Reference	Unique Model Version Identifier.
Precision	Value between 0 to 1. Closer to 1 is better.
Recall	Value between 0 to 1. Closer to 1 is better.
F1 Score	Value between 0 to 1. Closer to 1 is better.
Active	The model run reference that is currently active.

For each model run reference you could view the individual tag parameters.

Figure 251: Tag Parameters

The screenshot shows the 'Model Management' application. A 'Tag Parameters Detail' dialog box is open, displaying a table of performance metrics for various tags. The background interface shows a list of use cases with 'Tag Parameters' buttons next to each.

Model Name	Model Type	Run Reference
supplierName	NER	HW2019
buyerCode		
Invoice Due Date		
Invoice Number		

Tag Name	Precision	Recall	F1 Score
supplierName	0.954	0.932	0.943
buyerCode	0.975	0.886	0.929
Invoice Due Date	1	0	0
Invoice Number	0.073	0.010	0.000

At this stage you have defined a new use case with the tags/entities to be recognized by the model and trained and exported the use case model to be used by business.

4.2 Operation

This is where the trained models are consumed for business processing.

This section contains following subsections:

- [4.2.1 Document Upload](#)
- [4.2.2 Transaction Log](#)

4.2.1 Document Upload

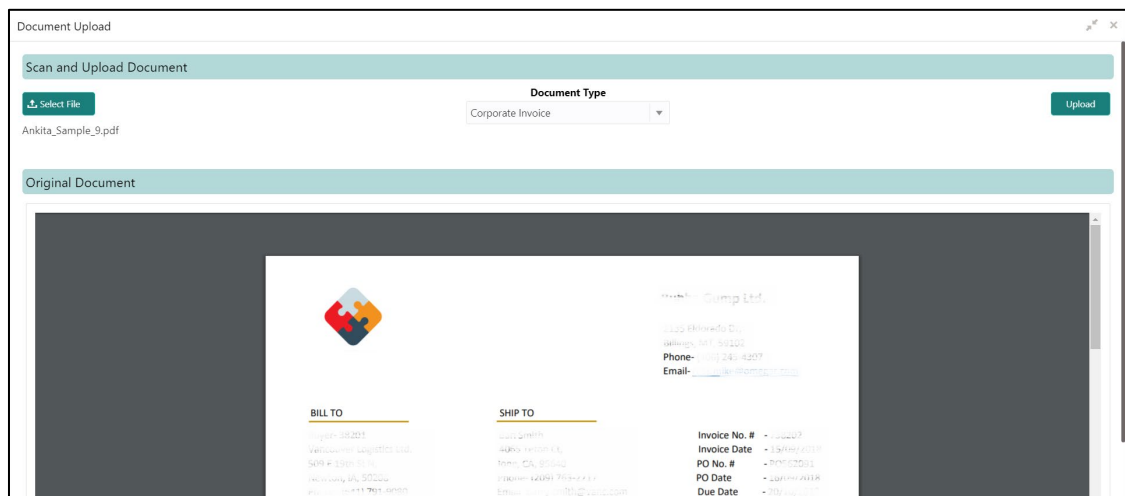
This is the screen where you upload the source document which is consumed by the NLP model and defined tags/entities are recognized.

The information that is extracted by the model is seamlessly used in further business processing. To process this screen, perform the following steps:

1. From **Home** screen, click **Machine Learning**. Under **Machine Learning**, click **Operation**.
2. Under **Operation**, click **Document Upload**.

→ The **Document Upload** screen is displayed.

Figure 252: Document Upload



3. Click **Select File** to select the source document.
4. Chose the Document Type from the pick list.
5. Click **Upload** to initiate business process.

4.2.2 Transaction Log

This is the screen where you can see all the uploaded transactions that has been interpreted by the NLP models.

You can filter the displayed transactions based on the following:

- Document Type
- Status

To process this screen, perform the following steps:

1. From **Home** screen, click **Machine Learning**. Under **Machine Learning**, click **Operation**.
2. Under **Operation**, click **Transaction Log**.

→ The **Transaction Log** screen is displayed.

Figure 253: Transaction Log

Document Id	Document Type	Model Ref	Processing Date	Status	Failure Reason	Train. Req'd	Tag Value(s)
92	chqr-New Cheque Book Request	chqrNewReq	2020/02/03	PROCESSED		N	...
91			2020/02/03	ERROR	Unable to complete Intent Processing	Y	...
90	chqr-New Cheque Book Request	chqrNewReq	2020/02/03	PROCESSED		N	...
89	chqr-New Cheque Book Request	chqrNewReq	2020/02/03	PROCESSED		N	...
88	chqr-New Cheque Book Request	chqrNewReq	2020/02/03	PROCESSED		N	...
87	chqr-New Cheque Book Request	chqrNewReq	2020/02/03	PROCESSED		N	...

3. On **Transaction Log** screen, specify the fields. For more information on fields, refer to the field description table below.

Table 204: Transaction Log – Field Description

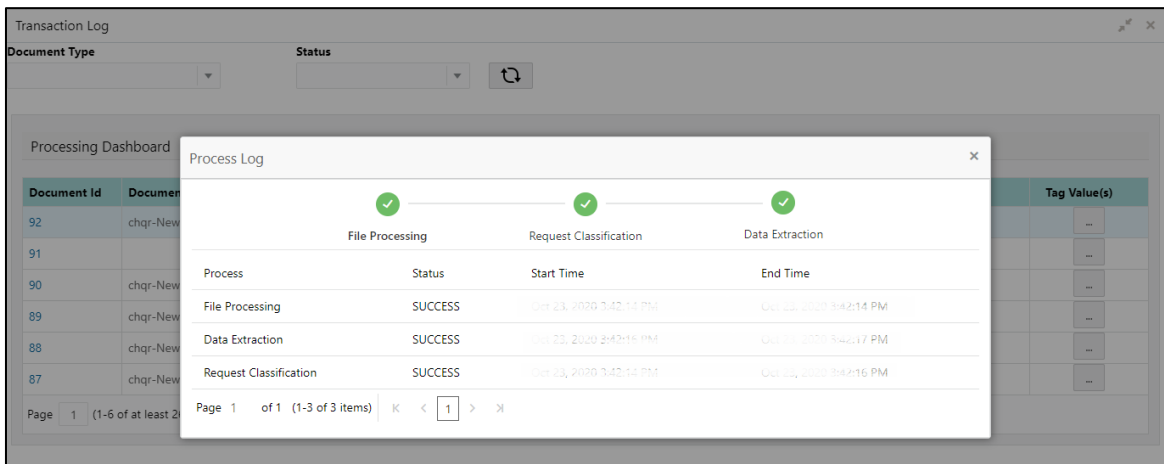
Field	Description
Document Type	Select the document type.
Status	Select the status.
Document Id	Displays the Document Management System Unique Identifier.
Document Type	Displays the document type - Use Case Definition.
Model Ref	Displays the Unique Model Version Identifier.
Processing Date	Displays the document processed date.

Field	Description
Status	Displays the status of the transaction.
Failure Reason	Displays the reason for failed status.
Train. Reqcd	Displays train required status.
Tag Values	Displays the tag values for the processed transactions and allow the correction for transactions with errors.

Execution Flow

Click on document reference ID to view details and execution flow.

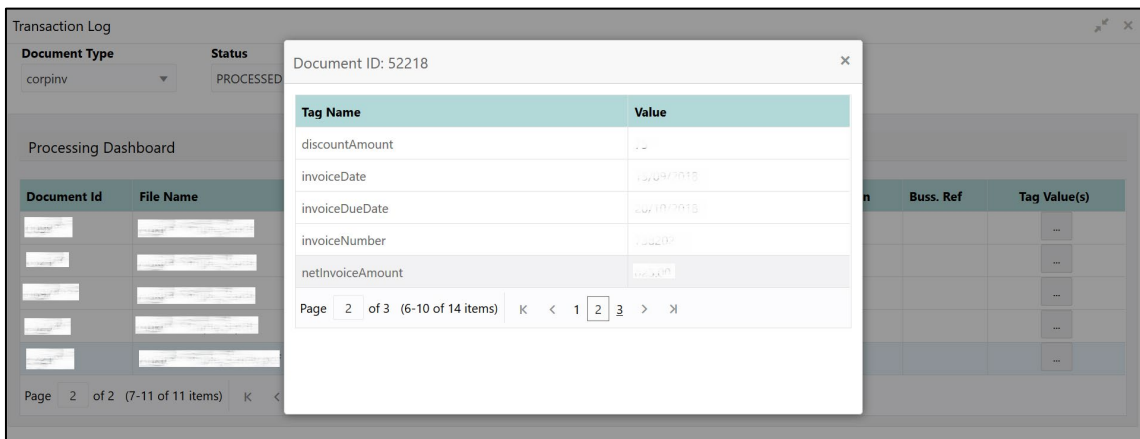
Figure 254: Execution Flow



Processed Status

For any Document Type, you can filter on the ‘Processed’ status and view the model tag values used to process the transactions. The displayed information reflects both the original retrieved values by the model from the document and also the values which have been corrected by human intervention.

Figure 255: Processed Status



Error Status

For any Document Type, you can filter on the 'Error' status and view all the failed transactions.

Figure 256: Error Status

Transaction Log

Document Type: Status:

Processing Dashboard

Document Id	File Name	Document Type	Model Ref	Processing Date	Status	Failure Reason	Buss. Ref	Tag Value(s)
1001	REP_15596557601001.pdf	Reference Loan DriveDown	Loan123456	01/01/2014	ERROR	Error in parsing business process		--
1002	REP_15596557601002.pdf	Reference Loan DriveDown	Loan123456	01/01/2014	ERROR	Error in parsing business process		--

Page 1 of 1 (1-2 of 2 items) < 1 >

For the failed transactions, you can click on the Tag Value(s) to invoke the toolkit annotator in the error correction mode to create a new annotated training file for future model training.

Figure 257: Annotator

Annotator

Action Type: Create New Annotated File Edit Created Annotated File Error Correction

Source File Definition: Source File: Select File Annotated File: Select File Retrieved Doc Id: Get File

Document Type: Corporate Invoice Get Labels Annotated File Name: Create Annotated File

Original File:

Text Form:

```

    Mylent Ltd
    Invoice No: 80KP2619
    Invoice Date: 11/03/2014
    K-Tech Inc Subject, PO No: 94K57031
    Altoona, PA 15501 PO Date: 27/03/2014
    Phone (814) 7213060 Due Date: 16/10/2014
    Email: herts@igv.com
    Bill To: Buyer
    Mylent Corp, 114 4655 Ileton Ct,
    Anytown 4505 Ileton Ct,
    Stroudsburg, PA 18080
    
```

Annotations:

Tag Name	Tag Value	Start	End
Buyer Code	18300	220	235
Invoice Date			
Tax Percentage			
Amount			

4.3 3P Service Integration

Any model execution or training service(s) built using any 3P NLP library can be integrated in the NLP framework.

The only requirement being the REST services must confirm to the payload definition detailed in the following section.

Building model training and execution services using other 3P NLP libraries would involve consulting effort.

This section contains following subsections:

- [4.3.1 Classification Training Service](#)
- [4.3.2 NER Training Service](#)
- [4.3.3 Classification Processing Service](#)
- [4.3.4 NER Processing Service](#)
- [4.3.5 Service Mapping](#)
- [4.3.6 Business Service Mapping](#)

4.3.1 Classification Training Service

This section elaborates the payload details for document classification model training service.

Input Payload

Table 205: Input Payload

name	in	type	required	Remarks
trainCorpusPath	formData	string	true	Training Corpus path
modelType	formData	File	true	Type of model being trained
runRef	formData	string	true	Unique running reference number

- name: " **trainCorpusPath**"
in: "formData"
type: string
required: true
- name: " **modelType**"
in: "formData"
type: string
value for document classification training: "docClassification"
required: true
- name: " **runRef** "
in: "formData"
type: string
required: true

Output Payload:

```

{
  "data": {
    "timeTaken": 0,
    "corpusSize": 0,
    "precision": 0,
    "recall": 0,
    "f1score": 0,
    "model_fold_performances": null,
    "tag_performances": null
  }
}

```

Output payload data model definition:

```

ModelTrainParamsDTO:
type: object
properties:
  data:
type: object
properties:
  timeTaken:
type: number
  corpusSize:
type: number
  precision:
type: number
  recall:
type: number
  f1score:
type: number
  model_fold_performances:
type: array
  items:
  $ref: "#/definitions/ModelFoldPerfromancesDTO"
  tag_performances:
type: array
  items:
  $ref: "#/definitions/MltbTagPerfromancesDTO"

```

4.3.2 NER Training Service

This section elaborates the payload details for NER model training service.

Input Payload

Table 206: Input Payload

name	in	type	required	Remarks
trainCorpusPath	formData	string	true	Training Corpus path
modelType	formData	File	true	Type of model being trained
runRef	formData	string	true	Unique running reference number

- name: " **trainCorpusPath**"
 - in: "formData"
 - type: string
 - required: true
- name: " **modelType**"
 - in: "formData"
 - type: string
 - value for NER model training: "nlpNer "
 - required: true
- name: " **runRef** "
 - in: "formData"
 - type: string
 - required: true

Output Payload

```
{
  "data": {
    "timeTaken": 0,
    "corpusSize": 0,
    "precision": 0,
    "recall": 0,
    "f1score": 0,
    "model_fold_performances": [
      {
        "fold_no": 0,
        "eval_metric": "string",
        "value": 0
      }
    ],
    "tag_performances": [
      {
        "name": "string",
        "precision": 0,
        "recall": 0,
        "f1score": 0
      }
    ]
  }
}
```

Output Payload data model definition

ModelTrainParamsDTO:

```

type: object
properties:
  data:
    type: object
    properties:
      timeTaken:
        type: number
      corpusSize:
        type: number
      precision:
        type: number
      recall:
        type: number
      f1score:
        type: number
      model_fold_performances:
        type: array
        items:
          $ref: "#/definitions/ModelFoldPerfromancesDTO"
      tag_performances:
        type: array
        items:
          $ref: "#/definitions/MltbTagPerfromancesDTO"

```

ModelFoldPerfromancesDTO:

```

type: object
properties:
  fold_no:
    type: number
  eval_metric:
    type: string
  value:
    type: number

```

MltbTagPerfromancesDTO:

```

type: object
properties:
  name:
    type: string
  precision:
    type: number
  recall:
    type: number
  f1score:
    type: number

```

4.3.3 Classification Processing Service

This section elaborates the payload details for document classification model processing service.

Input Payload:

Table 207: Input Payload

name	in	type	required	Remarks
modelPath	formData	string	true	The path to the classification model
file	formData	File	true	The text file which must be classified

- name: "**modelPath**"
 - in: "formData"
 - type: string
 - required: true
- name: "**file**"
 - in: "formData"
 - type: file
 - required: true

Output Payload

```
{
  "data": {
    "docType": "string"
  }
}
```

Output Payload data model definition

```
MltbNlpDTO:
  type: object
  properties:
    data:
      properties:
        docType:
          type: string
```

4.3.4 NER Processing Service

This section elaborates the payload details for NER model processing service

Input Payload:

Table 208: Input Payload

name	in	type	required	Remarks
modelPath	formData	string	true	The path to the NER model
file	formData	File	true	The text file which must be classified

- name: "modelPath"
in: "formData"
type: string
required: true
- name: "file"
in: "formData"
type: file
required: true

Output Payload

```
{
  "data": {
    "keyvals": [
      {
        "tagName": "string",
        "value": "string",
        "start_index": 0,
        "end_index": 0
      }
    ]
  }
}
```

Output Payload data model definition:

```
MltbNerKeyValsDTO:
  type: object
  properties:
    data:
      properties:
        keyvals:
          type: array
          items:
            $ref: '#/definitions/MltbNerKeyValExtractedObjDTO'
```

MltbNerKeyValExtractedObjDTO:

```

type: object
properties:
  tagName:
    type: string
    value:
      type: string
      start_index:
        type: number
      end_index:
        type: number

```

4.3.5 Service Mapping

After creation of the model services, entries must be made into the table CMC_TM_ML_SERVICE_DEFN to enable the NLP framework to use these services.

Existing use case:

Update the highlighted column in table CMC_TM_ML_SERVICE_DEFN with the new service API.

Table 209: Existing Use Case

Column name	Remarks	Model Training	Model Processing
ID	Unique ID		
USECASE_NAME	Use Case Name	<existing use case>	<existing use case>
DESCRIPTION	Use Case Description		
SERVICE_TYPE	Service Type	Training	Processing
SERVICE_DEFN	Mapped Service API	<New Service API>	<New Service API>
METHOD_TYPE	Method Type	POST	POST
APP_ID	Sub Domain ID		
RECORD_STAT	Record Status	O	O
AUTH_STAT	Authorized Status	A	A
MOD_NO	Modification Number	1	1
ONCE_AUTH	Once Authorized	Y	Y
MAKER_ID	Maker Name	SYSTEM	SYSTEM
MAKER_DT_STAMP	Maker Date stamp	<Application Date>	<Application Date>
CHECKER_ID	Authorizer Name	SYSTEM	SYSTEM
CHECKER_DT_STAMP	Authorizer Date stamp	<Application Date>	<Application Date>

New use case

Insert a new record into the table CMC_TM_ML_SERVICE_DEFN.

Table 210: New Use Case

Column name	Description	Remarks for Data	
ID	Unique ID	Ensure a Unique ID	
USECASE_NAME	Use Case Name	Must be one of the usecase_name from the table CMC_TM_ML_NER_TAG_MAS	
DESCRIPTION	Use Case Description		
SERVICE_TYPE	Service Type	'Training'	Use this value for model Training Service
		'Processing'	Use this value for model execution Service
		'Business'	Use this value for business Service
SERVICE_DEFN	Mapped Service API	<The newly created 3P NLP service API>	
METHOD_TYPE	Method Type	POST	
APP_ID	Sub Domain ID	NULL	
RECORD_STAT	Record Status	O	
AUTH_STAT	Authorized Status	A	
MOD_NO	Modification Number	1	
ONCE_AUTH	Once Authorized	Y	
MAKER_ID	Maker Name	SYSTEM	
MAKER_DT_STAMP	Maker Date stamp	<Application Date>	
CHECKER_ID	Authorizer Name	SYSTEM	
CHECKER_DT_STAMP	Authorizer Date stamp	<Application Date>	

4.3.6 Business Service Mapping

If straight through processing is enabled in use case definition, then entries must be made into the table CMC_TM_ML_BUS_SERVICE_DEFN to enable the NLP framework to call the Business Service.

Insert a new record into the table CMC_TM_ML_BUS_SERVICE_DEFN for each use-case with straight through processing enabled.

Table 211: For Each Use Case

Column name	Description	Remarks for Data	
ID	Unique ID	Ensure a Unique ID	
USECASE_NAME	Use Case Name	Must be one of the usecase_name from the table CMC_TM_ML_NER_TAG_MAS	
DESCRIPTION	Use Case Description		
SERVICE_TYPE	Service Type	'Business'	Use this value for business Service
ADAPTER_CLASS	Fully qualified name of the adapter class	Use oracle.fsgbu.cmc.nlp.pipeline.services.adaptor.GenericAdaptor for all the business service calls Use oracle.fsgbu.cmc.nlp.pipeline.services.adaptor.OBRHAdaptor if you want to call business service via Oracle Banking Routing Hub	
SERVICE_DEFN	Mapped Service API	API, which will be called for Business service execution	
HEADERS	Comma separated headers key value separated by colon (:)	Eg : docId:123 , branchCode : 000	
METHOD_TYPE	Method Type	POST	
APP_ID	Sub Domain ID	NULL	
RECORD_STAT	Record Status	O	

Column name	Description	Remarks for Data
AUTH_STAT	Authorized Status	A
MOD_NO	Modification Number	1
ONCE_AUTH	Once Authorized	Y
MAKER_ID	Maker Name	SYSTEM
MAKER_DT_STAMP	Maker Date stamp	<Application Date>
CHECKER_ID	Authorizer Name	SYSTEM
CHECKER_DT_STAMP	Authorizer Date stamp	<Application Date>

If you are Integrating Business Service via Oracle Banking Routing Hub then in service definition column, you need to provide URL of Oracle Banking Routing Hub dispatch API and the additional headers in headers column.

Since there are some common headers, which are required for calling Oracle Banking Routing Hub as well (like applId, branchCode, uderId) and to avoid the conflict for these headers, the ML_ prefix is appended in header keys by Oracle Banking Routing Hub adaptor. You need to configure transformation logic of these headers in Oracle Banking Routing Hub.

5 Machine Learning Framework

This section is designed to help you quickly get acquainted with how to on-board business cases on the Machine Learning framework in Oracle Banking.

The assets used to build the Machine Learning framework is available by default with Oracle database.

Oracle Database 19c and above.

Prerequisites

Specify **User Id** and **Password**, and login to **Home screen**.

Make sure that Machine Learning framework is already deployed and available as part of the application menu. Refer to **Common Core Services Installation Guide** for more details.

5.1 Regression On-Boarding

On-boarding a new business case onto the Machine Learning framework involves two broad stages as highlighted below.

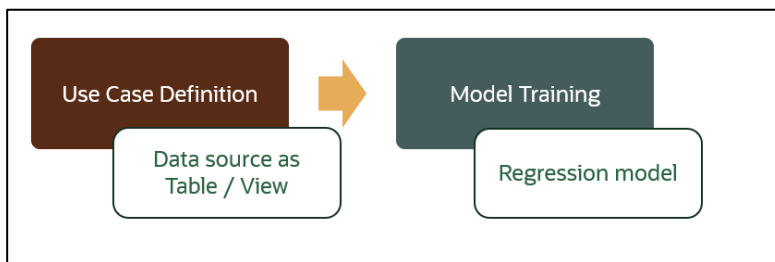
Model Definition

One-time setup of use case definition captures the data source, target columns and type of use case.

Model Training

Model training is use case specific and has the intelligence to evaluate multiple algorithms and discover the best fit algorithm to the data pattern.

The onset of these two stages assumes that you have already decided on the business use case that you would want to on-board.



5.2 Frameworks Supported

5.2.1 Timeseries

Timeseries are the use cases involving the date sequence data to forecast for future dates.

Example:

CASE ID	CCY	BALANCE
17-Aug	USD	6723.00
18-Aug	USD	250.00
19-Aug	USD	2654.00
20-Aug	USD	20.00
21-Aug	USD	?

NOTE: CASE ID can either be a DATE or a Sequence

5.2.2 Timeseries Algorithms Supported

By default, the framework uses Exponential Smoothing to forecast from timeseries data. It evaluates 14 different algorithmic combinations to best fit the patterns of

- Error type (additive or multiplicative),
- Trend (additive, multiplicative, or none), including damped trends
- and Seasonality (additive, multiplicative, or none)

NOTE: User is not required to select any algorithmic combinations. The framework evaluates and selects the best fit combination for you.

5.2.3 Regression

Regression is a statistical technique to discover relationships using independent variables to estimate/predict a target variable of NUMBER or INTEGER type.

Example: User needs to predict the value of LUXURY SPEND for a new CASE ID, given the data of branch, marital status, income and savings

CASE ID	BRANCH	MARITAL STATUS	INCOME	SAVING	LUXURY SPEND
12345	BRT	Y	15000	6723	1000
12346	BRT	N	17500	250	750
12347	CSR	D	25000	2654	1900
12348	CSR	N	16567	20	2500

NOTE: CASE ID MUST uniquely identify a row

5.2.4 Regression Algorithms Supported

The following algorithm are available as part of the framework.

S No	ALGORITHM	REMARKS
1	GENERALIZED LINEAR REGRESSION	Also handles RIDGE regression depending on the underlying pattern of data
2	SUPPORT VECTOR MACHINE	Supports both linear and gaussian kernels
3	NEURAL NETWORK	Uses default 1 layer with number of nodes <= 50

NOTE: Users have the flexibility to select a specific algorithm or keep it as NULL for the framework to evaluate and best fit the algorithm to the underlying data.

5.3 Partitioned Model

Oracle in-Database machine learning allows the user to design partitioned models.

Partitioned model organizes and represents multiple models as partitions in a single model entity, enabling you to easily build and manage models tailored to independent slices of data.

Example:

CUSTOMER ID	BRANCH	MARITAL STATUS	INCOME	SAVING	LUXURY SPEND
12345	BRT	Y	15000	6723	1000
12346	BRT	N	17500	250	750
12347	CSR	D	25000	2654	1900
12348	GRF	N	16567	20	2500

In this above example of data, user could build a single partitioned model on independent slices of data based on branch code.

The user has the advantage of having a single partitioned model instead of having multiple models for each individual branch.

5.4 On-Boarding Regression Use Case

5.4.1 Model Definition

Use cases are defined by the business domain of the product processor to which it is mapped. They are unique and machine learning models are named after the use case.

The model definition screen allows you to define the use case and configure the data source to be used for model training.

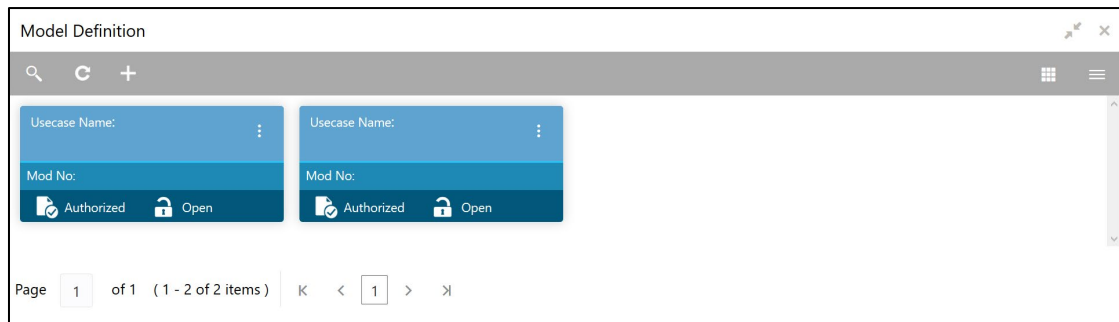
5.4.1.1 Model Definition Summary

The summary screen displays the list of defined use cases. To access the screen, perform the following steps:

1. From **Home** screen, click **Machine Learning**. Under **Machine Learning**, click **Model Definition**.

→ The **Model Definition Summary** screen is displayed.

Figure 258: Model Definition Summary



For more information on fields, refer to the field description table below.

Table 212: Model Definition Summary – Field Description

Field	Description
Usecase Name	Displays the name of the use case
Mod No	Displays the modification number
Authorized Status	Displays the Authorized or Unauthorized status
Record Status	Displays the status of the record.

5.4.1.2 Model Definition Maintenance

Model Definition Maintenance screen enables the user to maintain the use case details and define the use case type and data source details.


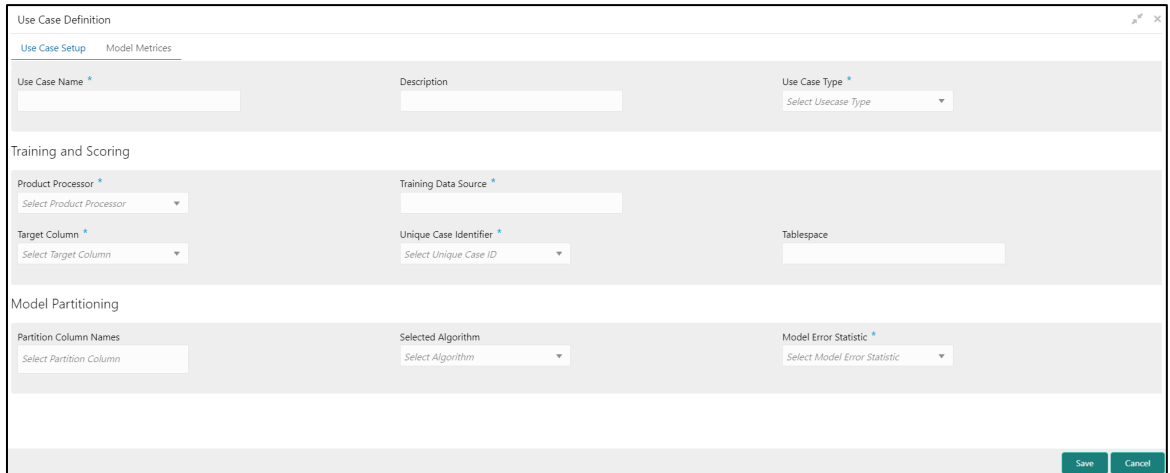
- From **Model Definition Summary** screen, click  button on the Use case tile, and click **Unlock**.
→ The **Model Definition Maintenance** screen is displayed.

Figure 259: Model Definition Maintenance



- On **Model Definition Maintenance** screen, specify the fields. The fields which are marked with asterisk are mandatory. For more information on fields, refer to the field description table below.

Table 213: Model Definition Maintenance – Field Description

Field	Description
Use Case Name	Specify the name of the Use Case.
Description	Specify the description of the Use Case.
Use Case Type	Select the type of Use Case. Refer Frameworks Supported for details.
Product Processor	Select the product to which the use case belongs.
Training Data Source	Specify the Table or View name used as data source to train the model.
Target Column	Select the value of the column which is predicted by training the model. NOTE: Column name is a function of table/view design
Unique Identifier	Select the column name to uniquely identify a record. NOTE: Column name is a function of table/view design

Field	Description
Tablespace	Specify the valid tablespace and all model related data will be persisted in this table space
Partition Column Names	Specify the column names to slice data. Refer Partitioned Model for details
Selected Algorithm	Select the algorithm from the list and build the model. For REGRESSION, this field should be null and allow the framework to select the best fit algorithm to build the model.
Model Error Statistics	Select the model error statistics. By Default, the value is selected as 'RMSE' for REGRESSION. The user can also select 'MAE'.

3. Click **Save**. You can view the configured details in the Model Definition Summary.

Model Metrics

Once the user has successfully trained Machine Learning model, the user can score/predict the model outcomes as required by the use case. The user can view the **Model Metrics** tab only after training the model successfully. Refer to **Model Training and Scoring** section for training the model.

- Click **Model Metrics** tab to view the Model Metrics details.

→ The **Model Metrics** screen is displayed.

Figure 260: Model Metrics

- For more information on fields, refer to the field description table below.

Table 214: Model Metrics – Field Description

Field	Description
Model Partitions	Select the model partitions from the dropdown. If the model has been designed to have partitions, it will display the partitioned values based on underlying data of the defined partition column else display FULL MODEL.
Metrics	Displays the various model attributes, as per the best model identified and trained. The number of model attributes is a function of algorithm and underlying pattern of data Some attributes are common for all models, Model Name Algorithm INF_TIME (Inference Time) <Model metric>(Train) <Model metric>(Test)
Value	Displays the value of the attribute.

5.4.2 Model Training and Scoring

Model Training and Scoring screen enables the user to train the model for the selected use case and use the trained model to predict and score multiple records at a time. The predicted values persist in the database and are available in the prediction column maintained for the user case.

1. From **Home** screen, click **Machine Learning**. Under **Machine Learning**, click **Model Training and Scoring**.

→ The **Model Training and Scoring** screen is displayed.

Figure 261: Model Training and Scoring

For more information on fields, refer to the field description table below.

Table 215: Model Training and Scoring – Field Description

Field	Description
Use Case Name	Select the Use Case name from the dropdown.
Description	Displays the description of the use case.
Use Case Type	Displays the type of use case.
Model Training	Displays the model training details.
Training Data Source	Displays the training data source.
Unique Case Identifier	Displays the unique case identifier.
Target Column	Displays the target column of the model.
Partition Column(s)	Displays the partition column of the model.

Field	Description
Model Batch Scoring	Displays the model batch scoring details.
Model Name	Displays the name of the model.
Scoring Destination	Displays the scoring destination.

2. Select the use case name from the dropdown.
3. Click **Train Model** to train the model for the selected use case.
4. Click **Batch Scoring** to predict the score for the data source records.

The predictions of batch scoring are now available for business consumption.

5.5 Online Single Record Prediction

This is made available as a REST API and allow you to predict for a single record. The predictions do not persist in the database.

These can be invoked directly from application user interface, to retrieve and display the results.

The explainability of the model outcome is also made available.

5.6 Regression Use Case Modifications

Use case definition may undergo the following modification and would require model re-training. After each re-training run, you should review the model details discussed under Regression Model Explainability.

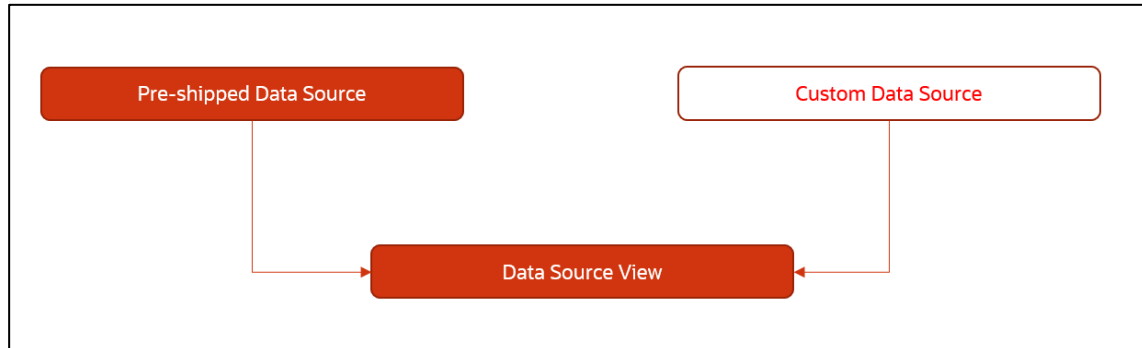
Table 216: Regression Use Case Modifications

Use Case Modification	Model Re-training Required
Data Source replaced by another data source	Yes
New column Added to existing data source	Yes
New columns Added to custom data source	Yes
Existing column removed from existing data source	Yes
Selected Algorithm Changed	Yes
Model Error statistic Changed	Yes
Partition Column Name list altered (added / removed)	Yes

5.7 Regression Data Extensibility

To address the requirement of banks to add new data points to the factory shipped data source, we have provided the facility of data extensibility.

Figure 262: Regression Data Extensibility



Banks can add any number of new data columns to the customer data source

The defined data source view is mapped to a use case in the Model definition.

Machine Learning will automatically consider all the available data points in the data source View.

5.8 Regression Model Explainability

The details of the Regression models built using the framework is made available under the 'Model Metrics' tab in Use Case Definition for better understanding and transparency.

The available details are

- Model Name
- Algorithm Name
- Inference Time
- Training Error Metric
- Testing Error Metric
- List of data attributes that make up the model depending on the framework and algorithm used

5.9 Time Series Forecast

Timeseries forecast is unique as it consumes sequential data to forecast.

This uniqueness necessitates model training and forecast to be executed in a single processing routine. This is very unlike regression model approach where model training and model prediction are separate distinct actions.

5.9.1 Forecast REST Service

Timeseries framework is made available as an independent REST service to be consumed by products and use cases as required.

The following information is required to be provided.

Table 217: Forecast REST Service – Field Description

Field	Description
Use Case Name	Specify the Unique Use Case Name.
Data Source	Specify the Table or View name used as data source to train the model.
Target Column	Specify the model will train and forecast future values of this column. NOTE: Column name is a function of table/view design
Unique Identifier	Specify the column name to uniquely identify a sequence NOTE: Column name is a function of table/view design. Must be Date or a sequence
Model Partitioning	Specify the column names to slice data. Refer Partitioned Model for details NOTE: Column name is a function of table/view design
Partitioned Value	Specify the actual Value of the Model Partition
Forecast Window	Specify the number of forecasts required as an outcome
Tablespace	Specify the valid tablespace and all model related data will be persisted in this table space

6 Error Codes and Messages

This topic contains the error codes and messages:

Table 218: Error Codes and Messages

Error Codes	Messages
CC-01015	Default BIC Is Checked For More Than One BIC
CC-01016	Swift Address is Mandatory
CC-01017	Default BIC Is Not Checked For any BIC
CC-01018	Same Swift Address is present more than once
CC-01019	Mismatch in bank code
CC-ACC-002	Currency should be null for Multi-Currency Account
CC-ACC-102	Record already exist for Source Branch and Source Account No combination
CC-ACC-169	Reopen not allowed for a closed Customer No
CC-BIC-010	Bic code is being used in branch maintenance. Close not allowed.
CC-BIC02	The BIC code does not conform to SWIFT standards
CC-BIC05	Record already maintained for the customer no
CC-BNK-001	Branch code is in Open status. Close not allowed.
CC-BNK-002	Reopen not allowed for a closed Branch Code
CC-BNK-003	Only one Bank Code is allowed.
CC-BRN-101	Active account / accounts exist for the branch code. Close not allowed.
CC-BRN-102	This is HO branch. Close not allowed.
CC-BRN-103	Record for Source Branch Code already exists
CC-C00100	Relationship cannot be No for a Customer Linked BIC Code

Error Codes	Messages
CC-CUS-167	Record already exist for customer no and source_system_cust_no combination
CC-CUS-169	Active account/accounts exist for the customer no
CC-CUS-17	Kindly Enter a Valid Walkin Customer
CC-EC-002	Record already exist for Account IBAN
CC-ECA-001	Active \$1 exist for the Source System
CC-HST-001	Active \$1 exist for the Host Code
CC-MOD-001	\$1 cannot be modified
CC-MOD-INV	\$1 is invalid
CC-NUL-001	\$1 cannot be null
CC-TXN-001	\$1 is closed. Reopen not allowed.
CMC-ACC-FOR01	Cannot reopen forgotten account
CMC-ACC-PII01	User doesnt have access to PII data, cannot perform create or modify operations
CMC-ACC-SUBAC01	No SubAccounts available for Multi-Currency Account
CMC-ACC-SUBAC02	Exactly one account should be primary account
CMC-ACC-SUBAC03	Sub Accounts should have unique currency code
CMC-BRN-018	Exception occurred in ICFIipDate
CMC-BRN-019	Unable to get branch date
CMC-BRN-020	Branch code is null
CMC-BRN-100	Branch Status retrieved Successfully
CMC-BRN-101	Branch doesnot exist
CMC-BRN-CD01	Date changed successfully
CMC-BRN-CD02	Failed to change date, holiday list not maintained properly

Error Codes	Messages
CMC-BRN-EOD01	Branch Status not in TI, cannot initiate EOD
CMC-BRN-EOD02	EOD invoked for the branch
CMC-BRN-EOD03	Invalid Branch Code
CMC-BRN-EOD04	Eod Requested on Date is not Branch's Today
CMC-BRN-EOD05	EOD cannot be invoked on a holiday
CMC-BRN-EOD06	Date changed successfully
CMC-BRN-EOD07	EOD not invoked, cannot initiate change date
CMC-BRN-EOD08	EOFI job not completed, cannot initiate change date
CMC-BRN-EOD09	EOD not invoked, cannot initiate mark TI
CMC-BRN-EOD10	Date Change job not completed, cannot initiate TI for next day
CMC-BRN-EOD11	Mark TI successful
CMC-BRN-EOD12	Branch status not in TI, cannot initiate Mark EOFI
CMC-BRN-EOD13	Branch status not in EOFI, cannot change Date
CMC-BRN-EOD14	Branch status for next working date update to BOD
CMC-BRN-EOD15	Branch status not in BOD, cannot mark TI
CMC-BRN-EOD16	Branch status for next working date update to TI
CMC-BRN-EOD17	Branch Status Changed to EOFI
CMC-BRN-EOD18	Invoke Mark TI failed
CMC-BRN-EOD19	Date change completed cannot retrigger
CMC-BRN-EOD20	Mark TI completed cannot retrigger
CMC-BRN-EOD21	Date changed failed
CMC-BRN-EOD30	Invalid requested date, failed to parse
CMC-BRN-EOD31	Mark Eoti retry initiated

Error Codes	Messages
CMC-BRN-EOD32	Cannot retry Mark EOFI which has not failed
CMC-BRN-EOD33	Date Changed successfully. \$1
CMC-BRN-EOD34	BOD Batches completed successfully.
CMC-BRN-EOD35	BOD Batches retrIGGERED successfully. \$1
CMC-BRN-EOD36	\$1. Hence EOFI Failed.
CMC-BRN-EOD37	Failed in getting current date
CMC-CCY-001	Duplicate records exists in Amount word currency Mapping
CMC-CCY-002	Duplicate records exists in Amount Text Mapping
CMC-CCY-003	Cannot change Currency Decimal for once authorized currencies
CMC-CCY-004	Cannot Change round unit if the round rule is Truncate (T)
CMC-CCY-005	Mandatory field Interest Method is not entered
CMC-CCY-006	Mandatory field Spot Days is not entered
CMC-CCY-007	Mandatory field Settlement Days is not entered
CMC-CCY-008	Mandatory field Country is not entered
CMC-CCY-009	Mandatory field Rule is not entered
CMC-CCY-010	Value should be in range of 0 and 999 for Settlement Days
CMC-CCY-011	Mandatory field Unit is not entered
CMC-CCY-012	Decimals/ Rounding Unit Mismatch
CMC-CCY-013	Numerator of Interest Method is not Actual
CMC-CCY-014	Duplicate Alternate Currency Code
CMC-CCY-015	Duplicate ISO Numeric Currency Code
CMC-CCY-016	Duplicate Euro currency

Error Codes	Messages
CMC-CCY-017	Euro Conversion required cannot be changed for the currency types out, Euro and Euro closed
CMC-CCY-018	Spot days is less than fx netting days
CMC-CCY-019	Currency Cut Off days cannot be greater than spot days for currency
CMC-CCY-020	Spot Days for currency cannot be lesser than cut off days for currency
CMC-CCY-021	Value should be in range of 1 and 99 for Cut Off Days
CMC-CCY-022	Value should be in range of 1 and 23 for Cut Off Hour
CMC-CCY-023	Value should be in range of 1 and 59 for Cut Off Min
CMC-CCY-024	Value cannot be less than .00000 for Currency Total limit
CMC-CCY-025	Value should be in range of 0 and 3 for Currency Decimal
CMC-CCY-026	Country Code is Mandatory
CMC-CCY-027	Duplicate records exists in Currency Country Mapping
CMC-CCY-028	Mandatory field Country is not entered in Currency Country Mapping
CMC-CCY-029	Currency Code is NULL
CMC-CCY-030	Date is NULL
CMC-CCY-031	Date is Invalid (should be in yyyy-mm-dd format)
CMC-CCY-032	No record found
CMC-CCY-033	Next/Previous indicator is NULL (should be either N or P)
CMC-CCY-034	Next/Previous indicator is Invalid (should be either N or P)
CMC-CCY-035	Lower Limit Date is Invalid (should be in yyyy-mm-dd format)
CMC-CCY-036	Upper Limit Date is Invalid (should be in yyyy-mm-dd format)
CMC-CCY-037	Offset is NULL
CMC-CCY-038	Offset is Invalid (should be > 0)

Error Codes	Messages
CMC-CCY-039	Input date should be between Upper limit date and Lower limit date
CMC-CCY-040	Duplicate records exists in CurrencyHolidays
CMC-CCY-041	Mandatory Through Currency Code is not entered
CMC-CCY-042	Cannot change spread definition option for through currency pair
CMC-CCY-043	Through currency should be blank if the through currency is unchecked
CMC-CCY-044	Through currency has to be of type Euro
CMC-CCY-045	Through Currency is not allowed for Euro In Currency Pair
CMC-CCY-046	Points multiplier should be in the range 0 - 1
CMC-CCY-047	MidRate is invalid
CMC-CCY-048	BuySpread is invalid
CMC-CCY-049	SaleSpread is invalid
CMC-CCY-050	Atleast one Currency Rate Should be Maintained
CMC-CCY-051	Duplicate records exists in Rate
CMC-CCY-052	Currency Code is NULL
CMC-CCY-053	Currency Code is Empty
CMC-CCY-054	Amount is NULL
CMC-CCY-055	Option is NULL
CMC-CCY-056	Option is Empty
CMC-CCY-057	Method is NULL
CMC-CCY-058	Method is Empty
CMC-CCY-059	Decimal is NULL
CMC-CCY-060	Units is NULL

Error Codes	Messages
CMC-CCY-061	Maintenance Country is NULL
CMC-CCY-062	Maintenance Country is Empty
CMC-CCY-063	Currency1/Currency2/branch Code is NULL
CMC-CCY-065	Error in conversion
CMC-CCY-066	Rate is not handled for currency1 and currency2
CMC-CCY-067	Rate is not handled for currency2 and currency1
CMC-CCY-068	Error in Amount rounding
CMC-CCY-069	Currency definition is not maintained for given currency and maintenance country
CMC-CCY-070	Error in getting branch currency and country
CMC-CCY-071	Error in getting currency pair for currency1 and currency2
CMC-CCY-072	Error in getting Premium points for currency1 and currency2
CMC-CCY-073	Error in getting rate with through currency
CMC-CCY-074	Error in getting Rate
CMC-CCY-075	Rate History is not handled for currency1 and currency2
CMC-CCY-076	Rate History is not handled for currency2 and currency1
CMC-CCY-077	Currency Pair is not maintained
CMC-CCY-078	Error in purging
CMC-CCY-079	Data inadequate in currency Pair Definition
CMC-CCY-080	Currency Pair already exists for the given Maintenance Country
CMC-CCY-081	MidRate is mandatory
CMC-CCY-082	Either buySpread/buyRate are mandatory
CMC-CCY-083	Either saleSpread/saleRate are mandatory

Error Codes	Messages
CMC-CUS-FOR01	Record successfully deleted
CMC-CUS-PII01	User doesnt have access to PII data, cannot perform create or modify operations
CMC-EOD-001	Invoked EOD successfully
CMC-EOD-002	Failed while resolving current date
CMC-EOD-003	EOD flow is not maintained for \$1 branch
CMC-EOD-004	EOD already invoked for today
CMC-EOD-005	Unable to invoke EOD
CMC-EOD-006	Retried EOD successfully
CMC-EOD-007	Failed to retry EOD
CMC-EOD-008	Pending maintenances exist. Failed to start EOD
CMC-EOD-009	Failed during pending maintenance check
CMC-EOD-010	Pending transactions exist. Failed to start EOD
CMC-EOD-011	Failed during pending transaction check
CMC-EOD-012	Marked cutoff for the branch successfully
CMC-EOD-013	Branch not in Transaction Input. Cannot mark cutoff
CMC-EOD-014	Branch not in BOD stage. Cannot release cutoff
CMC-EOD-015	Released cutoff for the branch successfully
CMC-EOD-016	Branch cutoff not released. Cannot mark Transaction Input
CMC-EOD-017	Branch cutoff not marked. Cannot mark End of Transaction Input
CMC-FORC-001	Request is null, not valid.
CMC-FORC-002	Forget customers request created successfully.
CMC-FORC-003	Failed to create forget entities request.

Error Codes	Messages
CMC-FORC-004	Invalid id sent, id null
CMC-FORC-005	Already authorized
CMC-FORC-006	Authorized successfully
CMC-FORC-007	Record not found, invalid id.
CMC-FORC-008	Cannot delete authorized record
CMC-FORC-009	Record successfully deleted
CMC-FORC-010	Invalid Customer \$1 added, customer should be valid and in closed and authorized state without pending maintenance
CMC-FORC-011	Invalid request. Duplicate requests for customer number \$1
CMC-INDBML-001	Usecase already exists with a same name
CMC-INDBML-002	Target Column cannot be null
CMC-INDBML-003	Unique Case Identifier Column cannot be null
CMC-INDBML-004	Invalid Partition column value
CMC-INDBML-005	Duplicate Column Values
CMC-INDBML-006	Partition Columns cannot be same as either of target, usecase identifier or prediction column.
CMC-LOV-001	Invalid Source Code
CMC-LOV-002	Invalid Currency
CMC-LOV-003	Cannot Close the record for which rates are maintained
CMC-LOV-004	Invalid Language Code
CMC-LOV-005	Invalid Country
CMC-LOV-006	Invalid GLCode
CMC-LOV-007	Invalid Limit Currency
CMC-LOV-008	Invalid Year

Error Codes	Messages
CMC-LOV-009	Invalid Month
CMC-LOV-010	Amount Limit Exceeds
CMC-LOV-011	Invalid Version
CMC-LOV-012	Rate Type \$1 is invalid
CMC-NLP-000	System is unable to process the request
CMC-NLP-001	Training File created successfully
CMC-NLP-002	Training File creation failed
CMC-NLP-003	Service definition not found for \$1 for use case \$2
CMC-NLP-004	Unsupported file type uploaded please upload supported file type
CMC-NLP-005	You don't have sufficient number of training files for use case \$1 to train the model
CMC-NLP-006	Invalid training files are present in the training corpus
CMC-NLP-007	Error in processing step \$1
CMC-NLP-008	Successfully completed the processing of process \$1
CMC-OBRH-001	Record already exists.
CMC-OBRH-002	Record saved successfully.
CMC-OBRH-003	Record does not exist.
CMC-OBRH-004	Invalid Payload
CMC-OBRH-005	Record deleted successfully.
CMC-OBRH-006	Record modified successfully.
CMC-OBRH-007	Data fetched successfully.
CMC-OBRH-008	Data exported successfully.
CMC-OBRH-009	Failed to get data.

Error Codes	Messages
CMC-OBRH-010	Cannot start disabled route.
CMC-OBRH-011	Data imported successfully.
CMC-OBRH-012	Failed to import.
CMC-OBRH-013	Failed to parse [\$1]
CMC-OBRH-014	Data extracted successfully.
CMC-OBRH-015	Route state cannot be changed to Start as Consumer Service / Provider is inactive.
CMC-OBRH-016	Modified/Deleted attribute is already in use by route.
CMC-OBRH-017	Something went wrong!
CMC-OBRH-018	Imported WSDL successfully
CMC-OBRH-019	Imported Swagger successfully
CMC-OBRH-020	Failed to import [\$1]
CMC-OBRH-021	Failed to export [\$1]
CMC-OBRH-022	Request failed [\$1]
CMC-OBRH-023	Request is being processed
CMC-ORCH-001	Failed to initiate.
CMC-ORCH-002	Transaction is successfully initiated.
CMC-ORCH-003	Invalid action, failed to initiate.
CMC-ORCH-004	\$1 is not submitted, transaction remains the same.
CMC-ORCH-005	Cannot proceed with submit as the action is not initiated.
CMC-ORCH-006	Cannot proceed with submit as the information is incomplete.
CMC-ORCH-007	Failed to submit.
CMC-ORCH-008	Record successfully submitted.

Error Codes	Messages
CMC-ORCH-009	\$1 is in-progress, failed to initiate.
CMC-ORCH-010	Aw, snap! An unexpected exception occurred, try again.
CMC-ORCH-011	Invalid request.
CMC-ORCH-012	Cannot proceed with submit as the action is not initiated.
CMC-ORCH-013	Cannot find the provided information.
CMC-ORCH-014	Record is not yet submitted by \$1, cannot initiate the action.
CMC-ORCH-015	Record already unlocked by \$1.
CMC-ORCH-016	One record can be authorized at a time. Please close the screen and try again
CMC-ORCH-017	Current operation terminated
CMC-ORCH-018	Current operation could not be terminated
CMC-OV-001	Override Codes must not be empty
CMC-OV-002	Business Overrides Saved Successfully
CMC-OV-003	Business Overrides Updated Successfully
CMC-OV-004	Business Overrides Authorized Successfully
CMC-OV-005	Business Overrides Approval Pending
CMC-OV-006	Maker Cannot Authorize
CMC-OV-007	Multiple Authorizations not allowed for checker
CMC-OV-008	No Records found for approval
CMC-OV-009	Maker should approve the records
CMC-OV-010	Reference number is not valid
CMC-OV-011	Exception Occurred while converting string to number
CMC-OV-012	Server Error Occurred during API call

Error Codes	Messages
CMC-OV-013	Client Error Occurred during API call
CMC-OV-014	Illegal State Exception Occurred
CMC-OV-015	JTA Transaction unexpectedly rolled back
CMC-OV-016	Exception Occurred while creating Bean
CMC-OV-017	Unexpected Exception Occurred
CMC-OV-018	Exception Occurred while Executing Query
CMC-STR-001	mandatory fields are missing...
CMC-STR-002	invalid real account number
CMC-STR-003	Real Account No cannot be modified
CMC-STR-004	Structured Address is already created for this Real Account
CMC-STR-005	Structured Address is already created for this External Virtual Account
CMC-STR-006	invalid virtual account number
CMC-STR-007	Virtual Account No cannot be modified
CMC-VAM-001	Rolled Back Due to Exception
ERR_DEF_CODE	System is unable to process the request
GCS-AUTH-01	Record Successfully Authorized
GCS-AUTH-02	Valid modifications for approval were not sent. Failed to match
GCS-AUTH-03	Maker cannot authorize
GCS-AUTH-04	No Valid unauthroized modifications found for approval.
GCS-CLOS-002	Record Successfully Closed
GCS-CLOS-01	Record Already Closed
GCS-CLOS-02	Record Successfully Closed

Error Codes	Messages
GCS-CLOS-03	Unauthorized record cannot be closed, it can be deleted before first authorization
GCS-COM-001	Record does not exist
GCS-COM-002	Invalid version sent, operation can be performed only on latest version
GCS-COM-003	Please Send Proper ModNo
GCS-COM-004	Please send makerId in the request
GCS-COM-005	Request is Null. Please Resend with Proper SELECT
GCS-COM-006	Unable to parse JSON
GCS-COM-007	Request Successfully Processed
GCS-COM-008	Modifications should be consecutive.
GCS-COM-009	Resource ID cannot be blank or "null".
GCS-COM-010	Successfully cancelled \$1.
GCS-COM-011	\$1 failed to update.
GCS-DEL-001	Record deleted successfully
GCS-DEL-002	Record(s) deleted successfully
GCS-DEL-003	Modifications didnt match valid unauthorized modifications that can be deleted for this record
GCS-DEL-004	Send all unauthorized modifications to be deleted for record that is not authorized even once.
GCS-DEL-005	Only Maker of first version of record can delete modifications of record that is not once authorized.
GCS-DEL-006	No valid unauthroized modifications found for deleting
GCS-DEL-007	Failed to delete. Only maker of the modification(s) can delete.
GCS-MOD-001	Closed Record cannot be modified

Error Codes	Messages
GCS-MOD-002	Record Successfully Modified
GCS-MOD-003	Record marked for close, cannot modify.
GCS-MOD-004	Only maker of the record can modify before once auth
GCS-MOD-005	Not amendable field, cannot modify
GCS-MOD-006	Natural Key cannot be modified
GCS-MOD-007	Only the maker can modify the pending records.
GCS-REOP-003	Successfully Reopened
GCS-REOP-01	Unauthorized Record cannot be Reopened
GCS-REOP-02	Failed to Reopen the Record, cannot reopen Open records
GCS-REOP-03	Successfully Reopened
GCS-REOP-04	Unauthorized record cannot be reopened, record should be closed and authorized
GCS-SAV-001	Record already exists
GCS-SAV-002	Record Saved Successfully.
GCS-SAV-003	The record is saved and validated successfully.
GCS-VAL-001	The record is successfully validated.
ML-RG-001	Regression Model Build Failed
ML-RG-002	Regression Model Statistics Calculation Failed
ML-RG-003	Cross Validation Failed
ML-RG-004	Model Selection Failed
ML-RG-005	Model Successfully Trained
ML-RG-006	Invalid Use Case Selected
ML-RG-007	No Trained Model found

Error Codes	Messages
ML-RG-008	Batch Scoring Failed
ML-RG-009	Successfully completed Batch scoring
ML-UTIL-003	Failed in Random Sampling
ML-UTIL-004	Too less data for model building
ML-UTIL-005	Failed in Splitting Data
ML-UTIL-006	Failed in Selecting Feature
ML-UTIL-007	Failed to Drop Model(s)
ST-CUS-167	Record already exist for customer no and source_system_cust_no combination
ST-SAVE-027	Request Successfully Processed
CBS-CRITERIA-001	Criteria Code cannot be blank
CBS-CRITERIA-002	Criteria Description cannot be blank
CBS-CRITERIA-003	Select valid Product Processor
CBS-CRITERIA-004	Atleast one Rule should be selected in Criteria Definition
CBS-CRITERIA-005	Rule Description cannot be blank
CBS-CRITERIA-006	Select a Rule ID from the list
CBS-CRITERIA-007	Enter a valid number for Priority
CBS-CRITERIA-008	Enter a valid number for Priority
CBS-CRITERIA-009	Duplicate entries found for Rule ID
CBS-CRITERIA-010	Duplicate entries found for Priority
CBS-CRITERIA-011	Enter valid Parent Rule ID for
CBS-CRITERIA-012	Duplicate entries found for Rule ID
CBS-CRITERIA-013	Cannot add child Rule when Call All Bureau is enabled

Error Codes	Messages
CBS-CRITERIA-014	Duplicate entries found for Priority
CBS_ERR_004	Parameter description cannot be modified
CBS_LKUP_01	Duplicate entries found for Lookup Code
CBS_500	Error occurred at Bureau Call Response structure from Bureau is different
CBS_SYSPAR_001	System parameter not maintained for the bureau for history call
CBS_400	Facts not found for Bureau identification Rule Empty response from criteria for given PPcode Empty response from Oracle Banking Routing Hub from bureau call Bureau identification Rule not found for given facts
CBS-CRTR-015	Criteria Code has exceeded the max length specified
CBS-CRTR-016	Description has exceeded the max length specified
CBS-CRTR-017	Rule Id has exceeded the max length specified
CBS-CRTR-018	Rule Description has exceeded the max length specified
CBS_BR_DTLS_NOT_FOUND	Bureau Details are not provided
CBS_BR_DTLS_NOT_MNT	Bureau Details are not maintained for +{reqBureauProductType} (variable, value will be replaced at runtime from payload)
CDS-DML-006	Invalid range definition. Either range or value is allowed
CDS-DML-007	Duplicate \$1 values are not allowed
CDS-DML-010	From value should not be greater than To value
CDS-RUL-001	Error occurred while evaluating the rule
CDS-DML-003	Effective date should be less than Expiry Date
CDS-PRC-006	Effective date should be less than the Expiry Date

Error Codes	Messages
CDS-DML-002	Maintain at least one record in \$1
CDS-DML-014	Effective date cannot be less than the Product Processor Effective date.
CDS-PRC-014	Effective date cannot be less than the Product Processor Effective Date.
CDS-DML-017	if dmlAppEnabledInd is selected as N then dmlFeature can not be null
CDS-DML-018	if dmlAppEnabledInd is selected as y then dmlScoreRuleId can not be null
CDS-DML-022	Input parameter is missing or incorrect. Unable to resolve any scoring model
CDS-DML-023	Input parameter is missing or incorrect. Unable to calculate the score
CDS-DML-013	Invalid product processor
CDS-PRC-011	Incorrect Range Definition. Range definition should be continuous in \$1
CDS-PRC-012	Duplicate \$1 values are not allowed
CDS-DML-015	Product Processor is not authorized
CDS-DML-011	Incorrect Range Definition. Range definition should be continuous
CDS-DML-012	Input parameter is missing or incorrect. Unable to resolve any pricing setup
CDS-QFT-001	if qftRuleApplicableInd is selected as y then qftRuleName and qftRuleId cannot be null
CDS-QFT-002	if qftRuleApplicableInd is selected as N then qftFactName and qftFactId cannot be null
CDS-QFT-005	qftCode cannot be other than alphanumeric
CDS-QFT-004	Fact or rule not found
CDS-DML-008	Invalid rule name

Error Codes	Messages
CDS-PRC-0010	Fact or rule not found
CDS-PRC-007	Pricing Rate definition should be greater than or equal to minimum rate and less than or equal to maximum rate
CDS-PRC-009	rate percentage of range cannot be equal to zero or less than the previous one
CDS-PRC-005	\$1 should be equal to or greater than the System date
CDS-PRC-010	Invalid product processor
CDS-PRC-004	Maintain at least one record \$1
CDS-PRC-001	Min Rate cannot be less than zero or not be more than max rate
CDS-PRC-003	Overlapping price range definition not allowed \$1
CDS-PRC-002	Rate Type cannot any other keyword
CDS-PRC-008	\$1 cannot be less than or equal to zero
CDS-DML-009	Unable to resolve any scoring model
CDS-PPR-001	\$1 should be equal to or greater than the System date
CDS-DML-005	Overlapping range definition not allowed in \$1
CDS-QFT-003	Invalid product processor
CDS-DML-001	\$1 should be equal to or greater than the Posting date
CDS-DML-019	Unable to resolve the best fit scoring model. Multiple scoring model resolved
CDS-DML-016	Unable to resolve the best fit pricing model. Multiple pricing model resolved
CDS-DML-004	The sum of weightage assigned to the feature code should be 100
CDS-PPR-002	Effective date should be less than Expiry Date
CDS-PRC-013	Rate definition should be greater than or equal to minimum rate and less than or equal to maximum rate

Error Codes	Messages
CDS-DML-020	Unable to resolve the best fit application scoring model Multiple application scoring model resolved
CDS-DML-021	Unable to resolve the best fit decision and grade matrix. Multiple decision and grade matrix resolved
CDS-BWC-001	\$1 should be equal to or greater than the System date
CDS-BWC-002	Maintain at least one record in \$1
CDS-BWC-003	Effective date should be less than the Expiry Date
CDS-BWC-014	Effective date cannot be less than the Product Processor Effective date
CDS-STG-006	Effective Date cannot be null or blank
CDS-STG-007	Expiry Date cannot be null or blank
CDS-STG-008	Industry cannot be null or blank
CDS-STG-009	Module cannot be null or blank
CDS-STG-010	Line of Business cannot be null or blank
CDS-STG-011	Effective date should be less than the Expiry Date
CDS-STG-012	Expiry Date should be equal to or greater then the System date
CDS-STG-013	Invalid Strategy Code
CDS-STG-014	Invalid Industry
CDS-STG-015	Invalid Module
CDS-STG-016	Invalid Line of Business
CDS-STG-017	Invalid product processor
CDS-STG-018	Invalid Account Category
CDS-STG-019	Invalid modes for the selected module
CDS-STG-020	Invalid combination of steps for selected modes
CDS-STG-021	Record already exists
CDS-STG-022	Effective date cannot be less than the Product Processor Effective Date
CDS-RUL-002	Fact already exists
CDS-STG-023	Invalid combination of modes and steps
CDS-DML-040	FeatureDTO missing. Kindly enter the details
CDS-LML-029	Logical Model Reason Code is Invalid

Error Codes	Messages
CDS-DML-024	Negative values not allowed
CDS-DML-025	Category not allowed in case of multi applicant scoring model
CDS-DML-026	Perenatge cannot be greater than 100
CDS-DML-027	For multi-applicant max value not allowed
CDS-DML-028	Max value not required for range type Value
CDS-DML-029	Range type cannot be null
CDS-DML-030	Max value cannot be null
CDS-DML-031	Please enter a valid scoring model type
CDS-DML-032	Please enter a valid range type
CDS-DML-033	Feature list not required for application model
CDS-DML-034	Scoring rule id not required for the scoring model type
CDS-DML-035	Please enter a valid feature type
CDS-DML-036	Only range Type Value is allowed, for fact type feature
CDS-DML-037	Only range Type ParamPercent is allowed, for rule based feature
CDS-DML-038	Only range Type Value is allowed, for Text type fact
CDS-DML-039	Category code missing
CDS-LML-015	Logical Model Code size must be between 1 and 30
CDS-LML-016	Logical Model Description size must be between 1 and 240
CDS-LML-017	Logical Model Effective Date cannot be null
CDS-LML-018	Logical Model Expiry Date cannot be null
CDS-LML-019	Logical Model Rule Id size must be between 1 and 80
CDS-LML-020	Logical Model Details Rule Id cannot be null
CDS-LML-021	Reason Code cannot be null
CDS-LML-022	Logical Model comments size must be between 1 and 80
CDS-LML-023	Logical Model Sequence must be in the range of 1 to 999
CDS-LML-024	Logical Model Sequence is Incorrect
CDS-LML-025	Logical Model Priority must be in the range of 1 to 100
CDS-LML-026	Logical Model Details cannot be null or empty
CDS-LML-027	Rule Id cannot be duplicate
CDS-LML-028	Invalid Rule Id
CDS-QUR-001	Invalid Input for QuestionnaireId, can not be null or blank
CDS-QUR-002	Invalid Input for QuestionnaireId, null or blank required

Error Codes	Messages
CDS-QUR-003	Invalid Input for QuestionId, null or blank required
CDS-QUR-004	Invalid Input for QuestionId, can not be null or blank
CDS-QUR-005	Questionnaire Code cannot be null or empty
CDS-QUR-006	Questionnaire Description cannot be null or empty
CDS-QUR-007	Product Processor cannot be null or empty
CDS-QUR-008	Question Code cannot be null or empty
CDS-QUR-009	Question Short Name cannot be null or empty
CDS-QUR-010	Question Description cannot be null or empty
CDS-QUR-011	Question Type cannot be null or empty
CDS-QUR-012	Answer Description cannot be null or empty
CDS-QUR-013	Questionnaire Code size must be between 1 and 30
CDS-QUR-014	Questionnaire Description size must be between 1 and 240
CDS-QUR-015	Question Code cannot be duplicate for a product processor
CDS-QUR-016	Question Sequence Number cannot be null, empty or zero, negative
CDS-QUR-017	Answer Option Sequence Number cannot be null, empty or zero, negative
CDS-QUR-018	Question Sequence Number cannot be duplicate for a questionnaire
CDS-QUR-019	Answer Option Sequence Number cannot be duplicate for a Question
CDS-QUR-020	Answer OptionId cannot be null or empty
CDS-QUR-021	Answer OptionId cannot be duplicate for a question
CDS-BWC-004	Incorrect execution stage
CDS-BWC-005	\$1 fact or rule not found
CDS-QUR-022	Input for whether Question Mandatory cannot be null or empty
CDS-QUR-023	System will not allow to add questions where response choice has not been captured,At least 2 record should be available
CDS-QUR-024	System will not allow to save the questionnaire without any question configured, Atleast 1 question should be configured in the questionnaire
CDS-QUR-025	Question Code cannot be duplicate for a questionnaire.
CDS-STG-024	Invalid type and value for additional info
CDS-STG-025	Selection of atleast 1 mode is mandatory
CDS-STG-026	Effective date cannot be updated after authorisation
CDS-STG-027	Multiple values of same type are not allowed under Additional Information
CDS-LOOKUP-001	Lookup Type must be alphanumeric

Error Codes	Messages
CDS-LOOKUP-002	Lookup Type must be between 1 and 30
CDS-LOOKUP-003	Lookup Description must be between 1 and 240
CDS-LOOKUP-004	Duplicate lookup codes not allowed

7 Glossary

This section provides a glossary of all terms and abbreviations used in the user manual.

Accounts

Continuing financial relationship between a bank and a customer, in which deposits and debts are held and processed within a framework of established rules and procedures.

Reports

A page containing information organized in a narrative, graphic, or tabular format, prepared on ad-hoc, periodic, recurring, regular, or as required basis. Reports may refer to specific periods, events, occurrences, or subjects.

Pareto Chart

It is a type of chart that consists of both bars and a line graph, where individual values are represented in descending order by bars, and the cumulative total is represented by the line.

Sunburst Chart

It is a type of chart that is ideal for displaying hierarchical data. Each level of the hierarchy is represented by one ring or circle with the innermost circle as the top of the hierarchy. A sunburst chart without any hierarchical data (one level of categories), looks similar to a doughnut chart.

Virtual Account

Virtual accounts are provided to a corporate by its banking partner. Each account is a subsidiary or sub-account of the client's own physical account with the bank; they cannot exist outside of the immediate relationship; hence they are virtual.

Virtual Identifier

Virtual identifier serves to segregate any funds from any other funds in the same main account and yet is inextricably linked to the virtual account.

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9 Reference and Feedback

This section contains following subsections:

- [9.1 References](#)
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9.1 References

For more information on any related features, you can refer to the following documents:

- Oracle Banking Security Management System User Guide
- Getting Started User Guide

9.2 Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

9.3 Feedback and Support

Oracle welcomes customers' comments and suggestions on the quality and usefulness of the document. Your feedback is important to us. If you have a query that is not covered in this user guide or if you still need assistance, please contact documentation team.