Oracle® Financial Services

Profitability Analytics Cloud Service User Guide

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Oracle Financial Services Profitability Analytics Cloud Service User Guide, Release 23.09.01

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About This Content

This guide provides information on the Oracle Financial Services Profitability Analytics Cloud Service (OFS PACS).

Audience

This guide is intended for the users of Oracle Financial Services Profitability Analytics Cloud Service (OFS PACS).

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.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info or visit http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs if you are hearing impaired.

Related Resources

See these Oracle resources:

- Oracle Financial Services Profitability and Balance Sheet Management Cloud Service
- Oracle Financial Services Profitability Analytics Cloud Service
- Licensing Information User Manual

Conventions

The following text conventions are used in this document.

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
italic	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
`monospace`	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

2
Getting Started

This chapter covers the Oracle Cloud, followed by Profitability Management Cloud Service and the instructions to get started with the cloud service, and instructions to use the Admin Console.

Topics:

- Getting Started with Oracle Cloud: Oracle Cloud is the industry's broadest and most integrated cloud provider, with deployment options ranging from the public cloud to your data center. Oracle Cloud offers best-in-class services across Software as a Service (SaaS), Platform as a Service (PaaS), and Infrastructure as a Service (IaaS).
- Profitability Analytics Cloud Service: The Financial Services Profitability Analytics Cloud Service enables Banks and other Financial Services institutions to identify profitable and potentially profitable portfolios, accounts, and customer relationships and understand its enablers. Top Down Reporting from Management Ledger and Bottom Up reporting from instrument tables for different user roles is supported. Key elements of BI content include Strategic Insights around Org Unit, Product, and Customer including account and segment level profitability.
- Introduction to Admin Console: Use the Admin Console to perform System Configuration and Identity Management. It is a single point of access to manage identity functions and view administrative features such as Metering, Audit Trail Report and other miscellaneous configuration details in the Profitability and Balance Sheet Management Cloud Service (PBSMCS).

2.1 Welcome to Oracle Cloud

Oracle Cloud is the industry's broadest and most integrated cloud provider, with deployment options ranging from the public cloud to your data center.

Oracle Cloud offers best-in-class services across Software as a Service (SaaS), Platform as a Service (PaaS), and Infrastructure as a Service (IaaS).

2.1.1 About Oracle Cloud

Oracle Cloud is one of the few cloud providers that can offer a complete set of cloud services to meet all your enterprise computing needs.

Use Oracle Infrastructure as a Service (IaaS) offering to quickly set up the virtual machines, storage, and networking capabilities you need to run just about any kind of workload. Your infrastructure is managed, hosted, and supported by Oracle.

Use Oracle Platform as a Service offerings to provision ready-to-use environments for your enterprise IT and development teams, so they can build and deploy applications, based on proven Oracle databases and application servers.

Use Oracle Software as a Service (SaaS) offerings to run your business from the Cloud. Oracle offers cloud-based solutions for Human Capital Management, Enterprise Resource

Planning, Supply Chain Management, and many other applications, all managed, hosted, and supported by Oracle.

2.1.2 Supported Web Browsers

Oracle Financial Services Cloud Services support the latest version of the following major browsers:

- Google Chrome
- Microsoft Edge
- Mozilla Firefox

For more details, see Oracle Software Web Browser Support Policy.

When sharing a link to a document or folder, users of Microsoft Edge need to use the Show Link button and copy the link shown in the dialog.

2.1.3 Order Oracle Cloud Applications

You can order Oracle Cloud Applications (Software as a Service) offerings by contacting Oracle Sales. After your order is processed, you can then activate your services.

To order a subscription to Oracle Cloud Applications:

1. Go to the Oracle Financial Services Risk and Finance solutions page.
2. Scroll down and select **Profitability Analytics**.
3. Review the features and capabilities of the service and read the Datasheet.
4. When you are ready to order, scroll up and click **Request a Demo**.
5. You can either write an email or click **Request Now** to receive a call from Sales.
6. Enter your **Business email**, select the confirmation check box, and click **Continue**.
7. Provide a description of your need and click **Request Now**.

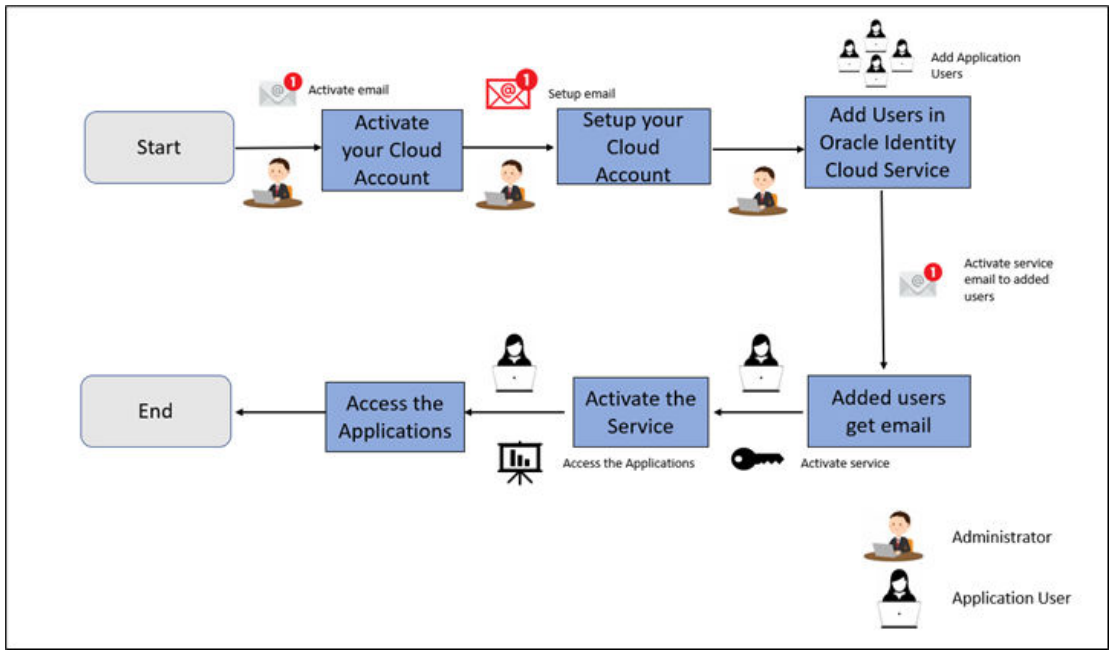
Later, after you have worked with Oracle Sales to order the Oracle Cloud Application best suited to your requirements, you will receive an email, which contains a link you can use to activate the service you have ordered.

To know how to activate, see Create and Activate New Cloud Account.

2.2 Getting Started with Profitability Analytics Cloud Service

To get started, you must activate the Profitability Analytics Cloud Service (PACS). After activating the Cloud Service, you can onboard Application Users to use the subscribed Cloud Services.

Figure 2-1 Illustration of the Cloud Subscription Workflow



This topic describes the set of actions that can be performed by:

- An Administrator to activate the Cloud Account and onboard Applications Users for the subscribed Cloud Services.
  - Create and Activate New Cloud Account
  - Access the Cloud Account
  - Access the Oracle Identity Cloud Service Console
- The Application Users to activate and use the Cloud Services that are provisioned by the Administrator.
  - Activate your Account as Application Users

2.2.1 Create and Activate New Cloud Account

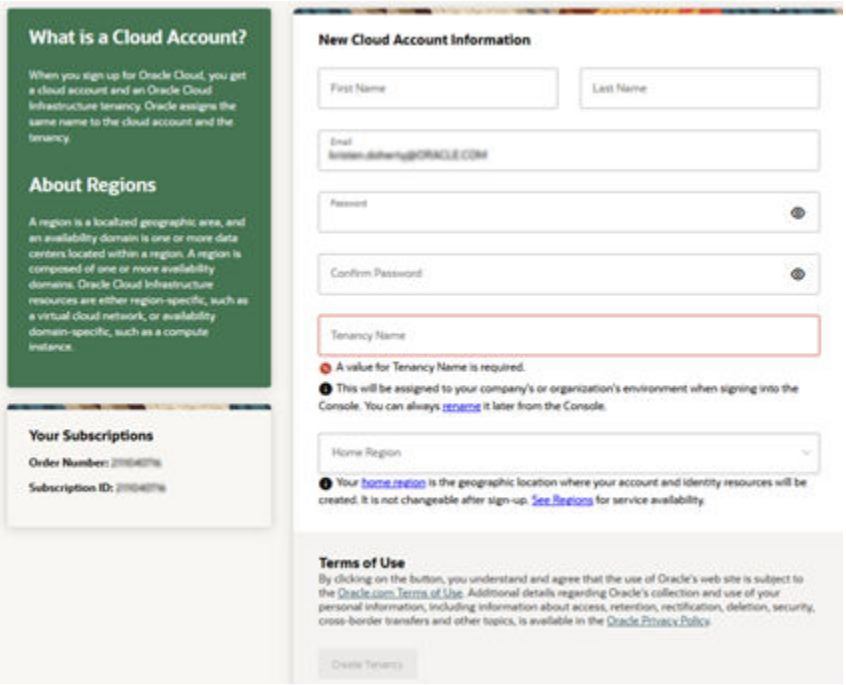
If you are a new Oracle Cloud Applications User, you will receive a Welcome to Oracle Cloud email that asks you to activate your Cloud Account. Follow the instructions in the email to create and activate your new Cloud Account.

You will then receive a follow-up email with the information you need to sign in and start using your Cloud Applications.

As an Administrator, to create and activate your new Cloud Account, perform the following steps:

1. Click **Create New Cloud Account** in the email.
2. Complete the **New Cloud Account Information** to sign up.

Figure 2-2 New Cloud Account Information page



3. Enter the following details:
   - **First Name** and the **Last Name**.
   - **Email**: Provide the same email address which you had given to receive the Welcome email. Instructions to log into your new Oracle Cloud Account will be sent to this email address.
   - **Password** to access the New Cloud Account.
     Re-enter the Password for confirmation. Make a note of the credentials. The same is required to log in after receiving the Activation email.
   - **Tenancy Name**: New Tenancy name to be associated with the Cloud Account.
   - **Home Region**: Select your Home Region, where the Identity Resources and Account are located. Check the service availability before selecting the Home Region.
4. Click **Create Tenancy**.
5. The **New Cloud Creation Confirmation** screen is displayed.

   After successful activation, you'll receive a **Setup Complete** email.

2.2.1.1 Add to an Existing Cloud Account

As an Administrator, if you already own a Cloud Account and need to use the another Cloud Service, perform the following steps:

1. In the Welcome email, click **Add** to existing cloud account option.
2. Perform the steps as mentioned in the Access the Oracle Identity Cloud Service Console section.

2.2.2 Access the Cloud Account

As an Administrator, to access the Cloud Account:

1. In the **Setup Complete** email, click **Sign In**.
2. Enter the Username and Password to access the **Oracle Cloud Console URL**. Use the same Username and Password that you provided during activation setup.
3. Reset the Password.
4. Re log in to **Oracle Cloud Infrastructure Classic Console** using the new Password.
5. Navigate to the **Oracle Cloud Infrastructure Classic Console** where the Application URLs are displayed.

2.2.3 Create an Environment

After logging into the Oracle Cloud Infrastructure Classic Console, you can create one or multiple instances that can be used by different user groups.

To create an instance, follow these steps:

1. Log into Oracle Cloud Infrastructure Classic Console.
   Under **My Applications**, you will see the list of environments (instances) provisioned for the one or multiple cloud applications. The following details are provided for each environment:
   - **Name**: The given name to the cloud application's instance.
   - **Type**: The type of the instance.
   - **Life cycle status**: The status of the instance.
   - **Region**: The region from where this instance is active.
   - **Application URL**: The URL to access the instance.
2. To create a new environment, click **Create environment**.
   This screen displays a list of Cloud Services to which the customer has subscribed and the Region from where these services are operated.

   > **Note:**
   >
   > If **Region** selection drop-down is displayed, then you must select the appropriate Region as follows.
   > - US East (Ashburn) for United States of America
   > - Japan East (Tokyo) for Japan
   > - Australia east (Sydney) for Australia

   If you are not sure about the Region, contact My Oracle Support (MoS).
3. Under **Environment Details**, enter the following information:
   - **Name**: The name of the new environment or instance.
   - **Instance type**: Select from the following options:

  - **Production**: An environment that will be tagged as Production and can be used for Production activities.
  - **Non-production**: An environment that will be tagged as Non-production and which will be used for testing and development purposes. For example, a sandbox environment.

- **Admin email**: The email ID with which you have logged into the Cloud Console. You can also enter a different email ID that needs to be part of the cloud tenancy. For more details, see Managing Users.
- **Admin first name** and **Admin last name**: The first and last names of the Admin.

4. Click **Create**.
   The environment details are added to the Oracle Cloud Infrastructure Classic Console under the **Environments** tab (visible in the LHS menu). It may take a few hours for the State to change to Active. If there are any issues, you can raise a service ticket with My Oracle Support (MoS) .

After the environment becomes active i.e., the **State** column displays Active, you can click on name link to open the **Environment details** page, and view the details. Under **Environment Information**, click the Service console URL to create users and groups.

2.2.4 Access the Identity and Access Management

Oracle Cloud Infrastructure Identity and Access Management (IAM) provides identity and access management features such as authentication, single sign-on (SSO), and identity lifecycle management for Oracle Cloud as well as Oracle and non-Oracle applications, whether SaaS, cloud-hosted, or on-premises. Employees, business partners, and customers can access applications at any time, from anywhere, and on any device in a secure manner.

IAM integrates with existing identity stores, external identity providers, and applications across cloud and on-premises to facilitate easy access for end users. It provides the security platform for Oracle Cloud, which allows users to securely and easily access, develop, and deploy business applications such as Oracle Human Capital Management (HCM) and Oracle Sales Cloud, and platform services such as Oracle Java Cloud Service, Oracle Business Intelligence (BI) Cloud Service, and others. Administrators and users can use IAM to help them effectively and securely create, manage, and use a cloud-based identity management environment without worrying about setting up any infrastructure or platform details.

To add users to your Cloud Services, you need to navigate to the **Oracle Identity and Access Management (IAM)** Console.

To access the **IAM** Console, perform the following steps:

1. Browse to Cloud.Oracle.com.

   The Oracle Cloud Infrastructure console is the console where the information about your cloud order is available. You need to access the service link from the console to start using your service.

2. Enter the **Cloud Account Name** and click **Next** to access the **IAM Console**.
3. Click **Change tenancy** option if you want to use a different tenancy.
4. Select the **Identity domain** from the drop-down list and click **Next**.

   The IAM login page is displayed.

5. Log in with your User Name and Password.

As an Administrator, you can create users to have different access rights to the Cloud Service.
For example, the IAM Administrator has superuser privileges for an Oracle Identity and Access Management Domain. This administrator can create users, groups, group memberships, and so on.

2.2.5 Activate Application User Account

After an Application User is provisioned by their Administrator, they will receive an Account Activation email.

As an Application User, perform the following steps to login and activate your account:

1. Open the email you received from Oracle Cloud.
2. Review the information about your service in the email.
3. Click **Activate Your Account**. You will be prompted to change your Password on the initial login.
4. Enter your new credentials in the **Reset Password** window to activate your account. After the Password is successfully reset, the **Congratulations** window is displayed.
5. Access the Application URL that your Application Administrator shared with you.
6. Enter your credentials to sign into your account. The Welcome page is displayed.

2.2.6 Configuring Session Timeout

After you complete your tasks, you can sign out of your application. However, sometimes you might get automatically signed out due to session timeouts.

Let us understand how session timeouts work. When you sign in using your credentials, you're authenticated to use the application, and a session is established. During this session, you don't need to re-authenticate. But, for security purposes, your session is configured to be active for a predefined duration, which is called the session timeout period. Your sessions can expire due to various reasons such as leaving your application idle for a period longer than the timeout period. In such cases, you're automatically signed out of the application. Your timeout periods may vary on certain pages. For example, you may observe a longer timeout period on pages that automatically refresh or UIs that open in separate windows or tabs.

This table lists the various types of session timeouts you may experience. After the specified duration, your session expires, and you need to sign in again to continue your work.

Timeout Type	Description	Configurable	Timeout Duration
Session Lifetime Timeout	After you are authenticated in the application, if you are actively working on it, your session remains active for a predefined duration, referred to as the session lifetime timeout period. Your session ends after this period, even if you're using the application.	Yes	8 Hours (Default value)
Inactive Session Timeout	This type of timeout considers the duration you leave your application idle/ inactive. After this duration, System automatically terminates the session, and you are signed out of the session.	No	60 Minutes
Browser Inactivity Timeout	This type of timeout considers the duration you leave your browser idle. After this duration, your session is terminated by the System, which automatically	No	60 Minutes

2.2.6.1 How to configure Session Lifetime Timeout?

You can configure the Session Lifetime Timeout using your Identity Domain Settings in OCI Console. You need to have the Security Administrator Role mapped to you, to access and modify the settings.

To configure the session timeout:

1. Login with your Security Administrator Account.
2. Navigate to the Domain page. Click Settings and select Session Settings.
3. Specify the Session Duration under Session Limits. Enter the required value. By default, this is set to 480 Minutes.

Figure 2-3 Session Settings

2.3 Admin Console

Use the Admin Console to perform System Configuration and Identity Management. It is a single point of access to manage identity functions and view administrative features such as Metering, Audit Trail Report and other miscellaneous configuration details in the Profitability and Balance Sheet Management Cloud Service (PBSMCS).

To access the Admin Console, the PBSM Cloud Administrator must have granted you administrative privileges by mapping your user account to the Identity Administrator and Identity Authorizer user groups. These user groups are seeded in Oracle Identity Cloud Service (IDCS).

2.3.1 Introduction to Admin Console

Use the Admin Console to perform System Configuration and Identity Management. It is a single point of access to manage identity functions and view administrative features such as Metering, Audit Trail Report and other miscellaneous configuration details in the Cloud Service.

To access the Admin Console, the Application Cloud Administrator must have granted you administrative privileges by mapping your user account to the Identity Administrator and Identity Authorizer user groups. These user groups are seeded in Oracle Identity Cloud Service (IDCS).

When you access the Admin Console, you see the System Configuration and Identity Management tabs. Use these tabs to perform the following tasks:

2.3.1.1 Administrator Tasks

As an Administrator, use the Admin Console to perform the following tasks:

- View the Metering Report, Audit Trial Report, Object Storage, and Object Authentication (OAUTH) credential details in the System Configuration tab.
- Perform the Identity and Access Management operations in the Identity Management tab.

2.3.1.2 Authorizer Tasks

As an Authorizer, use the **Admin Console** to authorize the Identity and Access Management Operations in the **Identity Management** tab.

2.3.2 System Configuration

Using System Configuration, Administrators can view how many units of a service have been consumed. You can also view the following:

- The Audit Report to see what actions the users have performed in the application and when they have performed it
- The provisioned object storage details and the OAUTH authentication details.
- The production instance URL and the email ID of the login user.

The components are as follows:

- **Metering**: Click Metering to view the usage of services using the Metering Report.
- **Audit Trail Report**: Click **Audit Trail Report** to view the details of the user's login and logout details, the action they performed, the status of the action, and the date and time when the action was performed.
- **Component Details**: Click **Component Details** to view details such as the Object Storage, Pre-Authenticated Request (PAR) URL, and OAUTH authentication details.
- **Configurations**: Click **Configurations** to specify the instance name and the user or users who receive Emails related to operations tasks.

2.3.2.1 Metering

Use the **Metering** page to view the monthly unit usage of the number of transactions and the number of report types within the PBSM Cloud Service.

2.3.2.2 Component Details

Use the Component Details page to view the OCI Console, Object Storage Standard and Archive details, and OAUTH Authentication details.

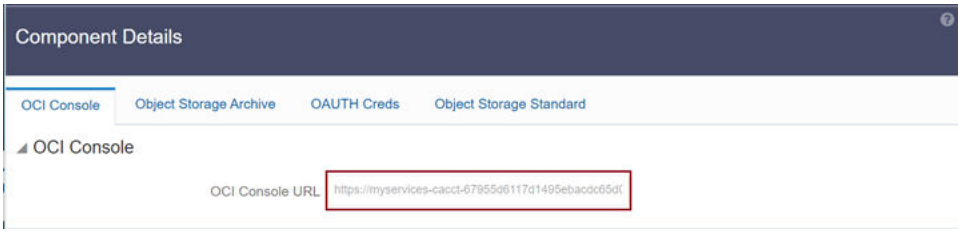
To access Component Details Window

1. Login to PBSM Admin Console.
2. Go to **System Configuration** tab, and click **Component Details** tile.

2.3.2.2.1 OCI Console

Click **OCI Console** tab to view and copy the OCI Console details.

Figure 2-4 OCI Console Page



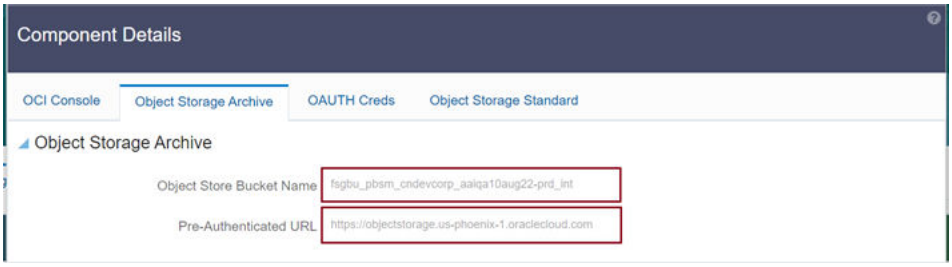
2.3.2.2.2 Object Storage Archive

When you provision an instance of the application, two buckets, a standard storage bucket and an archive storage bucket are automatically provisioned. The objects data that you want to load into the application for processing must be uploaded to the standard storage bucket.

Archive storage is used for storing objects which are not in use but must be retained and preserved for long periods of time. Objects are automatically moved from standard to archive storage, after 7 days.

Click **Object Storage Archive** Tab to view and copy the **Object Store Bucket Name** and the **Pre-Authenticated URL**.

Figure 2-5 Object Storage Archive Page



Field	Description
Object Store Bucket Name	The logical container in which objects are stored
Pre-Authenticated URL (PAR URL)	Request that enables you to access a bucket without providing any credentials.

2.3.2.2.3 OAUTH Creds

The OAUTH Creds is used for implementing authentication in cloud services.

Click OAUTH Creds tab to view and copy the OAUTH Client ID and OAUTH Client Secret details.

Figure 2-6 OAUTH Creds Page

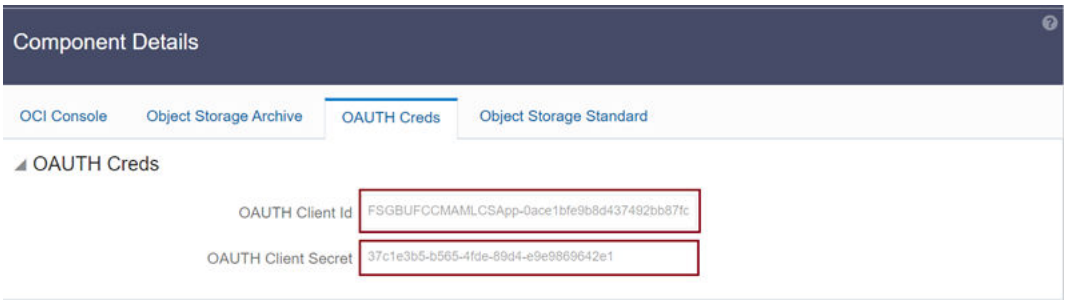


Table 2-1 Field Description

Field	Description
OAUTH Client ID	ID of the OAuth client used for OAuth authentication performed by IDCS while doing any API calls
OAUTH Client Secret	Password of the OAuth client secret used for OAuth authentication performed by IDCS while doing any API calls

2.3.2.2.4 Object Storage Standard

Object Storage Standard is used for storing objects which are currently in use and require fast, immediate, and frequent access.

Click Object Storage Standard Tab to view and copy the Object Store Bucket Name and the Pre-Authenticated URL.

Figure 2-7 Object Storage Standards Page

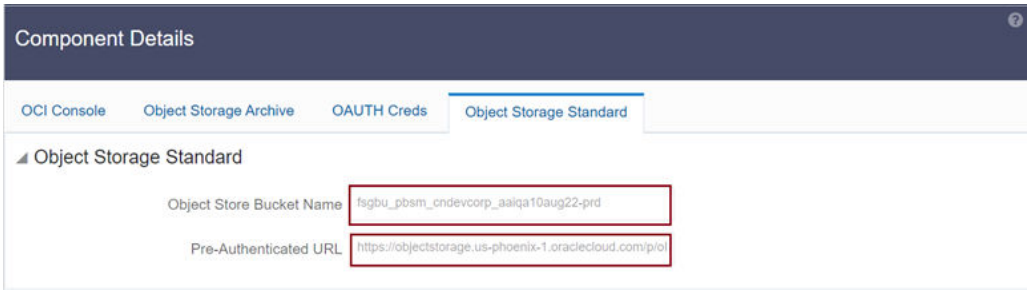


Table 2-2 Field Description

Field	Description
Object Store Bucket Name	The logical container in which objects are stored
Pre-Authenticated URL (PAR URL)	Request that enables you to access a bucket without providing any credentials.

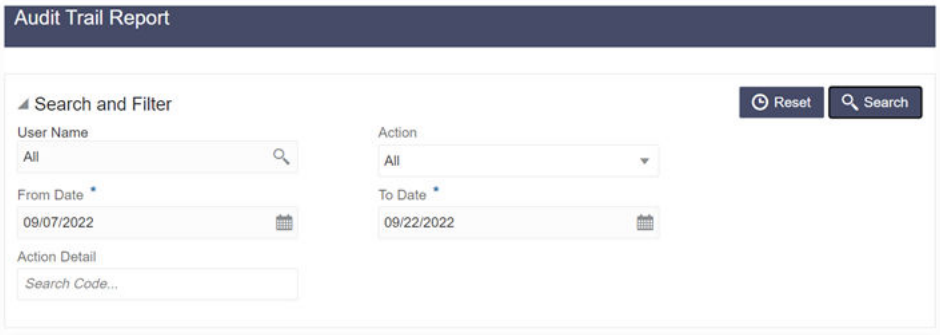
2.3.2.3 Audit Trail Report

You can use Audit Trail Report to view details of the user's activities such as Login, Add Action, Status of the Action, and the Machine Name.

To generate an Audit Trail Report, follow these steps:

1. Login to PBSM Admin Console.
2. Go to **System Configuration** tab, and click **Audit Trail Report** tile.
   The **Audit Trail Report** page is displayed.

Figure 2-8 Audit Trail Report



3. Enter the following values and click Search to generate the Audit Trail Report for all users or a specific user.

Table 2-3 Audit Trail Report Filters

Field	Description
User Name	Enter or Search for a user name to view the report for the selected user.
Action	Select the Action from the actions. to generate a report for a specific action.
From Date	Select the start date for the report.
To Date	Select the end date for the report.
Action Detail	Enter the string to search and filter the audit trail report for a specific action.

Figure 2-9 OAUTH Creds Page

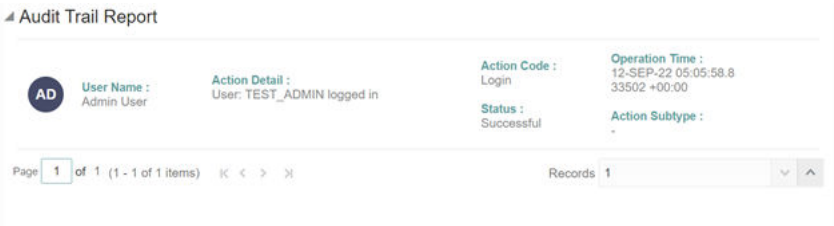


Table 2-4 Audit Trail Report Details

Field	Description
User Name	The user name selected in the User Name filter field.
Action Details	The action selected in the Action Detail filter field.
Action Code	The type of action performed by the user.
Status	The status of the action performed. The values are Successful or Failure.
Action Subtype	The sub type of the action.
Operation Time	The date and time of the action performed.

4. Click **Reset** to clear all values from the filter fields and enter new search criteria. The report filters are described in the following table:

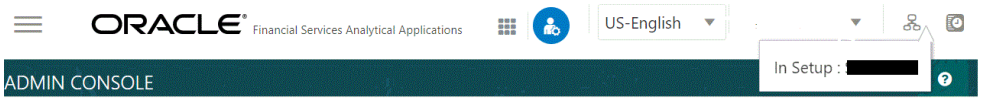
2.3.2.4 Configurations

Use the Configurations page to specify the values for the instance name and Email ID of the operations user.

To provide the values, follow these steps:

1. Enter the instance name in the Configurations page. For example, UAT, SIT, or PROD. You can provide alphanumeric characters and special characters such as hyphen (-) or underscore (_). The name you specify in this field is displayed when you click In Setup as shown in the following image:

Figure 2-10 Displayed Instance Name



This allows you to know the instance or setup you are working on at the moment, when you have multiple UI windows open simultaneously from different setups.

2. Enter one or more operations user's Email IDs in the Operations User Email-ID field of the Configurations window. The operations user receives Emails about any operations tasks such as batch or task failure. You can enter multiple email IDs separated by a comma (as comma-separated values).
3. Click **Save** after the changes.

2.3.2.5 Reports For Download

The Reports for Download tile in the Admin Console consists of a set of pre-defined and pre-configured reports that are available for download. You can use the functions in the interface such as filter and sort to segregate the data and drill down to the details of the reports. You can then investigate the information, analyze, and export the data in CSV format.

In the Admin Console, you can download reports from Reports for Download in the System Configuration tab.

2.3.2.5.1 Prerequisites

To use Reports for Download from the Admin Console, your user profile must be mapped to the Data Maintenance Admin group to access the Reports for Download menu.

2.3.2.5.2 Access Reports for Download

To access the Data View window, click **Reports for Download** in the **System Configuration** tab. The **Data Reporting - Data View Page** is displayed.

2.3.2.5.3 Data Reporting - Data View

You can view the list of reports available for download, from the Data Entry window. Use one of the following criteria to view various reports.

- To search reports, click the Search field to display the search criteria pop-up. Enter search terms in the Name, Description, or Created By fields, or use a combination of the fields, and click Search.
  The search result displays reports that match the criteria.
- To sort reports, click the Sort By drop-down and select from the options: Name, Description, or Created By.
  The reports are displayed in ascending order for the selected option.
- To view the report creation and modification details, click the More Options (three dots) icon of a report to display the pop-up with the details for the following:
  - **Created By** - Displays the User ID of the user who created the report.
  - **Created Date** - Displays the date and time of the creation of the report.
  - **Last Modified By** - Displays the User ID of the user who last modified the report.
  - **Last Modified Date** - Displays the date and time of the last modification of the report.
  - **Authorizer** - Displays the User ID of the authorizer who approved the report to be displayed in the window.
  - **Authorizer Comments** - Displays the comments entered by the authorizer when approving the report to be displayed in the window.
- To view a report, mouse over the record, and the hidden menu appears. Click View from the menu.
  The details for the selected report are displayed in the Data Entry window.

2.3.2.5.4 View the Report Details

The Data Entry window is the interface where you can apply filter conditions (optional) on the reports and export the details.

You can apply the filter conditions (optional) to the reports in the Attributes Selection tab, and the results are displayed in the Data Preview tab from where you can export the report in the CSV format.

The procedure to view report details is described as follows:

1. In the **Data View** window, click **Attributes Selection**.
   The Attributes Selection tab displays the details for the database table name in View Name and the table columns in Attribute Name. Expand View Name to display the columns in Attribute Name.
2. Click **Apply**.
   The Data Preview tab displays the report details. The number of records displayed in the Data Preview tab is pre-configured in the system. However, you can export the details in the CSV format by clicking Download CSV.

2.3.2.5.5 Apply a Custom Filter to the Data View

In addition to the reports that you can view, you can also use the filter provided in the Data View window to custom filter the data in the reports for analysis purposes.

To apply a custom filter to the data view, follow these steps:

1. Click **Launch Filter** Condition to display the Filter Condition window.
2. Select **AND** or **OR** from the drop-down.
3. Select the required report column from **Select a Column**.
4. Select the required condition from **Select a Condition**.
5. Click **+ Condition** to add more conditions and click **+ Group** to add more groups.

   Repeat the selection procedure to add details. To remove a condition or group, click Remove.
6. Click **Apply** in the **Filter Condition** window to save the custom filter condition.
7. Click **Apply** in the **Attributes Selection** tab.

   The Data Preview tab displays the results of the Attributes filtered in the Attributes Selection tab. The number of records displayed in the preview is pre-configured in the system. However, you can export the details in the CSV format by clicking Download CSV.

2.3.3 Identity Management

Using Identity Management, Administrators can manage fine-grained and coarse-grained entitlements that consist of fewer functions than fine-grained entitlements) entitlements. Authorizers can authorize the entitlement mappings. The components are as follows:

- **Users**: A user is a person who has access to and can perform specific actions based on the user group or groups they are mapped to. Before you can map a user to a user group, your Administrator must have created and authorized the user. After the user is authorized, they are added in the Users Summary page.

  Click **Users** to view the list of available users in the Users Summary page.
- **Groups**: Groups are a set of users that can perform specific activities. For example, the administrator role performs administrative activities. Any user who belongs to a specific user group can access the roles mapped to that user group.

  Click **Add** to add a user group or click **Groups** to view the list of user groups in the Groups Summary page.
- **Roles**: Roles are a set of functions grouped together and having specific privileges. Any user who belongs to a specific role can access functions mapped to the role. Click **Add** to add a role or click **Roles** to view the list of roles in the Roles Summary page.
- **Folders**: Folders are used to control access rights on defined list of objects. They are mapped to a specific Information Domain, Click **Folders** , to view the list of folders and edit the access rights, in the Folders Summary page.

- **Functions**: Functions enable users to perform a specific activity. Any user who belongs to a specific function can access the folders mapped to the function. Click **Functions** to view the list of functions in the Functions Summary page.

> **Note:**
>
> Only those user groups and roles which are authorized are displayed in the Groups Summary page and Roles Summary page, respectively.

2.3.3.1 Users Summary Page

The Users Summary page shows the list of available users. You can view the details of a user and map the user to one or more user groups.

To access Users Summary page, complete the following steps:

1. Click **Identity Management** tab in the **Admin Console** page.
2. Click the **Users** tile ( ).
   The **Users Summary** page is displayed.

Figure 2-11 Users Summary Page

3. Select a specific User Name in the Users Summary page and then click **Details** to view the associated User ID and User Name.
4. Select a User name and click Mapped Groups to view the list of groups that are mapped to the particular user. For more information about mapped groups, refer to Mapped and Unmapped Groups.
   You can also Unmap an user from a specific group. For more information, refer to Mapped and Unmapped Groups.

To search for a specific user, type the first few letters of the user name that you want to search in the Search box and click Search. The search results display the names that consist of your search string in the list of available users.

At the bottom of the page, you can enter the number of entries that are available on a single page in the Records box. You can increase or decrease the number of entries that are

displayed using the up and down arrows. To navigate between pages in the View bar, use the following buttons:

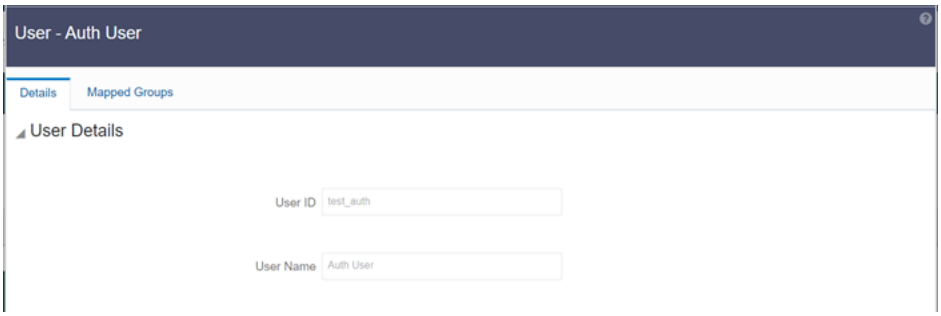
- Use the First page button to view the entries in the first page.
- Use the Previous page button to view the entries in the previous page.
- Use the Next page button to view the entries in the next page.
- Use the Last page button to view the entries in the last page.

You can also navigate to the desired page. To do this, enter the page number in the View bar control and press Enter.

2.3.3.1.1 User Details

Click a specific User listed in the User Summary page and click Details to view the User ID and the User name of that user.

Figure 2-12 User Details Page



2.3.3.1.2 Mapped and Unmapped Groups

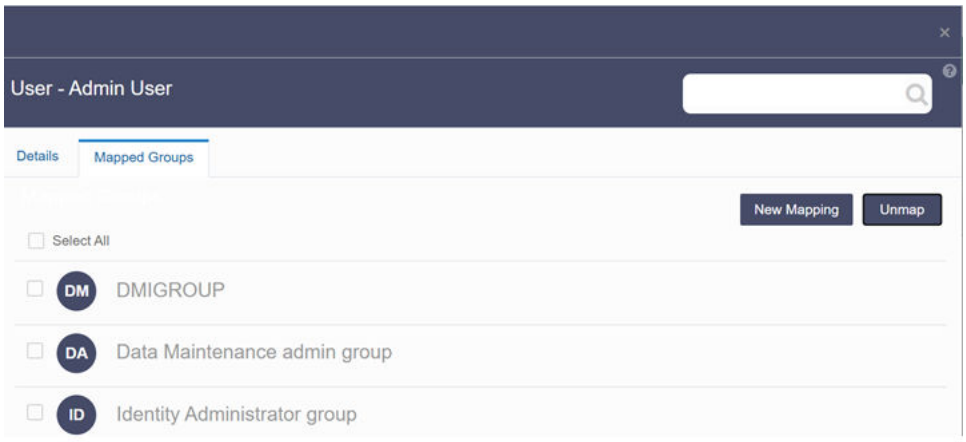
If you are an Administrator, you can map and unmap a user to a User group, from the **Users Summary** page.

2.3.3.1.2.1 Mapped Groups

Complete the following steps, to map an user to a User Group.

1. Select the **User name** in the **Users Summary** page.
2. Select **Mapped Groups**.
   The list of groups mapped to the specific user is displayed.

Figure 2-13 Mapped Groups



3. Click **New Mapping**.
   After you click New Mapping, the list of user groups you can map the user to appears in the **Available Groups** page.
4. Click **Map**.
   A confirmation message is displayed after successful mapping. The mapping will be completed after authorization.

If you are an Authorizer and want to authorize a mapping, follow these steps:

- In **Mapped Groups**, select the user group name.
- Click **Authorize** to authorize the user-user group mapping.
  Click **Reject** to cancel the authorization request.

2.3.3.1.2.2 Unmapped Groups

To unmap a user from a user group, complete the following steps.

1. Select the User name in the Users Summary page.
2. Select **Mapped Groups**.
   The list of groups mapped to the specific user is displayed.
3. Select the check box corresponding to a User Group or click Select All to select all the available User groups.
4. Click **Unmap**.
   A confirmation message is displayed after successful unmapping. The mapping will be completed after authorization.

If you are an authorizer and want to authorize a mapping, follow these steps:

1. In Mapped Groups, select the user group name.
2. Click **Authorize** to authorize the user-user group unmapping.
   Click **Reject** to cancel the authorization request.

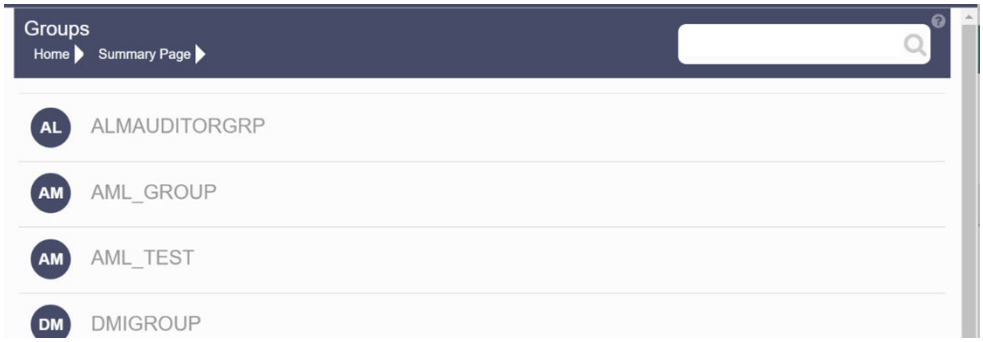
2.3.3.2 Groups Summary Page

The Groups Summary page shows the list of available groups. You can view the details of a group and map the group to one or more user Roles.

To access Groups Summary page, complete the following steps:

1. Click **Identity Management** tab in the **Admin Console** page.
2. Click the **Groups** tile ( ).
   The Groups Summary page is displayed.

Figure 2-14 Groups Summary Page



3. Select a specific Group Name in the Groups Summary page and then click Details to view the associated Group ID, Group Name and Group Description. For more information refer to Group Details.
4. Select a Group name and click Mapped Roles to view the list of Roles that are mapped to the particular Group. For more information about mapped groups, refer to Mapped and Unmapped Roles.
   You can also Unmap a group from a specific Role. For more information, refer to Mapped and Unmapped Roles.

To search for a specific user group, type the first few letters of the user group name that you want to search in the search box and click Search. The search results display the names that consist of your search string in the list of available users.

At the bottom of the page, you can enter the number of entries that are available on a single page in the Records box. You can increase or decrease the number of entries that are displayed using the up and down arrows. To navigate between pages in the View bar, use the following buttons:

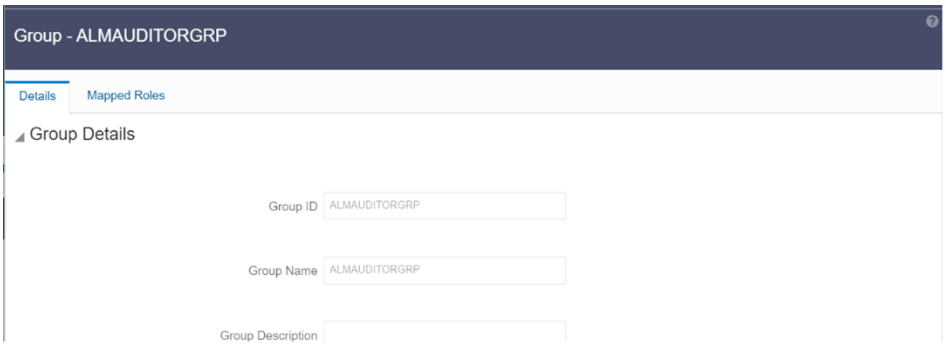
- Use the First page button to view the entries in the first page.
- Use the Previous page button to view the entries in the previous page.
- Use the Next page button to view the entries in the next page.
- Use the Last page button to view the entries in the last page.

You can also navigate to the desired page. To do this, enter the page number in the View bar control and press Enter.

2.3.3.2.1 Group Details

Select the Group name in the Groups Summary page and then select Details to view the Group ID, Group Name and Group Description.

Figure 2-15 Group Details Page



2.3.3.2.2 Mapped and Unmapped Roles

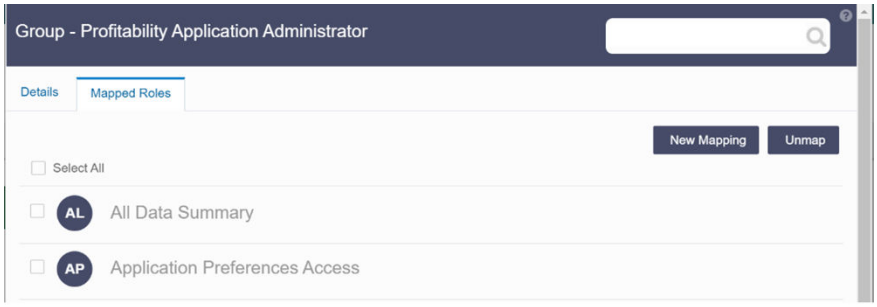
If you are an administrator, you can map and unmap a Group to a User Role, from the Groups Summary page.

2.3.3.2.2.1 Mapped Roles

Complete the following steps, to map an user to a User Group.

1. Select the User name in the Groups Summary page.
2. Select Mapped Roles.
   The list of Roles mapped to the specific user is displayed.

Figure 2-16 Mapped Roles



3. Click **New Mapping**.
   After you click New Mapping, the list of user Roles you can map the group to appears in the **Available Roles** page.
4. Select the check box corresponding to a User Role or click **Select All** to select all the available User Roles.
5. Click **Map**.
   A confirmation message is displayed after successful mapping. The mapping will be completed after authorization.

If you are an authorizer and want to authorize a mapping, follow these steps:

1. In **Mapped Roles**, select the user Role name.
2. Click **Authorize** to authorize the user-user group mapping.
   Click **Reject** to cancel the authorization request.

2.3.3.2.2.2 Unmapped Roles

To unmap a Group from a Role, complete the following steps.

1. Select the Group name in the **Groups Summary** page.
2. Select **Mapped Roles**.
   The list of Roles mapped to the specific user is displayed.
3. Select the check box corresponding to a User Role or click **Select All** to select all the available User Roles.
4. Click **Unmap**.
   A confirmation message is displayed after successful unmapping. The mapping will be completed after authorization.

If you are an authorizer and want to authorize a mapping, follow these steps:

1. In **Mapped Roles**, select the user group name.
2. Click **Authorize** to authorize the user-user Role unmapping.
   Click **Reject** to cancel the authorization request.

2.3.3.2.3 Available Roles

Click New Mapping to view the list of roles you can map to the user group.

To select a role, select the check box corresponding to the role. To select all roles, select the check box marked **Select All**.

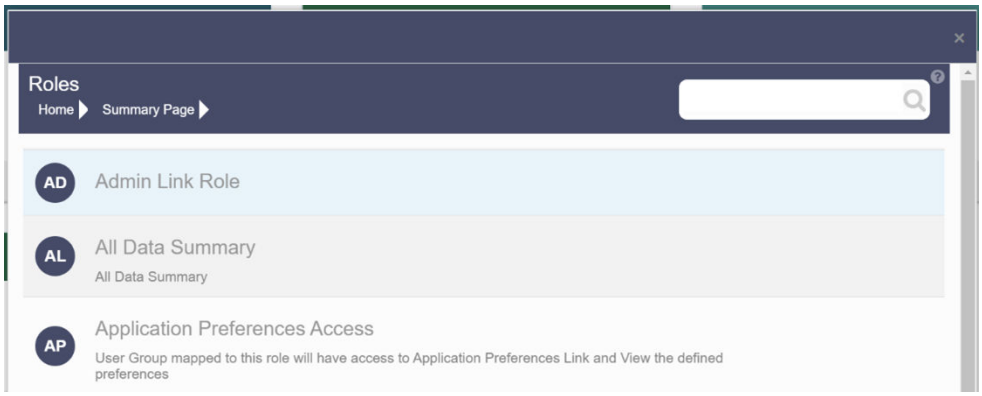
2.3.3.3 Roles Summary Page

The Roles Summary page shows the list of available User Roles. You can view the details of a Role and map the Role to one or more user Functions.

To access Roles Summary page, complete the following steps:

1. Click **Identity Management** tab in the **Admin Console** page.
2. Click the **Roles** tile ().
   The **Roles Summary** page is displayed.

Figure 2-17 Roles Summary Page



3. Select a specific Role Name in the Roles Summary page and then click Details to view the associated Role Code, Role Name and Role Description. For more information refer to Role Details.
4. Select a Role name and click Mapped Functions to view the list of Functions that are mapped to the particular Role. For more information about mapped Functions, refer to Mapped and Unmapped Functions.
   You can also Unmap a Role from a specific Function. For more information, refer to Mapped and Unmapped Functions.

To search for a specific role, type the first few letters of the role name that you want to search in the Search box and click Search. The search results display the names that consist of your search string in the list of available users.

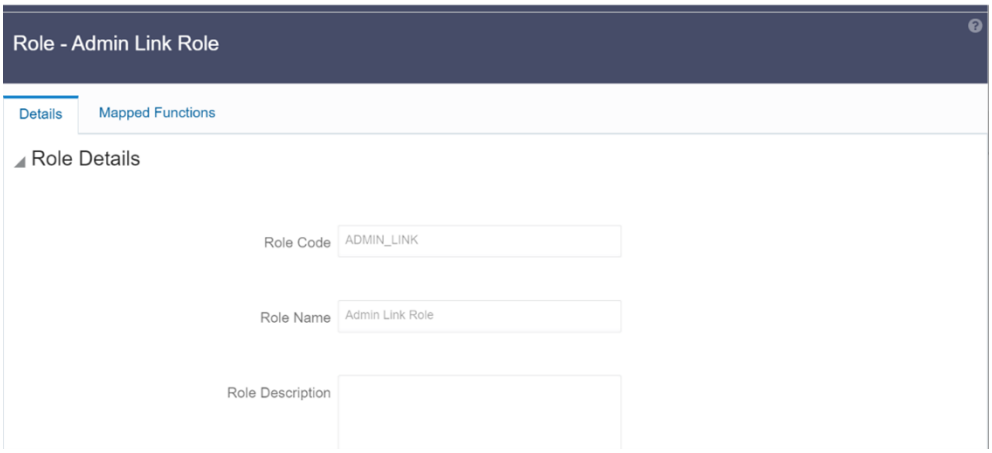
At the bottom of the page, you can enter the number of entries that are available on a single page in the Records box. You can increase or decrease the number of entries that are displayed using the up and down arrows. To navigate between pages in the View bar, use the following buttons:

- Use the First page button to view the entries in the first page.
- Use the Previous page button to view the entries in the previous page.
- Use the Next page button to view the entries in the next page.
- Use the Last page button to view the entries in the last page.
  You can also navigate to the desired page. To do this, enter the page number in the View bar control and press Enter.

2.3.3.3.1 Roles Details

Click a specific Role listed in the Roles Summary page and click Details to view the Group ID, Group name and the description of that group.

Figure 2-18 Roles Details Page



2.3.3.3.2 Mapped and Unmapped Functions

If you are an administrator, you can map and unmap a User Role to a Function, from the Roles Summary page.

2.3.3.3.2.1 Mapped Functions

Complete the following steps, to map a Role to a Function.

1. Select the Role name in the **Roles Summary** page.
2. Select **Mapped Functions**.
   The list of Functions mapped to the specific user is displayed.

Figure 2-19 Mapped Functions

3. Click **New Mapping**.
   After you click New Mapping, the list of user Functions you can map the Role to appears in the **Available Functions** page.
4. Select the check box corresponding to a Function or click Select All to select all the available Functions.
5. Click **Map**.
   A confirmation message is displayed after successful mapping. The mapping will be completed after authorization.

If you are an authorizer and want to authorize a mapping, follow these steps:

1. In Mapped Functions, select the Function Name.
2. Click **Authorize** to authorize the Role Function mapping.
   Click **Reject** to cancel the authorization request.

2.3.3.3.2.2 Unmapped Functions

To unmap a Role from a Function, complete the following steps.

1. Select the Role name in the **Roles Summary** page.
2. Select **Mapped Functions**.
   The list of Functions mapped to the specific Role is displayed.
3. Select the check box corresponding to a Function or click Select All to select all the available Functions.
4. Click **Unmap**.
   A confirmation message is displayed after successful unmapping. The mapping will be completed after authorization.

If you are an authorizer and want to authorize a mapping, follow these steps:

1. In **Mapped Functions**, select the Function Name
2. Click **Authorize** to authorize the Role Functions unmapping.
   Click **Reject** to cancel the authorization request.

2.3.3.4 Folders Summary Page

You can create multiple Folders, store objects and assign access rights based on the security level of the user.

The Folders Summary page shows the list of available groups. You can view the details of a group and map the group to one or more user Roles.

To access Folders Summary page, complete the following steps:

- Click **Identity Management** tab in the **Admin Console** page.
- Click the **Folders** tile, to access the Folders Summary page.
  The **Folders Summary** page is displayed.

Figure 2-20 Folders Summary Page

Select a specific Folder Name in the Folders Summary page and then click Details to view the associated Folder ID, Folder Name and Folder Type. For more information refer to Folder Details.

To search for a specific user group, type the first few letters of the user group name that you want to search in the search box and click Search. The search results display the names that consist of your search string in the list of available users.

At the bottom of the page, you can enter the number of entries that are available on a single page in the Records box. You can increase or decrease the number of entries that are displayed using the up and down arrows. To navigate between pages in the View bar, use the following buttons:

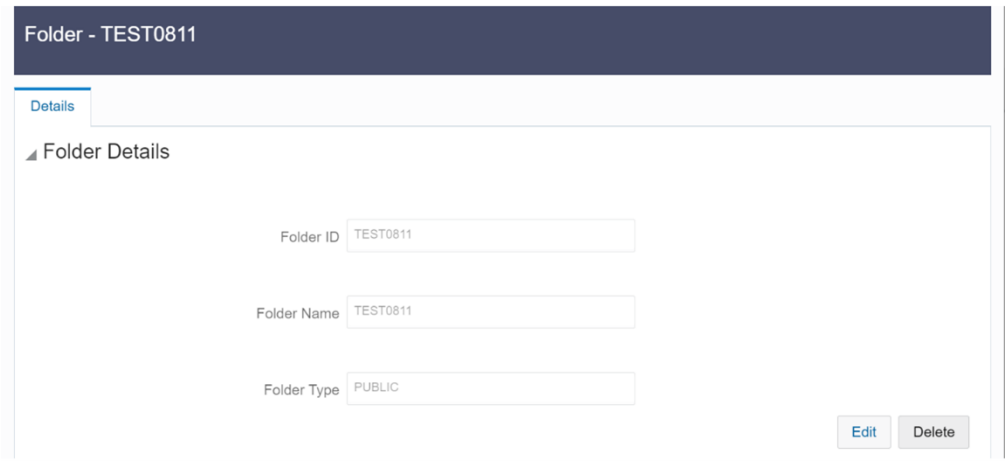
- Use the First page button to view the entries in the first page.
- Use the Previous page button to view the entries in the previous page.
- Use the Next page button to view the entries in the next page.
- Use the Last page button to view the entries in the last page.

You can also navigate to the desired page. To do this, enter the page number in the View bar control and press Enter.

2.3.3.4.1 Folder Details

Select the Folder name in the Folders Summary pageand then select Details to view the Folder ID, Folder Name, and Folder Type of the selected Folder.

Figure 2-21 Folder Details



2.3.3.4.1.1 Editing Folder Details

You can edit the Folder Type from the folder details page.

1. Click **Edit** button on the **Folder Details** page.
2. Set the Folder Type to one of the following options:
   - **Public**- These folders are accessible to all users

- **Private** - These Folders can be viewed only by the users associated with that folder.
- **Shared** - These folders can be accessed by those users mapped to specific User groups. These User groups are mapped to specific roles that are associated with the folder.

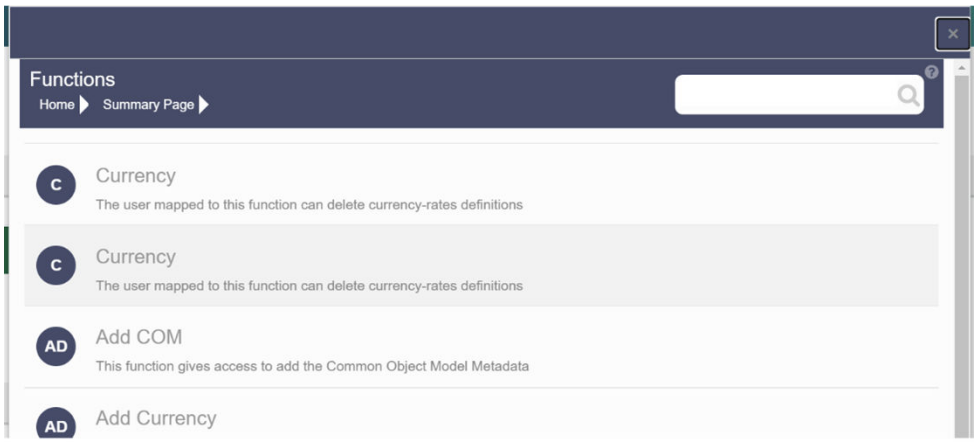
2.3.3.5 Functions Summary Page

The Functions Summary page shows the list of available functions. You can view the Function details.

To access Functions Summary page, complete the following steps:

1. Click **Identity Management** tab in the **Admin Console** page.
2. Click the **Functions** tile. The **Functions Summary** page is displayed.

Figure 2-22 Functions Summary page



3. Select a specific Folder Name in the Functions Summary page and then click Details to view the associated Function ID, Function Name and Function Description. For more information refer to Function Details.

To search for a specific function, type the first few letters of the function name that you want to search in the search box and click Search. The search results display the names that consist of your search string in the list of available users.

At the bottom of the page, you can enter the number of entries that are available on a single page in the Records box. You can increase or decrease the number of entries that are displayed using the up and down arrows. To navigate between pages in the View bar, use the following buttons:

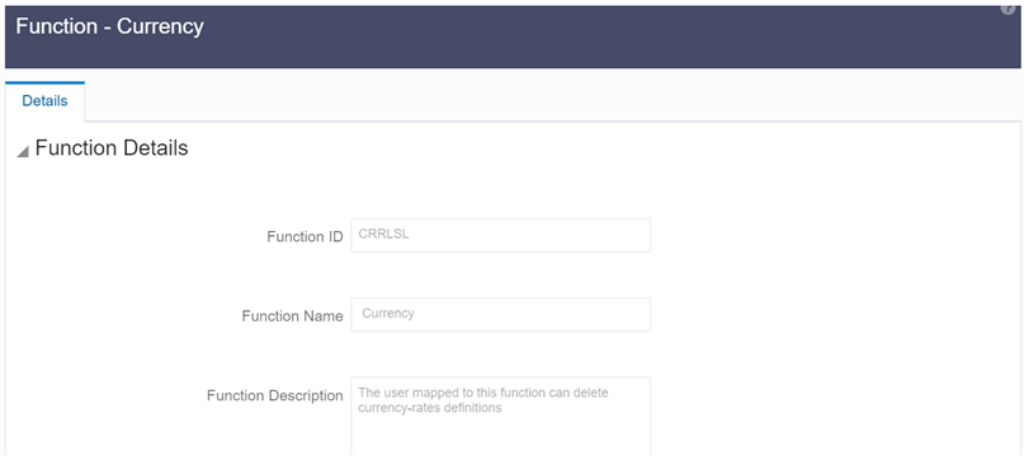
- Use the First page button to view the entries in the first page.
- Use the Previous page button to view the entries in the previous page.
- Use the Next page button to view the entries in the next page.
- Use the Last page button to view the entries in the last page.

You can also navigate to the desired page. To do this, enter the page number in the View bar control and press **Enter**.

2.3.3.5.1 Function Details

Select the function name in the Functions Summary page and then select Details to view the Function ID, Function Name, and Function Description of the selected function.

Figure 2-23 Function Details



2.3.3.5.2 Mapped and Unmapped Functions

If you are an administrator, you can map and unmap a User Role to a Function, from the Roles Summary page.

2.3.3.5.2.1 Mapped Functions

Complete the following steps, to map a Role to a Function.

1. Select the Role name in the **Roles Summary** page.
2. Select **Mapped Functions**.
   The list of Functions mapped to the specific user is displayed.

Figure 2-24 Mapped Functions

3. Click **New Mapping**.

After you click New Mapping, the list of user Functions you can map the Role to appears in the **Available Functions** page.

4. Select the check box corresponding to a Function or click Select All to select all the available Functions.
5. Click **Map**.
   A confirmation message is displayed after successful mapping. The mapping will be completed after authorization.

If you are an authorizer and want to authorize a mapping, follow these steps:

1. In Mapped Functions, select the Function Name.
2. Click **Authorize** to authorize the Role Function mapping.
   Click **Reject** to cancel the authorization request.

2.3.3.5.2.2 Unmapped Functions

To unmap a Role from a Function, complete the following steps.

1. Select the Role name in the **Roles Summary** page.
2. Select **Mapped Functions**.
   The list of Functions mapped to the specific Role is displayed.
3. Select the check box corresponding to a Function or click Select All to select all the available Functions.
4. Click **Unmap**.
   A confirmation message is displayed after successful unmapping. The mapping will be completed after authorization.

If you are an authorizer and want to authorize a mapping, follow these steps:

1. In **Mapped Functions**, select the Function Name
2. Click **Authorize** to authorize the Role Functions unmapping.
   Click **Reject** to cancel the authorization request.

3
Dimension Management

Dimension Management facilitates you to categorize data into a single object as a Member; define levels and aggregate data to form the Hierarchies, and distinguish each member by defining the required Attributes.

The roles mapped to Dimension Management are as follows:

- Dimension Advanced
- Dimension Authorization
- Dimension Read Only
- Dimension Write

3.1 Components of Dimension Management

You can create and manage the following Object Definitions using from Dimension Management:

- Members
- Attributes
- Hierachy

3.2 Object Security

Object security helps to secure data and also to decide what each user can access. You can apply Object security to various object definitions like Hierarchy definitions, Filters, Expressions and Migration definitions.

You can assign specific user roles and functions to user groups, to implement Object Security. To assign user roles and functions, Seeded User Groups and Seeded User Roles are mapped to the User Groups. If you are using the Seeded User Groups, the security to access objects depends on the associated User Groups.

Map your User Group to the folder in case of public or shared folder, for creating/editing/copying/removing an object in Dimension Management Module. You should also be the the owner of the folder in case of Private Folder. Additionally, the WRITE role should be mapped to your User Group.

To access the link and the Summary page, map your User Group to ACCESS Role. You can view all objects created in Public Folders - Shared Folders to which you are mapped and Private Folders for which you are the owner.

3.3 Members

Dimension Members refer to the individual items that constitute a dimension when data is categorized into a single object such as Product, Organization, Time, and so on. Members are available within Dimension Management Section.

3.3.1 Member Summary Page

The list of created member definitions are displayed in the Member Summary.

To access the Member Summary Page, complete the following procedure.

1. From the left menu, click **Common Object Maintenance.**
2. Select Dimension Management and select **Member**.
   The **Member Summary Page** containing the following details is displayed.
   - **Alphanumeric Code** - The Alphanumeric Code assigned to a Member.
   - **Numeric Code** - The Numeric Code assigned to a Member.
   - **Name** - The unique Member Name.
   - **Is Leaf** - The leaf node status of the member definition.
     - **Yes** - The member is set as a leaf node in any hierarchy and child cannot be added to this node.
     - **No** - The member is a not a leaf and can have Child Nodes.
   - **Action** - Click to View, Edit, Copy or Delete a Member Definition.

3.3.2 Creating Member Definitions

You can add new Member Definitions from the Member Summary page.

To create a Member Definition in the Members Page, complete the following steps.

1. To create a Member definition, click the **Add** in the Member Summary Page. The Add Member Definition Page is displayed.
2. Enter the following **Member Details** as described in the following table:
   - **Dimension** - Select the Dimension to be associated with the new Member.
   - **Alphanumeric Code** - The Alphanumeric Code to be assigned to the new Member Definition.
     You can enter up to 100 characters. We recommend using only Underscore (“_”) as a special character.
   - **Numeric Cod**e - The Numeric Code to be assigned to the new Member Definition. You can enter the value between 0 and 999,999,999 manually or click **Generate**, to auto-generate a unique code.
     If you enter the value manually, it is assigned after validation.
   - **Name** - The unique Member Definition Name.
     You can enter up to 100 characters. All characters are allowed except " & ' and " ' ".
   - **Description** - A brief description about the Member Definition.
     You can enter up to 100 characters. All characters are allowed except " & ' and " ' ".
   - **Is Leaf** - Check this option if the member is a leaf of another member. By default, it is set to **Yes**.
     - **Yes** - The member can be used as a Leaf Node in any hierarchy and Child cannot be added to this node.

– **No** -The Member is not set as a Leaf and can have Child Nodes.

> **Note:**
>
> If a Member is set as a Non-Leaf and is associated with Child Nodes, it cannot be set as a Leaf again.

- **Enabled** - This field is set to **Yes** by default and can be edited only after the Member is created. To edit a Member, refer Editing Member Definition Details.

> **Note:**
>
> You can change the option to **No** only when the particular member is not used in any hierarchy. The disabled members will not be displayed in Hierarchy Rules, or utilities which are based on Hierarchies, such as Hierarchy Filters and Hierarchical Assumption Browsers used in applications.

- **Copy Attribute Assignment** - Attach an existing attribute to this new Member Definition.

3. Click **Copy Attribute Assignment** ().

   The **Attributes Page** associated with the selected Dimension is displayed. This field can be left blank so that the Member Attributes Panel can be filled in without considering the values already assigned.

   Click **Search** to search for a specific Member based on Alphanumeric Code, Numeric Code, Name, Description, Enabled status, Is Leaf status, Attribute Name, or Attribute Value. You can also enter any of these parameters as Keywords in the Search field and click **Search**.

4. Locate the Attribute to be copied and click Move and select **Copy**, located under **Actions**.

5. Click **Save**.

3.3.3 Managing Member Definitions

You can View, Edit, Copy, and Delete the existing Member Definitions from the Member Summary Page.

In the Members Summary Page, highlight a specific Member Definition and click the **Action**. The following Options are displayed:

- **View** - View the **Member Details** for a specific Member Definition.
- **Edit** - Edit the **Member Details** for a specific Member Definition.
- **Copy** - Copy the Member Definition Details and create another Member Definition by changing Alphanumeric Code, Numeric Code and Name.
- **Delete** - Delete the Member Definition Details.

3.3.3.1 Viewing Member Definition Details

You can view the details of an individual Member Definition, from Member Summary page.

To view a Member Definition, the Read Only Role should be mapped to your User Group.

You can view the details of an individual Member Definition, using the following procedure:

1. Highlight the Member Definition and click the **Action**.
2. Click the **View** button.

   The Member Definition Page is displayed with the details Dimension, Alphanumeric Code, Numeric Code, Name, Is Leaf and Enabled status.

3.3.3.2 Editing Member Definition Details

To edit the existing Member Definition details, the Write Role should be mapped to your User Group.

You can edit individual Member Definition Details, using the following procedure:

1. Highlight the Member Definition and click the **Action**.
2. Click the **Edit** button.

   The Member Definition Page is displayed with the details Dimension, Alphanumeric Code, Numeric Code, Name, Is Leaf and Enabled status.

   Edit the required information and click **Save**.

3.3.3.3 Copying Member Definition Details

To copy the Member Definition Details, the Write Role should be mapped to your User Group.

You can copy individual Member Definition Details, to recreate another new Member Definition, using the following procedure:

1. Highlight the Member Definition and click the **Action**.
2. Click the **Copy** button.

   The **Member Definition Page** is displayed with the details Dimension, Alphanumeric Code, Numeric Code, Name, Is Leaf and Enabled status.

   Edit the unique information such as Name, Alphanumeric Code, Numeric Code and click **Save**.

3.3.3.4 Deleting Member Definition Details

To delete a Member Definition, the Write Role should be mapped to your User Group.

You can delete individual Member Definition Details, using the following procedure:

1. Highlight the Member Definition and click the **Action**.
2. Click the **Delete** button.

The Member Definition is deleted after confirmation.

3.4 Attributes

Attributes refers to the distinguished properties or qualifiers that describes a Dimension Member. Attributes are applicable to key dimensions only.

3.4.1 Attribute Summary Page

The list of created attribute definitions are displayed in the Attribute Summary.

To access the Attribute Summary Page, complete the following procedure:

1. From the left menu, click **Common Object Maintenance.**
2. Select Dimension Management and select **Attribute**.

The **Attribute Summary Page** containing the following details is displayed.

The Attribute Summary Page provides the list of Member Definitions with the following details:

Field	Description
Code	The Numeric Code assigned to the Attribute Definition.
Name	The unique Attribute Definition Name.
Data Type	The Data Type associated with the Attribute. The Data Type is set to Date, Dimension, Number or String.
Required	• **Yes** – Attribute Value is mandatory for the Dimension Member. • **No** - The Attribute value is optional for the Dimension Member.
Seeded	• **Yes** - This Attribute is seeded by the service. • **No** - The Attribute is created by the user.
Action	Click to View, Edit, Copy or Delete an Attribute Definition.

3.4.1.1 Navigating Attribute Summary Page

To access records in a Summary Page, you can search, sort and navigate to multiple pages.

3.4.2 Creating Attribute Definition

To create a new Attribute for a dimension, complete the following steps:

1. Click the **Add** in the Attribute Summary Page.

   The **Add Attribute Definition** Page is displayed.
2. Enter the Attribute Details as described in the following table:

Field	Description
Attribute Details	

Field	Description
Dimension	Select the Dimension for which the new Attribute is getting created.
Numeric Code	The Numeric Code to be assigned to the new Attribute Definition. You can enter the value manually or click **Generate**, to auto-generate a unique code. If you enter the value manually, the system will verify if the value is unique and assigns it. You can enter any number between 0 and 999,999,999.
Name	The unique Attribute Definition Name. You can enter up to 100 characters. All characters are allowed except " & ' and " ' ".
Alphanumeric Field Value	The name of physical column name that will be used to store attribute value in the Report Dimension Table. You can enter up to 100 characters. We recommend using only Underscore (“_”) as a special character.
Description	A brief description about the Attribute Definition. You can enter up to 100 characters. All characters are allowed except " & ' + @ and ~.
Attribute Properties	
Data Type	Select the Data Type as Date, Dimension, Number, or String from the drop-down list. If Number is selected as the Data Type: Enter a Scale value >= 0. If it is left as 0, values for this attribute will be limited to Integers. If you wish to enable decimal entries for this attribute, the maximum Scale Value must be > 0 and <= the scale defined for NUMBER in the dimension's underlying attribute table. The maximum value of the NUMBER is set to 22.
Dimension	Select the Dimension to be associated with the new Attribute Definition. This field is enabled only if the Data Type is set to Dimension.

Field	Description
Default Value	The Default Value is set based on the selected Data Type. The Default Value is mandatory if this attribute is set as a Required Attribute. • If Dimension is set as the Data Type, select the Default Value from the drop-down list of members mapped to the selected Dimension. • If NUMBER is selected as the Data Type, enter a Numeric Value in the Default Value field, and it must be consistent with the Scale you have defined. • If DATE is selected as the Data Type: Click button to select a valid date as the Default Value from the calendar. • If STRING is selected as the Data Type: Enter the Alphanumeric Value in the Default Value field. The Maximum characters allowed in Default Value field for String Data Type is 1000.
Required Attribute	• **Yes** - This Attribute is mandatory for the associated Dimension Members. • **No** - This is an optional Attribute for the associated Dimension Members. This field is disabled in Add and Edit Modes if any members already exist for the Dimension on which this attribute is defined.
Seeded Value	• **Yes** – This is selected only when the attribute is seeded out of box by the Cloud Service. • **No** – Always select this when you are creating a new attribute.

3. Click **Save**.

3.4.3 Managing Attribute Definitions

You can view, edit, copy and delete the existing Attribute Definitions from the Summary Page.

In the Attribute Summary Page, highlight a specific Attribute Definition and click the **Action**. The following Options are displayed.

Field	Description
View	View the **details** for a selected Attribute.
Edit	Edit theselected Attribute.
Copy	Copy the Attribute Definition Details and create another Attribute Definition by changing the unique values like Alphanumeric Field Value, Numeric Code and Name.
Delete	Delete the selected Attribute.

3.4.3.1 Viewing Attribute Definition

You can view individual Attribute Definition Details at any given point. The Read Only Role should be mapped to your User Group.

To view the existing Attribute Definition details in the Attribute page:

1. Highlight the Attribute Definition and click **Action**.
2. Click **View** .

   The **Attribute Definition** Page is displayed with the details Code, Name, Data Type, Required and Seeded status.

3.4.3.2 Copying Attribute Definition

The Copy Attribute Definition facilitates you to quickly create a new Attribute Definition based on the existing attributes or by updating the values of the required attributes.

To copy an existing Attribute Definition, the Write Role should be mapped to your User Group.

Refer to the following steps, to copy an attribute definition.

1. Highlight the Attribute Definition and click **Action**.
2. Click **Copy**.

   The Attribute Definition Page is displayed with the details: Code, Name, Data Type, Required and Seeded status.

   Edit the unique information such as Name, Alphanumeric Field Value, Numeric Code and click **Save**.

3.4.3.3 Deleting Attribute Definition

You can remove the Attribute Definitions which are not required in the system by deleting from the Attributes summary.

To delete an attribute definition, he Write role should be mapped to your User Group.

1. Highlight the Attribute Definition and click the **Menu** button.
2. Click the **Delete** button.

   The Attribute Definition is deleted after confirmation.

> **Note:**
>
> You cannot delete a definition if any dependency like Attribute, Hierarchy or Filter is attached to it. Detach the dependency before deleting the definition.

3.5 Hierarchy

Hierarchies refer to Dimension Members that are arranged in levels, with each level representing the aggregated total of the data from the level below. One dimension type

can have multiple hierarchies associated with it. Hierarchies are available within the Dimension Management Section.

A Default Hierarchy definition is required to support BI Users to perform multi dimensional analysis, in the BI reporting. The hierarchy name of a default hierarchy definitions are suffixed with the term **System Hierarchy**. You can only view the details of the default hierarchy, from the Hierarchy summary page. All orphan members under their corresponding default hierarchy, are automatically updated, when they are added/deleted to/from the system.

3.5.1 Hierarchy Summary Page

The list of created Hierarchy definitions are displayed in the Hierarchy Summary.

To access the Hierarchy Summary Page, complete the following procedure.

1. From the left menu, click **Common Object Maintenance.**
2. Select Dimension Management and select **Hierarchy**.

The Hierarchy Summary Page provides the list of Member Definitions with the following details:

Field	Description
Name	The unique Hierarchy Name.
	Note: The name of a default hierarchy is always suffixed with the term **System Hierarchy**.
Description	The brief description about the Hierarchy.
Folder	The folder in which the Hierarchy is stored.
Dimension	The Dimension associated with the Hierarchy.
Tag	Tags are labels that help to simplify the data search and locate the required details.
Action	Click to View, Edit, Copy or Delete a Hierarchy Definition.

3.5.1.1 Navigating Hierarchy Summary Page

To access records in a Summary Page, you can search, sort and navigate to multiple pages.

3.5.2 Creating Hierarchy Definitions

To create a Hierarchy Definition in the Hierarchy Summary Page, complete the following steps.

1. To create a Hierarchy definition, click **Add** in the Hierarchy Summary Page.
   The **Add Hierarchy Definition** Page is displayed.

   Enter the **Hierarchy Details** as described in the following table:

Table 3-1 Field Description

Field	Description
Basic Details	
Name	The unique Hierarchy Definition Name. **Note:** You can enter up to 100 characters. All characters are allowed except " & ' and " ' ".
Description	A brief description about the Hierarchy Definition. **Note:** You can enter up to 100 characters. All characters are allowed except " & ' + @ and ~.
Hierarchy Sub Type	By default, the sub type is set to **Member based** and cannot be changed.
Folder	Select the Folder in which the Hierarchy is to be stored.
Based On	
Dimension	Select the Dimension to be associated with the new Hierarchy Definition.
Start Date	The date from which this Hierarchy will be activated. By default the Start Date is set to the current System Date.
Data Grid	
Hierarchy View	The Members associated with the selected Dimension are displayed. You can sort this list in Ascending/ Descending order, expand or collapse the list to view in details and search for a specific Member. You can focus on a Member to view the Member Properties. You can add a Child or add a Sibling to an existing Member in the Data Grid.
Search Results	The search results based on the specific keyword entered to search a Member is populated.

To Add a Child to the Hierarchy:

a. Right-click in the **Hierarchy View** tab.

b. Select **Add Child** option and the **Add Member Page** are displayed.

c. Select the required Member and click **Move**, to move the Member to the Selected Members panel. To select multiple members, press CTRL and select the members. The selected members are added to the **Selected Members** pane.

- Click **Move All** to move all Members listed in the Show Members pane, to the Selected Members pane. Click **Fetch from DB** to select all nodes/ members in the server.
- Select a member and Click **Remove** to deselect a Member. To remove multiple members, press CTRL and select the members.
- To remove all the members from the **Selected Members** pane, click **Remove all**.
- You can click **Search** button for the required member using Alphanumeric Code, Numeric Code, Name, Description, Attribute Name, or Attribute Value. Enter the search criteria and Click **Search**, in the Search Panel.
- You can also click **Search** button to toggle the display of Numeric Code left, right, or name and click button to display Alphanumeric Code left, right, or name.

d. Click **OK**. The selected Member is displayed as Child under **Data Grid** panel in the **Hierarchy View** tab.

2. **To add a Sibling to the Child in the Hierarchy Definition:**

a. Right-click on the Child and select the option **Add Sibling**.
The **Add Sibling** Page is displayed.

b. Select the required Members and **Move**, to move the Member to the Selected Members panel.
The Member is displayed in the **Selected Members** panel.

c. Click **OK**. The selected Member is added as **Sibling** below the **Parent** under Data Grid Panel in the **Hierarchy View** Tab.

3. **To add a Leaf under a Parent/Child or Sibling**:

a. Right-click the Parent or Child and select **Add Leaf**.
The Add Member Page is displayed.

b. Select the required Members and click **Move**, to move the Member to the Selected Members panel.
The Member is displayed in the **Selected Members** panel.

c. Click **OK**. The selected Member is displayed as Leaf below the Parent or Sibling under **Show Hierarchy** Panel in the Hierarchy View Tab.

4. **To define Level Properties:**

a. Right-click the Parent or Child and select **Level Properties**. The details are displayed in the Member Properties Panel.

b. Enter the valid **Name** and **Description** in the respective fields.

c. Click **OK** and the Levels defined are displayed in the drop-down in **Initial Level Display** field in **Data Grid** in **Hierarchy View** Tab.

5. **To cut and paste Child or Sibling:**

a. Right-click on any node and select **Cut**.

b. Right-click on any node and **Paste as Child** or **Paste as Sibling**.

6. **To Delete/Undelete**

a. Right-click on the node to be deleted and select **Delete Node**.
The node deleted is struck out.

b. Right-click and select **UnDelete** to cancel deletion of the node.

7. To view the Member Properties and Member Attributes of a node in the **Hierarchy View** Panel:

   a. Click on a Member.
   The properties such as Alphanumeric Code, Numeric Code, Name, Description, Enabled, Is Leaf, Created By, Creation Date, Last Modified By, Last Modification Date, Attribute, and Value of the selected Member are displayed in the Member Properties and Member Attributes Grids.

   In the Hierarchies page you can also:

   - Click **Collapse** or Expand, to collapse or expand a branch .
   - Click **Focus** or **Unfocus**, to focus or unfocus a selected node except the Root Node.
   - Click **Sort** to sort the list in ascending or descending order.

8. Click **Save**.
   The new Hierarchy Definition is created successfully.

3.5.2.1 Audit Info

The Audit Info Section provides details such as Created By and Modified By Users, Creation and Modification Date, and Authorized By user Details. You can add Additional information as comments and Tags. Tags are labels that help to simplify the data search and locate the required details.

3.5.3 Managing Hierarchy Definitions

You can View, Edit, Copy, and Delete the existing Hierarchy Definitions from the Hierarchy Summary Page.

In the Hierarchy Summary Page, highlight a specific Hierarchy Definition and click **Action**. The following options are displayed.

Field	Description
View	View the **Hierarchy Details** for a specific Member Definition.
Edit	Edit the**Hierarchy Details** for a specific Member Definition.
Copy	Copy the Hierarchy Definition details and create another Hierarchy Definition by changing the unique values like Name, Description and so on.
Delete	Edit the Hierarchy Definition Details.

3.5.3.1 Viewing Hierarchy Definition Details

You can view the details of an individual Hierarchy Definition, using the following procedure:

1. Highlight the Hierarchy Definition and click **Action (three dots)** .
2. Click **View** .

The Hierarchy Definition Page is displayed with the details Name, Description, Folder, Dimension, Start Date and Hierarchy View details.

3.5.3.2 Editing Hierarchy Definition Details

You can edit individual Hierarchy Definition Details at any given point.

To edit the existing Hierarchy Definition Details:

1. Highlight the Hierarchy Definition and click the **Action (three dots)**.
2. Click **Edit** .

   The Hierarchy Definition Page is displayed with the details Name, Description, Folder, Dimension, Start Date and Hierarchy View details.

   Edit the required information and click **Save**.

3.5.3.3 Copying Hierarchy Definition Details

You can copy individual Hierarchy Definition Details, to recreate another new Member Definition. To copy the Member Definition Details:

1. Highlight the Hierarchy Definition and click **Action**.
2. Click **Copy**.

   The Hierarchy Definition Page is displayed with the details Name, Description, Folder, Dimension, Start Date and Hierarchy View details.

   Edit the unique information such as Name, Description, Folder, Dimension, Start Date and Hierarchy View details and click **Save**.

3.5.3.4 Deleting Hierarchy Definition Details

To delete a Hierarchy Definition:

1. Highlight the Hierarchy Definition and click **Action**.
2. Click **Delete** .

   The Hierarchy Definition is deleted after confirmation.

> **Note:**
>
> You cannot delete a definition if any dependency like Attribute, Hierarchy or Filter is attached to it. Detach the dependency before deleting the definition.

3.6 Viewing Data in a Summary Page

A Summary Page will contain a list of definitions associated with a specific Dimension Data, Filters, Batch or Schedules.

You can search, filter and customize the view to access the required data faster.

4
System Administration

This chapter covers the following topics:

4.1 Users and Roles

Understand the following terms before you begin performing User Management.

- **Users**: Customers create users in Identity and Access Management (IAM) and can do the following:
  - Map them to existing groups
  - Create new groups to map them

  After users are created, they are synced from IAM to the Cloud Service.
  - **Groups**: Groups are seeded (available out-of-the-box) by your Cloud Service. Customers can also create new groups in IAM. After groups are created, they are synced from IAM to the Cloud Service. Groups are mapped to roles using the Cloud Service by the same user that was created using IAM.
  - **Roles**: Roles are seeded by the Cloud Service. Customers can also create new roles using the Cloud Service and assign existing functions to these new roles.
  - **Functions**: Functions are seeded by the Cloud Service. Customers cannot create new functions; however, they can only use the existing functions.

4.1.1 View List of Application Users

The Users Summary Page shows the list of available users. You can view the details of a user and map the user to one or more User Groups.

Select the Username in the Users Summary page and then select Details to view the User ID and Username of the selected User.

To search for a specific User, type the first few letters of the Username that you want to search in the **Search** box and click **Search**.

The search result displays the names that consist of your search string in the list of available users.

You can use the navigation buttons at the bottom of this page to move around in different pages. Also, you can enter the number of entries to be listed on a single page in the **Records** box or use the buttons to increase or decrease the number of entries.

Also, you can enter the page number in the **View Bar Control** and jump to the page you want.

4.1.2 Create Application Users

After you sign in to your IAM console, one of your first tasks is to create additional user accounts. You should assign specific user groups to the user accounts that you are creating. There are seeded user groups available with the respective services, users must be mapped to one or more of the user groups, depending on the role that they perform.

For example, you can create a user for each member of your team. Each team member can then sign into the account with their credentials. You can also assign each user to specific user groups and apply specific security policies or roles to each group.
You can create the users and map the users to groups for your service. After creating the users, the users will receive a Welcome email. The users must activate their accounts and enter a new password to access the services.

To create users in the IAM Console, perform the following steps:

1. In the IAM Console, click the **Profile** icon and select **Identity domain** to add the Application Users.
2. In the **Identity Domain** left pane, click **Users** and select **Create user**.
3. Enter the following details:

   To have the user sign in with their email address:

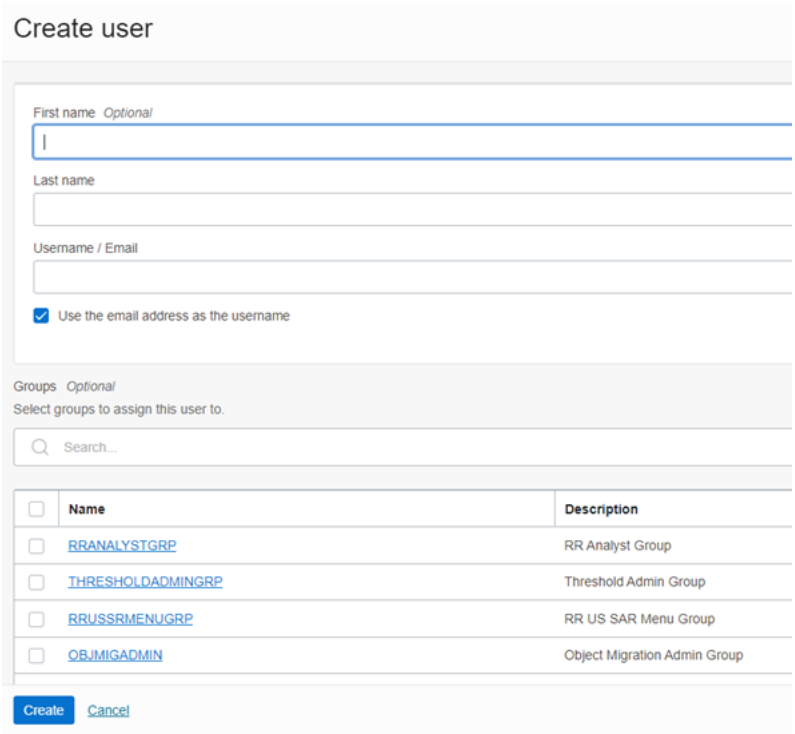
   - Leave the **Use the email address as the username** check box selected.
   - In the **Username / Email** field, enter the email address for the user account.

   Or

   To have the user sign in with their user name:

   - Clear the **Use the email address as the username** check box.
   - In the **First name** and **Last name** fields, enter the user name that the user is to use to sign in to the Console.

Figure 4-1 Add User Details



> **Note:**
>
> Ensure that you restrict the User Name to the following:
>
> a. Do not enter your Email ID as the Username and do not select the **Use the email address as the username** check box.
> b. Enter a maximum of 20 characters.
> c. Enter Alphanumeric Characters.
> d. Enter only Hyphen (-) and Underscore (_) Special Characters.

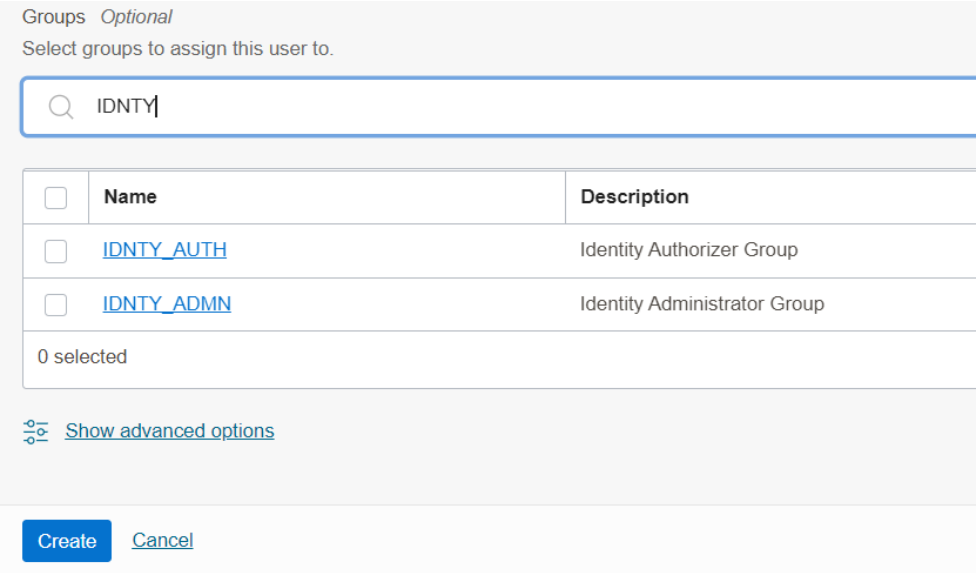
4. In the **Groups (Optional)** section, select the user groups according to your user-specific groups or access.

> **Note:**
>
> After a user sign in to the PBSM Cloud Service, the User to User-Group Mapping created in the **IAM Console** will onboard into the Master and Mapping Tables. Later, if you deselect (remove) a User from a Group in the **Assign User to Groups** Window after provisioning, ensure that you also unmap the User from the corresponding User- Group in the **Admin Console**. This is a mandatory step to complete the unmapping process.

5. To create an Identity Administrator or Authorizer user, assign the users to the following:

- **IDNTY_ADMIN**: You can use this option to create an Administrator User.
- **IDNTY_AUTH**: You can use this option to create an Authorizer User.

Figure 4-2 Assign Users to Groups Window



6. Click **Create**.

For Bulk User Creation, you can batch import User Accounts using a comma-separated values (.CSV) file.

4.1.3 Create a User Group

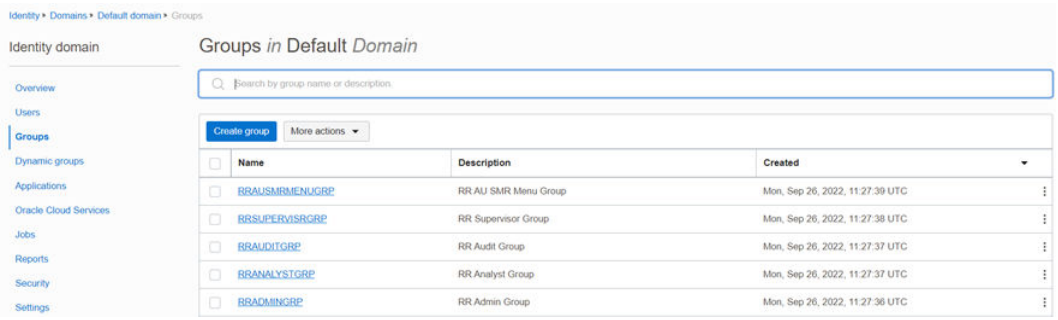
You can create groups to manage user access to applications and resources. A group has no permissions until you do one of the following:

- Write at least one policy that gives that group permission to either the tenancy or a compartment. When writing the policy, you can specify the group by using either the unique name or the group's OCID.
- Assign the group to an application.

To create a User Group in IAM Console, perform the following steps:

1. In the IAM Console, click the **Profile** icon and select **Identity domain** to add a User Group.
2. In the Identity Domain left pane, click **Groups** and select **Create group**.

Figure 4-3 Identity Domain



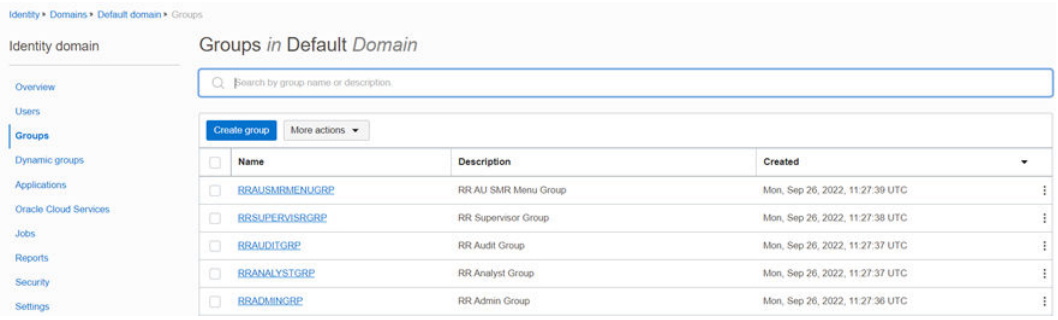
3. Enter the following details:
   - The name of the group. This field is mandatory.
   - Description for the group.
4. To allow users to request access to this group, select **User can request access**.
5. To add users to the group, select the check box for each user that you want to add to the group.
6. Click **Create**.

4.1.4 Add User to Group

To add a User to Group in IAM Console, perform the following steps:

1. In the IAM Console, click the **Profile** icon and select **Identity domain: Default** to add the User Group.
2. In the Identity Domain left pane, click **Groups** and select the group for which you want to add the users.

Figure 4-4 Groups in Default Domain



3. Click **Assign user to groups**.
4. To add users to the group, select the check box for each user that you want to add to the group.
5. Click **Add**.

4.1.5 Import Application Users

If you are an Administrator, you can batch import User Accounts using a Comma-separated Values (.CSV) file.

> **Note:**
>
> Before you can import user accounts, you must create a CSV file that is properly formatted for the import process.

To import user accounts, perform the following steps:

1. In the IAM Console left pane, click Users and select More Actions drop down and select Import Users.
2. In the **Import Users** dialog box, click **Browse** to locate and select the CSV file that contains the user accounts to import.

   > **Note:**
   >
   > Click **Download sample file** in the dialog box to download a sample file and carry out your accounts upload.

3. Verify that the path and name of the .CSV file that you selected appear in the **Select a file to import** field.
4. Click **Import**.

   > **Note:**
   >
   > If a user account is missing a required value, such as the user's first name, last name, or username, then Oracle Identity Cloud Service cannot import it. If Oracle Identity Cloud Service cannot import a User Account, then it evaluates the next account in the CSV file.

After Oracle Identity Cloud Service evaluates all User Accounts, the **Jobs** page displays the accounts you have imported. You can also get information related to the successful imports and imports that did not happen due to system errors.

4.2 User Groups

User Groups are seeded (available out-of-the-box) by the Cloud Service. Customers can also create new groups in IAM. After groups are created, they are synced from IAM to the Cloud Service. Groups are mapped to roles using the Cloud Service by the same user that was created using IAM.

4.2.1 Map Application with the User

To map the application to a User Group, log in to IAM and follow these steps:

1. Search for the **Domain**.
2. Select the **Default Domain** and then from the LHS menu, select **Oracle Cloud Services**.

   The screen displays the various Oracle Cloud Services.
3. Select the Cloud Services you are subscribed to (for example: **PBSMCS xxxx-prd** and **PBSMCS xxxx-nprd**).

   Where **Description** is mentioned as PBSM Cloud Service.
4. From the LHS menu, select **Users**.
5. Click **Assign Users**, and then select the user.
6. Click **Assign**.

4.2.2 Map Application with the Groups

To map the application to a User Group, log in to IAM and follow these steps:

1. Search for **Domain**.
2. Select the **Default Domain** and then from the LHS menu, select **Oracle Cloud Services**.

   The screen displays the various Oracle Cloud Services.
3. Select the Cloud Services you are subscribed to like, **PBSMCS xxxx-prd** and **PBSMCS xxxx-nprd**

   Where **Description** is mentioned as PBSM Cloud Service.
4. From the LHS menu, select **Groups**.
5. Click **Assign Groups**, and then select the relevant **Group**.
6. Click **Assign**.

4.2.3 Map Users to Groups

If you are an Administrator and want to map a User to a User Group, log in to IAM and follow these steps:

1. Select the **User Name** in the **Users Summary** page.
2. Select **Mapped Groups**.
3. Select the **User Group Name**.

> **Note:**
>
> To select a User Group, select the check-box corresponding to the User Group. To select all User Groups displayed on the page, select the check-box marked **Select All**.

4. Click **New Mapping** to map the User to the selected User Group.

   Or

   Click **Unmap** to remove the User Group-Role Mapping.

   If the Unmap action requires authorization, see the Unmap User from Group section for details.

> **Note:**
>
> User-Group mapping changes from IDCS will take some time to sync with your Cloud Service. If these changes are made during the active user session, then it will be reflected on the next login.
> After a user signs into the Cloud Service, the User to User-Group Mapping created in the IDCS Console will onboard into the Master and Mapping Tables. If you unmap a User from a Group in the Admin Console, navigate to the associated Console and open the Assign User to Groups Window. Deselect the User corresponding to the User Group and click **Finish**. This is a mandatory step to complete the Unmapping Process.
>
> For more information, refer to Unmap User from Group.

After you click New Mapping, the list of User Groups you can map the user to appears in the Available Groups Summary Page.

5. Select a **User Group**.

> **Note:**
>
> To select a User Group, select the check box corresponding to the User Group. To select all User Groups displayed on the page, select the check box marked Select All.
> If the logged-in user has both Administration and Authorization Entitlements, an Authorization View Toggle Button is available. Enable this button to complete the Authorization Process.

6. Click **Map**.

> **Note:**
>
> To select a User Group, select the check box corresponding to the User Group. To select all User Groups displayed on the page, select the check box marked Select All.
> If the logged-in user has both Administration and Authorization Entitlements, an Authorization View Toggle Button is available. Enable this button to complete the Authorization Process.

4.2.4 Unmap User from Groups

To authorize the unmapping of a User to a User Group, log in to IAM and follow these steps:

1. Click **Unmapped Groups**.
2. Click the User Group Name to select the User Group.
3. Click **Authorize** to authorize the unmapping.

Or

Click **Reject** to cancel the Authorization Request.

4.2.5 Create a User Group

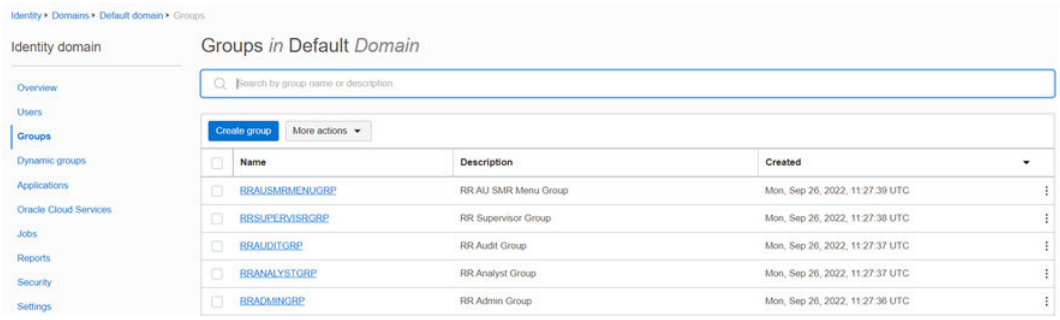
You can create groups to manage user access to applications and resources.
A group has no permissions until you do one of the following:

- Write at least one policy that gives that group permission to either the tenancy or a compartment. When writing the policy, you can specify the group by using either the unique name or the group's OCID.
- Assign the group to an application.

To create a User Group in IAM Console, perform the following steps:

1. In the IAM Console, click the **Profile** icon and select **Identity domain** to add a User Group.
2. In the Identity Domain left pane, click **Groups** and select **Create group**.

Figure 4-5 Identity Domain



3. Enter the following details:
   - The name of the group. This field is mandatory.
   - Description for the group.
4. To allow users to request access to this group, select **User can request access**.
5. To add users to the group, select the check box for each user that you want to add to the group.
6. Click **Create**.

4.3 User Management

During implementation, you prepare your Oracle Application's Cloud Service for the Service Users. The decisions made during this phase determine how you manage users by default. Most of these decisions can be overridden. However, for efficient User Management, Oracle recommends that you configure your environment to reflect both enterprise policy and support most or all users.

For more information, see the View List of Application Users and User Roles and Privileges.

4.3.1 Application Users

During implementation, you can use the Create User task to create Test Service Users. By default, this task creates a minimal person record and a user account. After implementation, you should use the Hire an Employee Task to create Service Users. The Create User Task is not recommended after the implementation is complete.

For more information, see Create Application Users.

4.3.2 User Roles and Privileges

Oracle Financial Services Profitability Analytics Cloud Service (PACS) Users are assigned roles through which they gain access to functions and data. Users can have any number of roles.

The following figure shows User Personas and the tasks they can perform:

Table 4-1 Top-Down Personas and Tasks

PACS BI Data Steward	PACS BI - Management /CXO/Org Head	PACS BI Application	PACS BI - Regional Manager
Create Users	Set Preferences	Manage PACS Data	View OOTB Reports for Management Reporting and Profitabilty Insights
Map Users to OOB User Groups	View OOTB Reports for Management Reporting	Create new reports if required of existing RPD	Set Preferences
Create User Groups and Roles	Create Watch Lists	Manage Dimensions	Create Watch Lists
Map Roles to User Group	Add comments on charts	Review Process Logs	Add comments on charts
Admin Privileges to all modules	Add tolerance limits for measures	Manage Set Up Configurations	Add tolerance limits for measures
Manage Runchart and Batches	Create custom charts	Review PACS data integrity	Create custom charts
		Create Mailing Lists	

Table 4-2 Bottom-Up Personas and Tasks

PACS BI Data Steward	PACS BI - Product Manager/Branch Manager	PACS BI Application Analyst	PACS BI - Regional Manager
Create Users	Set Preferences	Manage PACS Data	View OOTB Reports for Management Reporting and Profitabilty Insights
Map Users to OOB User Groups	View OOTB Reports for Management Reporting	Create new reports if required of existing RPD	Set Preferences

Table 4-2 (Cont.) Bottom-Up Personas and Tasks

PACS BI Data Steward	PACS BI - Product Manager/Branch Manager	PACS BI Application Analyst	PACS BI - Regional Manager
Create User Groups and Roles	Create Watch Lists	Manage Dimensions	Create Watch Lists
Map Roles to User Group	Add comments on charts	Review Process Logs	Add comments on charts
Admin Privileges to all modules	Add tolerance limits for measures	Manage Set Up Configurations	Add tolerance limits for measures
Manage Runchart and Batches	Create custom charts	Review PACS data integrity	Create custom charts
		Create Mailing Lists	

Note:

- User-Group mapping changes from IDCS will take five minutes to sync with the application. If these changes are made during the active user session then it will be reflected on the next login.
- You can create and manage Application users as required. For example, you can map the Pipeline Admin Group and PACS Admin Group to one user.

4.3.2.1 Role Based Access Control

Role-based security in Oracle Financial Services Profitability Analytics Cloud Service Controls who can do what and to which data.

The following table provides examples of role-based access.

Table 4-3 Role Based Access Control

Role Assigned to a User	Functions which Users with this Role can Perform	Set of Data which Users with the Role can Access when performing the Function
Application Administrators	Manage RPD and Dimensions across reports along with Set Up Configurations. Manage data integrity and mailing lists.	Reports and RPD's associated with Top Down (Management Reporting) and Bottom Up (Profitability Insight and Customer Profitability reports). SetUp Configurations and SQL Query Browser
Business Users	Access to the Application to review reports. Access to Set Up Configurations UI's	Reports and RPD's associated with Top Down (Management Reporting) and Bottom Up (Profitability Insight and Customer Profitability reports).

Table 4-3 (Cont.) Role Based Access Control

Role Assigned to a User	Functions which Users with this Role can Perform	Set of Data which Users with the Role can Access when performing the Function
Data Steward	Perform Application Administrator and data and dataflow Management activities	User Group with Business Tasks' Roles across all Service Features. Batch Management and Monitoring

4.3.2.2 User Roles and Activities

The following User Roles are seeded in the PBSM Cloud Service to facilitate the activities expected from the users mapped to the seeded User Groups:

- PACS BI TD - Management/CXO
- PACS BI TD - Regional Manager
- PACS BI TD - Org Head
- PACS BI TD - Application Analyst
- PACS BI TD - Data Steward
- PACS BI BU - Regional Manager
- PACS BI BU - Branch Manager
- PACS BI BU - Product Manager
- PACS BI BU - Application Analyst
- PACS BI BU - Data Steward

The user roles Profitability Analytics Application Analyst and Profitability Analytics Data Steward are required to access the main application for view, edit and other purposes, based on the User Persona accessing the same. An Analyst User Persona can view all PA Reports and edit RPD elements and create custom reports. Similarly, a Data Steward Persona can view and edit all PA Admin Screens along with screens relevant to batch scheduling monitoring and execution.

The Business User Roles like Management/ CXO/ Org Head/ Regional Manager/ Product Manager/ Branch Manager - are seeded BI Roles to be used for the users to access all the Analytics Menu, along with DV features along with all reporting in the PA Application.

Overall, these ten roles are created to facilitate Analytics access for five different types of User Persona. These roles can be mapped to any User Group to provide the Analytics access to users under the User Group.

4.3.2.3 User Persona and Analytics Menu Access Details

The following table provides the information on the User Persona and access within Analytics menu.

Table 4-4 User Persona and Analytics Menu Access Details

Level 1 Menu	Level 2 Menu	Management Reporting Persona	Profitability Insight Persona
BI Home Page		• PACS BI TD - Management/ CXO • PACS BI TD - Regional Manager • PACS BI TD - Org Head • PACS BI TD - Application Analyst PACS BI TD - Data Steward	• PACS BI BU - Branch Manager • PACS BI BU - Product Manager • PACS BI BU - Application Analyst • PACS BI BU - Data Steward PACS BI BU - Regional Manager
SQL Query Browser		• PACS BI TD - Application Analyst PACS BI TD - Data Steward	• PACS BI BU - Application Analyst • PACS BI BU - Data Steward
Operational Analysis	• Dimensions Registry • Currency Rates • Segment Registry	• PACS BI TD - Application Analyst PACS BI TD - Data Steward	• PACS BI BU - Application Analyst PACS BI BU - Data Steward
Management Reporting		• PACS BI TD - Management/ CXO • PACS BI TD - Regional Manager • PACS BI TD - Org Head • PACS BI TD - Application Analyst PACS BI TD - Data Steward	• PACS BI BU - Data Steward PACS BI BU - Regional Manager
Profitability Insights		• PACS BI TD - Management/ CXO • PACS BI TD - Regional Manager PACS BI TD - Data Steward	• PACS BI BU - Branch Manager • PACS BI BU - Product Manager • PACS BI BU - Application Analyst • PACS BI BU - Data Steward PACS BI BU - Regional Manager
Customer Profitability		• PACS BI TD - Management/ CXO • PACS BI TD - Regional Manager PACS BI TD - Data Steward	• PACS BI BU - Branch Manager • PACS BI BU - Product Manager • PACS BI BU - Application Analyst • PACS BI BU - Data Steward PACS BI BU - Regional Manager

In addition to this, Custom User Groups can also be created and managed as per requirement.

4.3.2.4 User Persona and Set Up Configuration Menu Access Details

The following table provides the information on the User Persona and access within Set Up Configurations.

Table 4-5 User Persona and Set Up Configuration Menu Access Details

Level 2 Menu	Management Reporting Persona	Profitability Insight Persona
Application Preference	• PACS BI TD - Application Analyst • PACS BI TD - Data Steward	• PACS BI BU - Branch Manager • PACS BI BU - Product Manager • PACS BI BU - Application Analyst • PACS BI BU - Data Steward • PACS BI BU - Regional Manager
Batch Parameters	• PACS BI TD - Application Analyst • PACS BI TD - Data Steward	• PACS BI BU - Application Analyst • PACS BI BU - Data Steward
Financial Element Mapping		• PACS BI BU - Branch Manager • PACS BI BU - Product Manager • PACS BI BU - Application Analyst • PACS BI BU - Data Steward • PACS BI BU - Regional Manager
Segmentation Mapping		• PACS BI BU - Branch Manager • PACS BI BU - Product Manager • PACS BI BU - Application Analyst • PACS BI BU - Data Steward • PACS BI BU - Regional Manager
Line Item Display Order	• PACS BI TD - Application Analyst • PACS BI TD - Data Steward	• PACS BI BU - Application Analyst • PACS BI BU - Data Steward

4.3.2.5 Persona, User Group, Access Type and Role Code Mapping

The following tables list the seeded mapping of User Groups to the User Roles, along with Persona and Access Type.

Table 4-6 Top-Down Persona

IDCS User Group Code	Mapped Role Code	User Access Type	Persona
UGPATDCXO	PATDCXO	R	PACS BI TD - Management/ CXO
UGPATDRM	PATDRM	R	PACS BI TD - Regional Manager
UGPATDHEAD	PATDHEAD	R	PACS BI TD - Org Head
UGPATDAAN	PATDAAN	R/W	PACS BI TD - Application Analyst
UGPATDADMIN	PATDADMIN	R/W	PACS BI TD - Data Steward

Table 4-7 Bottoms-up Persona

IDCS User Group Code	Mapped Role Code	User Access Type	Persona
UGPABURM	PABURM	R	PACS BI BU - Regional Manager
UGPABUBM	PABUBM	R	PACS BI BU - Branch Manager
UGPABUPM	PABUPM	R	PACS BI BU - Product Manager
UGPABUAAN	PABUAAN	R/W	PACS BI BU - Application Analyst
UGPABUADMIN	PABUADMIN	R/W	PACS BI BU - Data Steward

Customers can customize User Groups and map the seeded or Custom User Roles as it suites the requirement.

5
Reports & Analytics

This chapter describes the features and functions of Profitability Analytics Cloud Service's (PACS) and is intended for the use of Administrators, Analysts, Reporting and Analysts.

Profitability and Balance Sheet Management (PBSM) Could Service utilizes the power of Oracle Analytics to generate the Business Intelligence Reports.

Oracle Analytics is a scalable and secure Oracle Cloud Service that provides a full set of capabilities to explore and perform collaborative analytics for you, your workgroup, and your enterprise.

With Oracle Analytics Cloud, you also get flexible Service Management capabilities, including fast setup, easy scaling and patching, and automated lifecycle management.

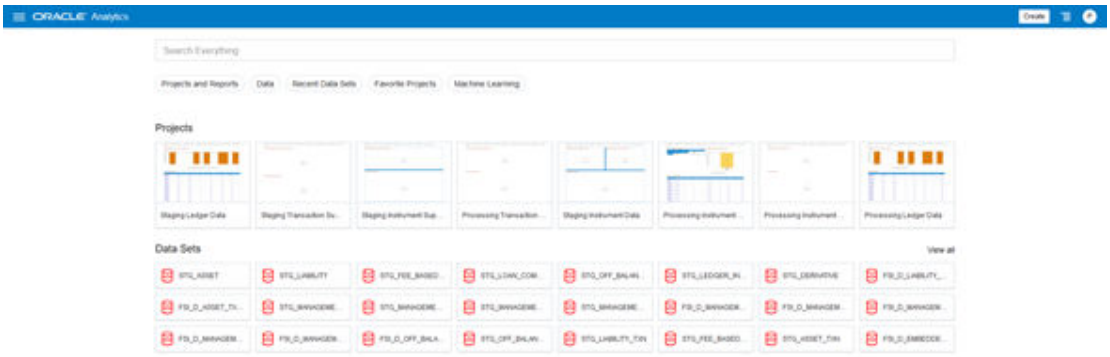
For more information, see the Oracle Analytics Cloud documentation.

5.1 Access Business Intelligence (BI) Reports

This section describes the steps to access the Business Intelligence (BI) Reports.

To access the Oracle Financial Services Profitability Management Cloud Service BI Reports, from the LHS Menu, select **Analytics**, and then select **Home Page**.

Figure 5-1 Analytics Home Page



5.2 Preparing Data using SQL Query Browser

Data Sets are self-service Data Models that you build specifically for your Data Visualization and Analysis requirements.

A Data Set can be based on one Table, Spreadsheet, or a File. Alternatively, a Data Set can be a self-service Data Model that contains multiple Tables with relationships defined between the Tables.

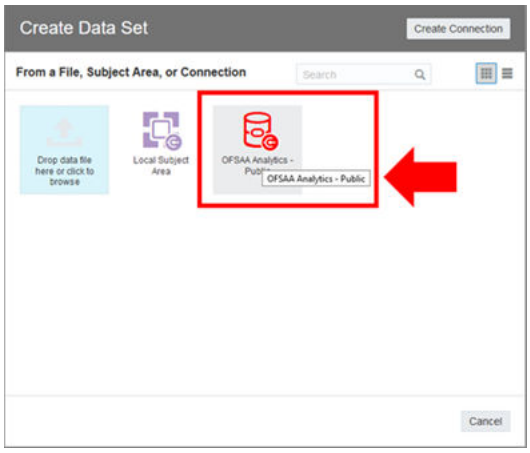
A Data Set contains Data Source Connection Information, Tables, the Columns you specify, and the Data Enrichments, and Transformations that you apply.

For more information, see Visualizing Data and Building Reports in Oracle Analytics Cloud.

To access the SQL Query Browser and prepare Data, follow these steps:

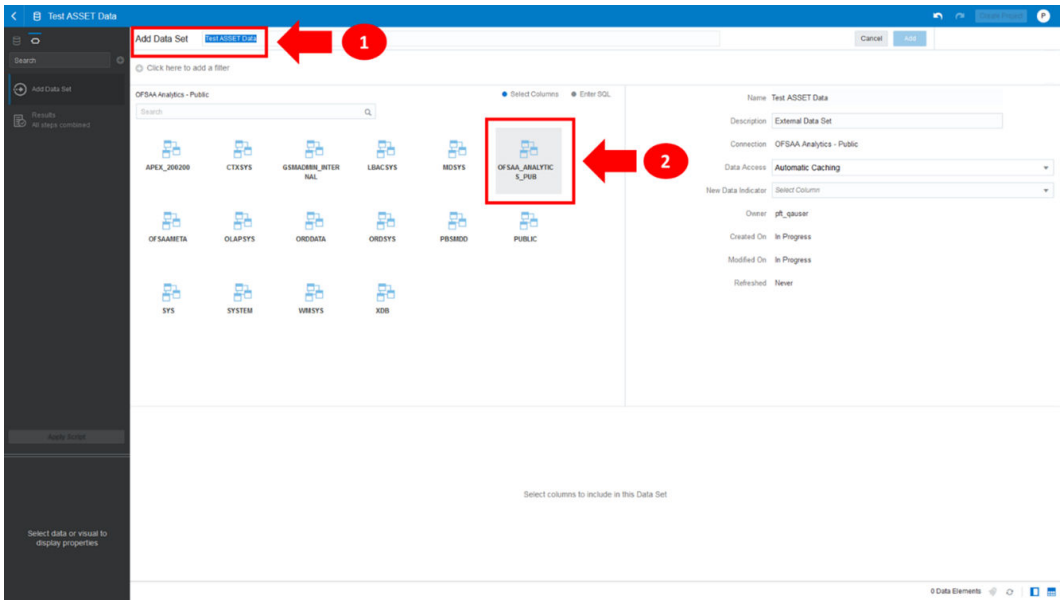
1. From the LHS Menu, select Analytics, and then select SQL Query Browser. The SQL Query Browser allows you to use an existing Database Connector named OFSAA Analytics – Public to interact with the underlying available Database Structures.

Figure 5-2 Create Data Set Screen



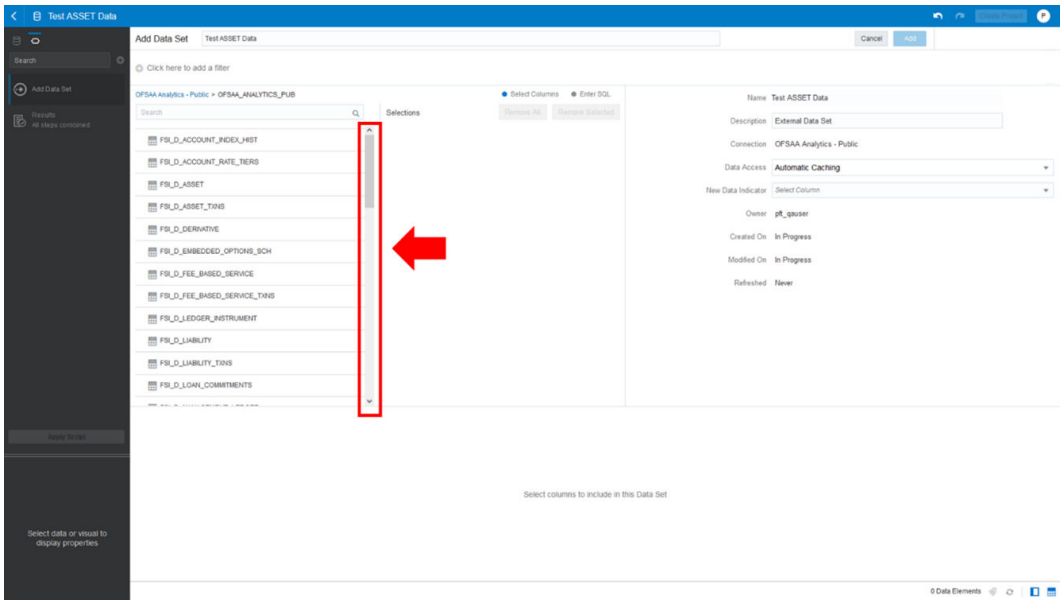
2. After selecting the Database Connector, you must select the Database Schema named OFSAA_ANALYTICS_PUB to proceed to the next step of Database Object Selection.

Figure 5-3 Add Data Set



3. Provide a meaningful name to the Data Set, which will be generated from this process and be used for the SQL Query Analysis.
4. You can search for a Database Object from the available options. You can either scroll down or search the Database Objects displayed in alphabetical order.

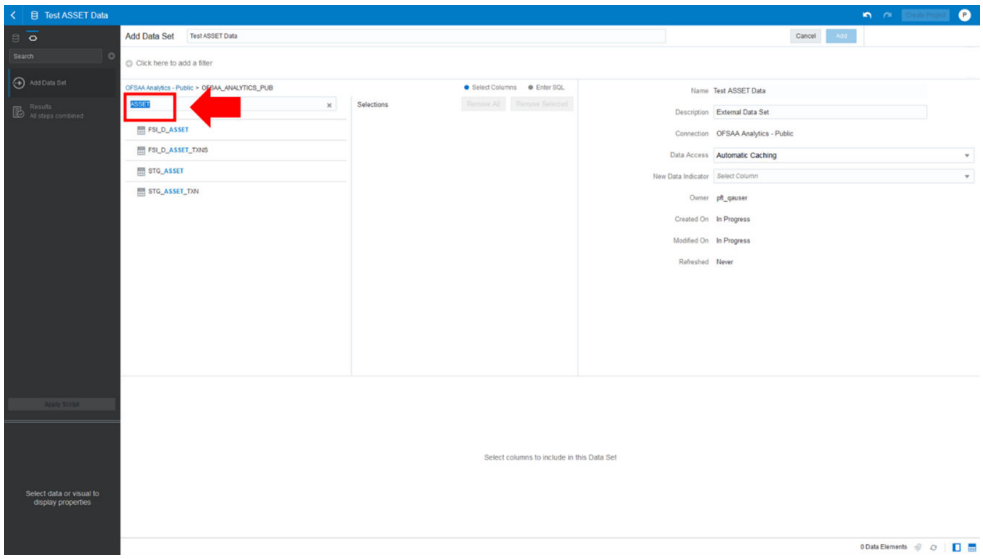
Figure 5-4 Add Data Set – Search from the List



Or

Type the Database Object Name to filter the list with Description.

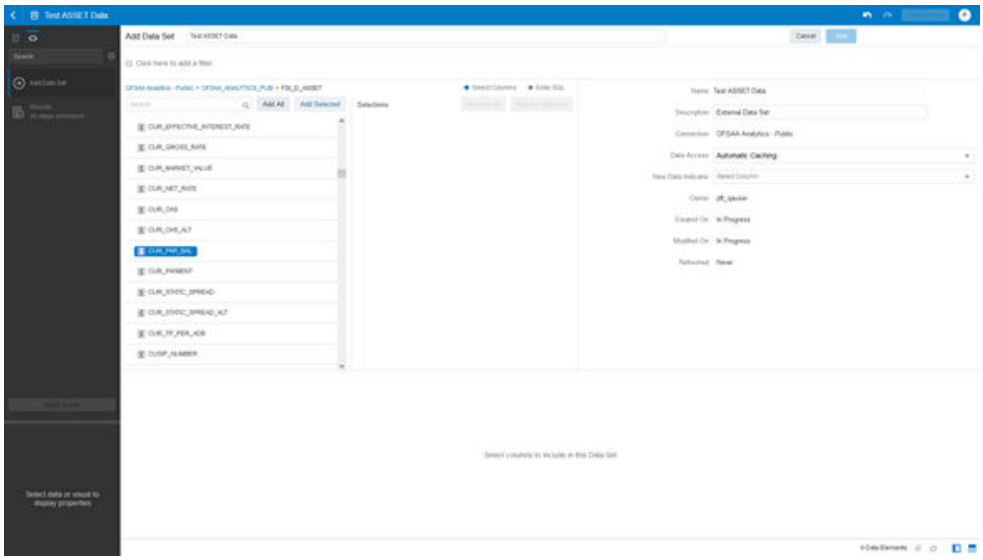
Figure 5-5 Add Data Set – Search by Name



After you select the Object that want, you can proceed to the next step.

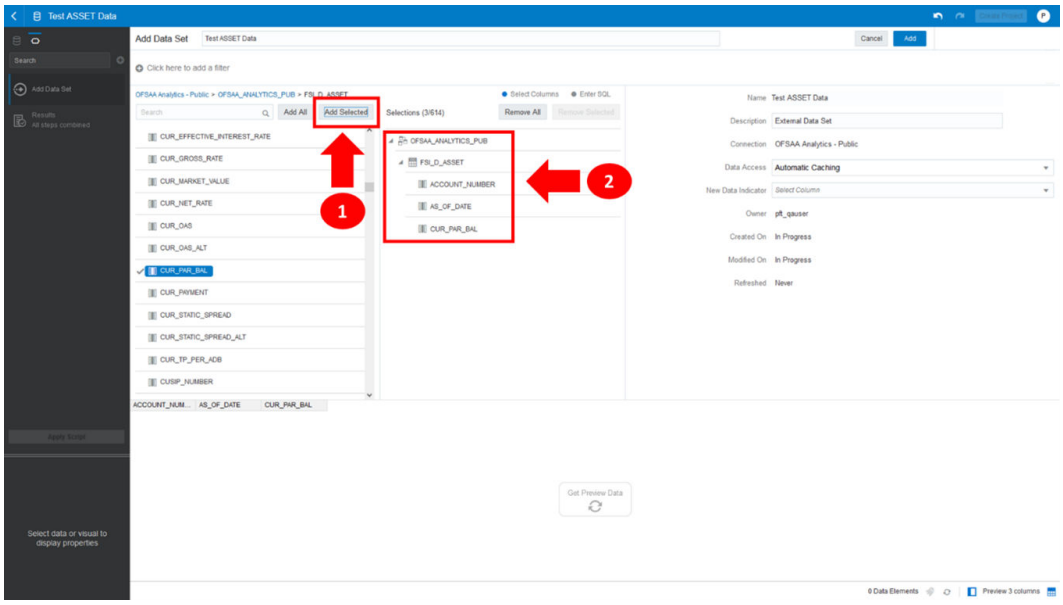
5. You search the Columns that are available for the selected Database Object by scrolling.

Figure 5-6 Add Data Set – Search Columns



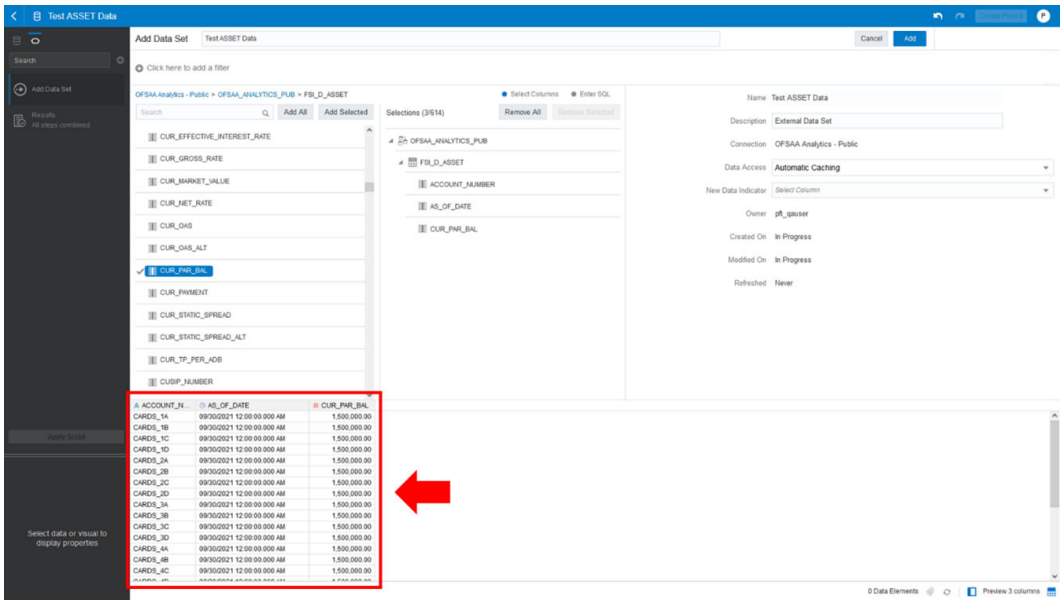
6. Add the Database Object Column as required.

Figure 5-7 Add Data Set – Adding the Database Object Column



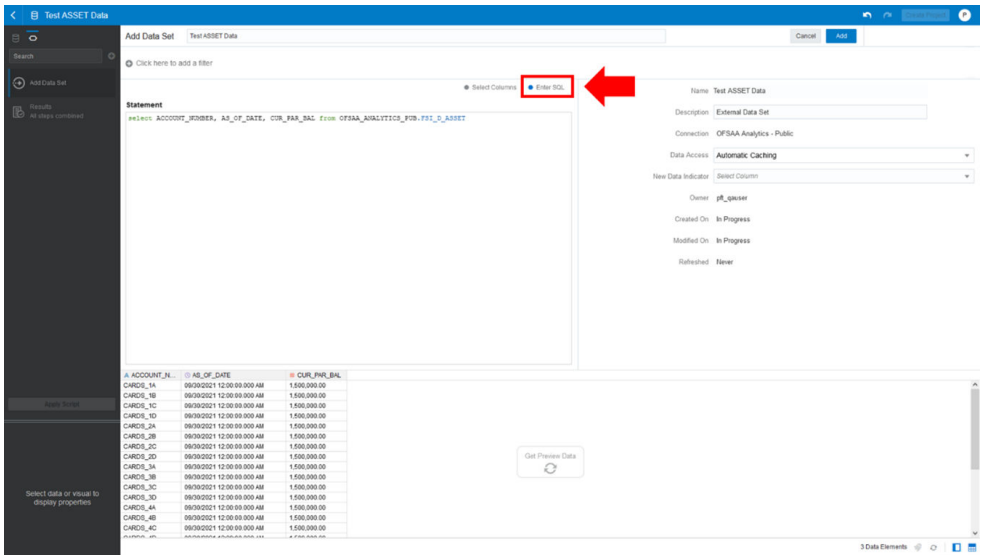
7. Click Get Preview Data to display the retrieved Data Results.

Figure 5-8 Data Results



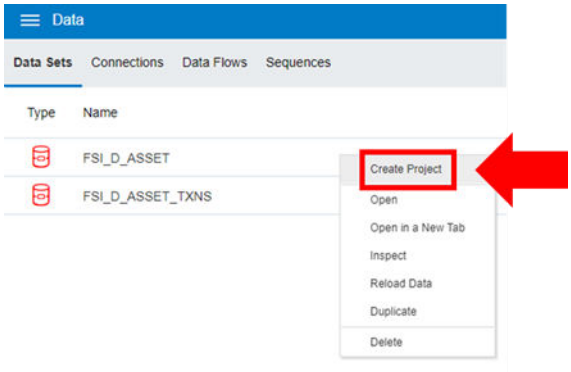
8. In addition, you can switch to the Enter SQL Pane Editor. You can change the auto-generated SQL Query at any time and click Get Preview Data to retrieve the results based on the modified SQL Query.

Figure 5-9 Data Results based on modified SQL Query



9. Click **Add** to save the SQL Data.
10. Click **Data** on the LHS Menu and click **Data Sets** to display the available Data Sets for usage.
11. Right-click on the Data Set name to display the options as shown:

Figure 5-10 Data Set Options



12. In the menu that is displayed, click **Create Project**.

5.3 Operational Analysis

This topic covers the following reports:

- Dimensions Registry
- Currency Rates
- Segment Registry
- Data Quality Checks
- File Uploads Report

- Groups and Roles Report

5.3.1 Dimensions Registry

To access the Dimensions Registry report, from the LHS menu, select **Operational Analysis**, and then select **Dimensions Registry**.

This is arranged as a set of reports catering to the analysis of the following categories:

- Financial Element
- Legal Entity
- Common COA
- GL Account
- Org Unit
- Product
- Industry
- Branch
- Geography
- IFRS9 Stage

5.3.2 Currency Rates

To access the Currency Rates report, from the LHS menu, select **Operational Analysis**, and then select **Currency Rates**.

Reporting Currency Rates is the currency in which an entity's financial statements or other financial documents are reported. Choosing one currency for reporting makes it easier to understand the financial documents across the board.

This is arranged as a set of reports catering to the analysis of the following categories:

- Floating Segment Rate
- Fixed Exchange Rate
- Exchange Rate

5.3.3 Segment Registry

To access the Segment Registry report, from the LHS menu, select **Operational Analysis**, and then select **Segment Registry**.

- This canvas shows an operational view of the segments for defined Segment Types, that were created using the segmentation UI. In particular, the reports focus on providing inputs on –.
- Segment Mapping Dimensions.
- Dimension Range Look Ups.
- Possible Intersection zones in case the same ranges for a particular dimension has been used in defining multiple Segments.

Report Filters

The following Report Filters are available:

- **Retail** or **Wholesale** Flag: You can use this filter to select customer type identification by category to retail or wholesale.
- **Segment Type**: You can use this filter to select a specific Segment Type for the Customer Profile.
- **Segment Name**: You can use this filter to select a specific Segment Type under the classification of segmentation Gold, Silver, Platinum, or Bronze.
- **Dimension Map Lookup Type**: You can use this filter to select an Exact Match or Range.
- **Segment Dimension Name**: You can choose an analysis dimension to assign to the report, they can be: ASSET Balance, Age, AVG Transaction Amount, Credit Score, Income, NIBT, No of Accounts, No of Transactions.
- **Band**: You can use this filter to select a specific range to define your band.

5.3.4 Data Quality Checks

To access the Data Quality Checks report, from the LHS menu, select **Operational Analysis**, and then select **Data Quality Checks**.

Data Quality Check Reports are divided into four canvases.

- DQ Check Platform Availability
- DQ Batch Executions
- DQ Results
- DQ Detail Results

DQ Check Platform Availability

You can use the following filters:

- **DQ Rule Name**: Rules created in the Application
- **Base Table**: Base tables used in the rules
- **Severity Values**: Error, Warning, Info

Total Checks: Number of Checks created in the OFSAA Application.

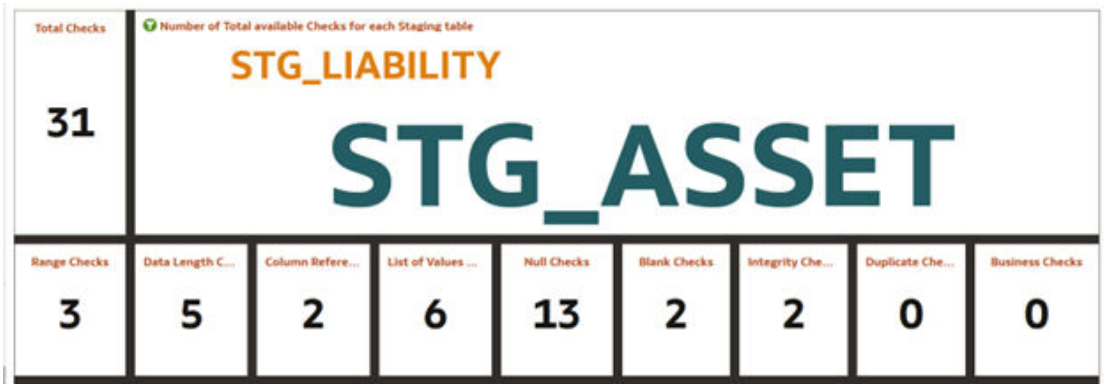
Number of Total available checks for each Staging table: Gives the information regarding number of checks based on the various staging tables.

The following reports gives the information regarding the number of various checks created.

- **Range Checks**: Total number of Range checks defined in the system.
- **Data Length Checks**: Total number of Data Length checks defined in the system.
- **Column Reference Checks**: Total number of Column Reference checks defined in the system.
- **List of Values Checks**: Total number of List of values check defined in the system.

- **Null Checks**: Total number of Null checks defined in the system.
- **Blank Checks**: Total number of Blank checks defined in the system.
- **Integrity Checks**: Total number of Integrity checks defined in the system.
- **Duplicate Checks**: Total number of Duplicate checks defined in the system.
- **Business Checks**: Total number of Business checks defined in the system.

Figure 5-11 Number of Total available Checks for each Staging table



Data Quality Checks Distribution gives the distribution of checks based on the base tables.

Detail of Available quality checks in the platform gives the percentage distribution according to severity category defined on different Staging tables.

Figure 5-12 Detail Quality Checks Distribution and Detail of Available Quality Checks in the Platform

DQ Batch Executions Canvas

This canvas gives the information regarding the Batches executed on Data Quality Checks.

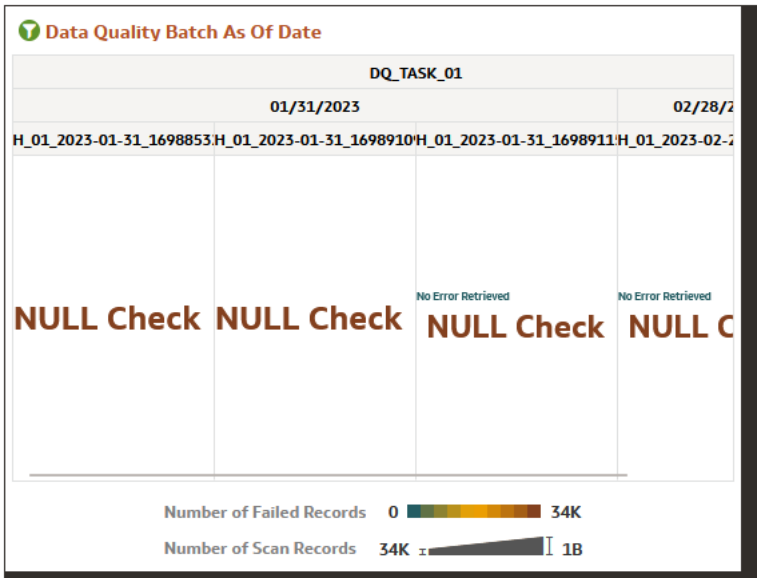
You can use the following filters:

- **Batch Identifier**: Batches executed in the system.
- **Process Identifier**: Process Name for the executed batch in the system.

- **Fic Mis Date**: Batch execution date.
- **DQ Group Identifier**: Data Quality Groups created in the system.
- **DQ Group Description**: Description of Data Quality Groups.
- **DQ Check Identifier**: Data Quality checks created in the system.
- **DQ Check Description**: Description of Data Quality checks.
- **DQ Source Table**: Base table on which Data Quality check is created.
- **DQ Category Name**: Data Quality check category.

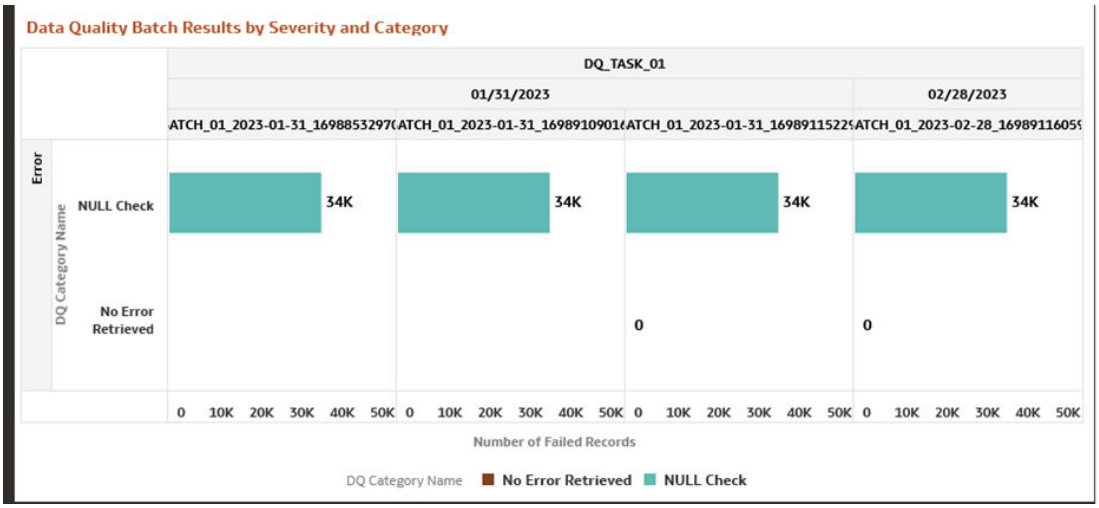
Data Quality Batch As Of Date: This report provides details on the executed checks, including the date of execution, Batch name, and the count of scanned records and failed records against each defined check and corresponding to Data Quality Category name.

Figure 5-13 Data Quality Batch As Of Date



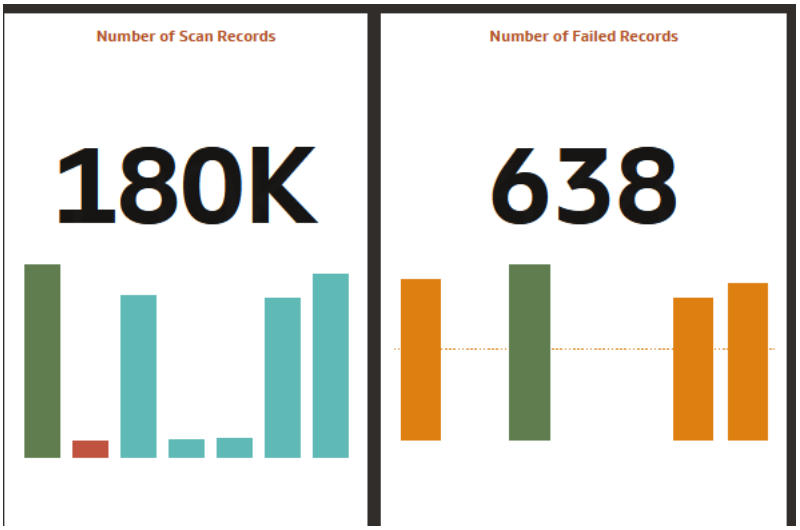
Results of Data Quality Batches by Severity and Category: This report provides details on the quantity of failed records across various batches, including the execution date and batch name according to Data Quality Category Name.

Figure 5-14 Data Quality Batch Results by Severity and Category



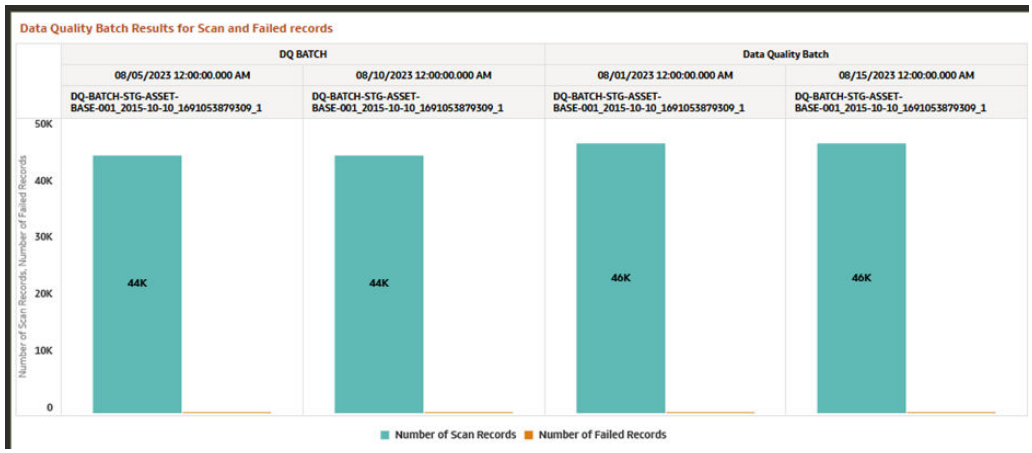
These tile reports display information about total number of scanned records and total number of failed records according to the last available Data Quality batch execution.

Figure 5-15 Number of Scan Records and Number of Failed Records



Results of Data Quality Batches for Scanned and Failed Records: This report presents a bar chart illustrating the total number of scanned records and total number of failed records, categorized by batch name and execution date.

Figure 5-16 Data Quality Batch Results for Scan and Failed Records



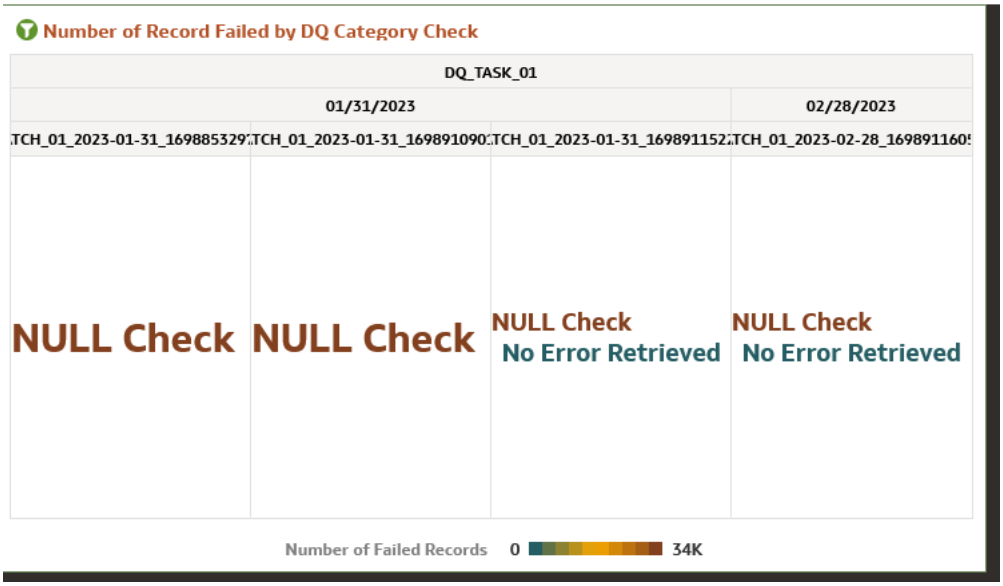
DQ Results

You can use the following filters:

- **Batch Identifier**: Batches executed in the system.
- **Process Identifier**: Process Name for the executed batch in the system.
- **Fic Mis Date**: Batch execution date.
- **DQ Group Identifier**: Data Quality Groups created in the system.
- **DQ Group Description**: Description of Data Quality Groups.
- **DQ Check Identifier**: Data Quality checks created in the system.
- **DQ Check Description**: Description of Data Quality checks.
- **DQ Source Table**: Base table on which Data Quality check is created.
- **DQ Category Name**: Data Quality check category.

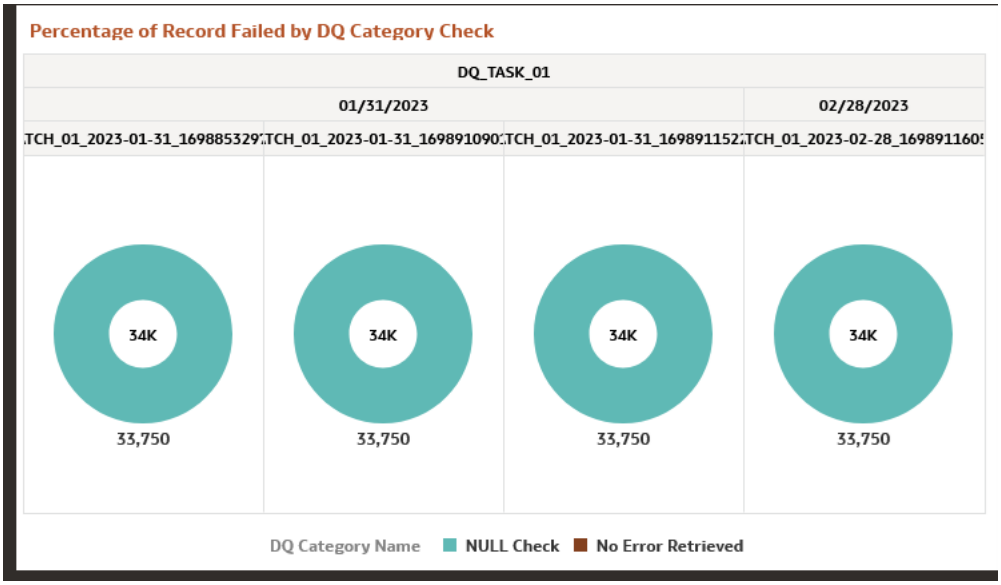
Number of Records Failed by Data Quality Category Check: This report showcases the number of failed records for each Data quality check by batch names and execution dates according to Data Quality Category Name.

Figure 5-17 Number of Record Failed by DQ Category Check



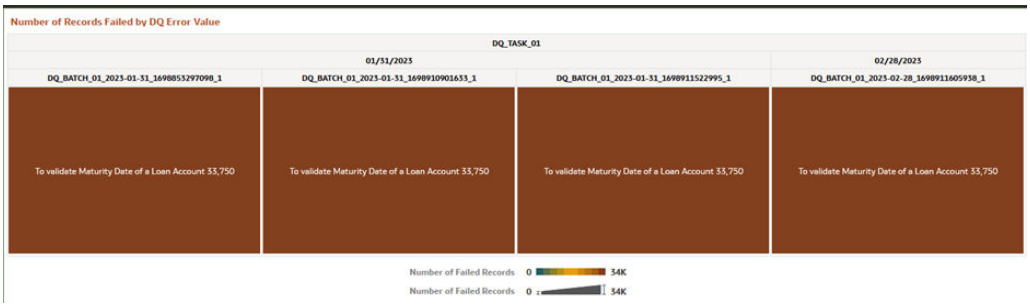
Percentage of Record Failed by DQ Category Check: This report gives the information regarding Percentage distribution and total number of checks by batch names and execution dates displayed by Data Quality Category Name.

Figure 5-18 Percentage of Record Failed by DQ Category Check



Number of Records Failed by DQ Error Value: This report shows the information regarding number of errors along with the Data Quality Check Description separated by batch names and execution dates.

Figure 5-19 Number of Records Failed by DQ Error Value



DQ Detail Results

This canvas gives the detailed information regarding the Data Quality Batch information.

Figure 5-20 DQ Detail Results

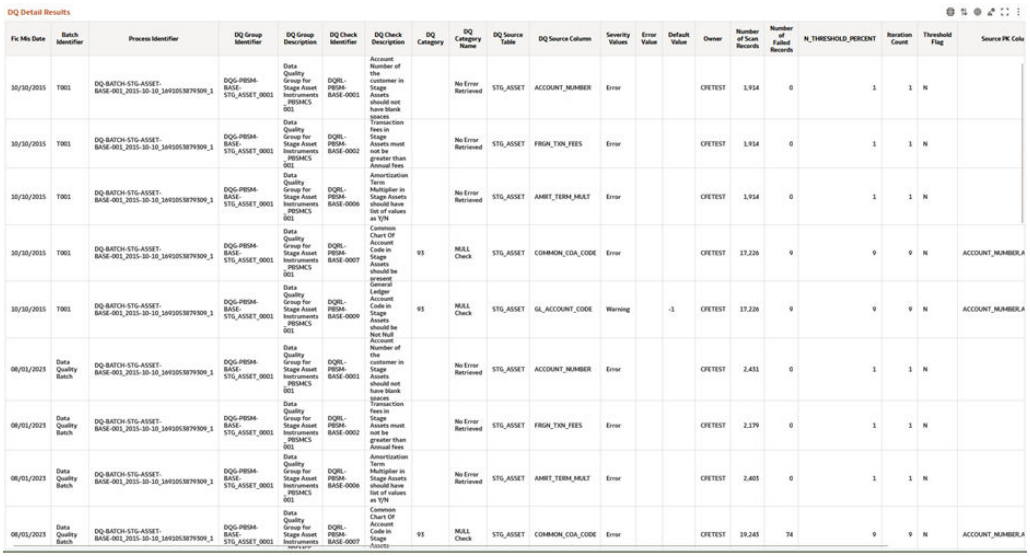
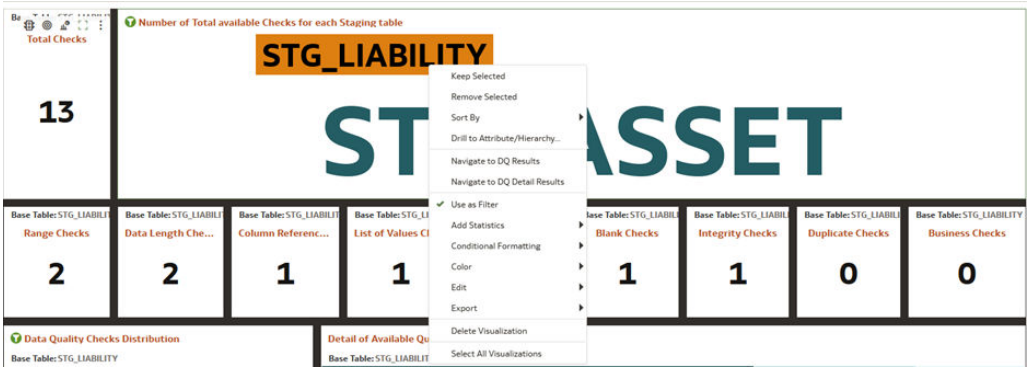


Figure 5-21 Data Action



Data Action: A Data Action link can pass context values as parameters to other canvas. In Data Quality Reports we have two data actions namely DQ Results and DQ details results.

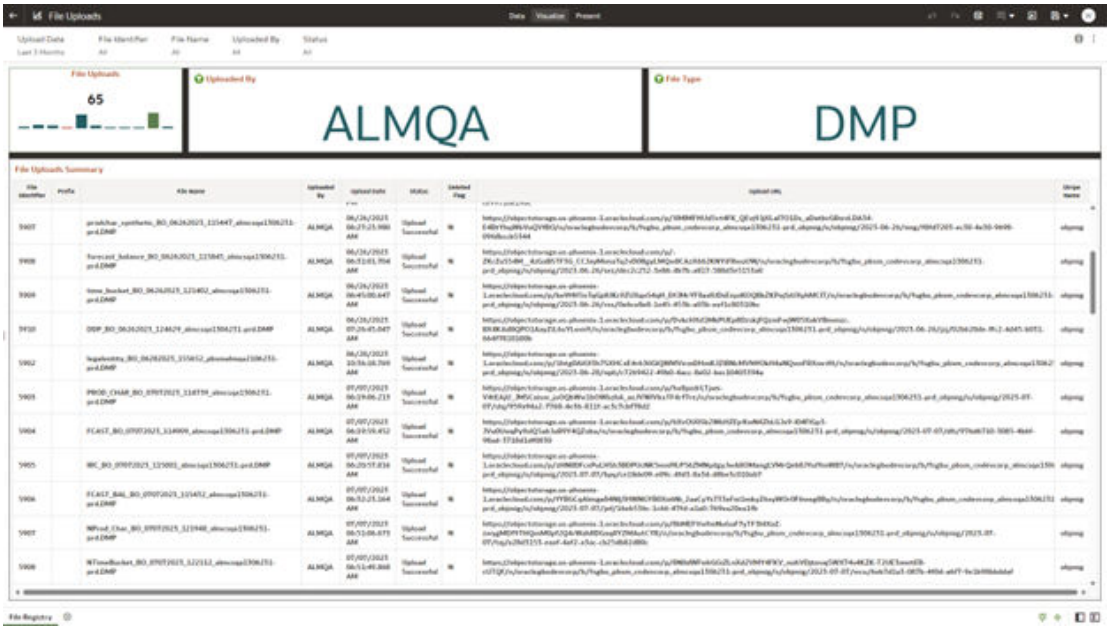
DQ Results: When user right clicks on any element and navigates to DQ Result, the selected object will get passed as a filter and pass this filter in DQ results Canvas.

DQ Result Details: When user right clicks on any element and navigates to DQ Result Details, the selected object will get passed as a filter and pass this filter in DQ Results Details Canvas.

5.3.5 File Uploads Report

To access the File Uploads report, from the LHS menu, select **Operational Analysis**, and then select **File Uploads**.

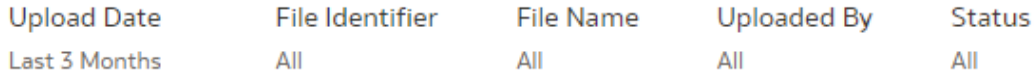
Figure 5-22 File Upload Report



Report Common Filters

You can use a series of canvas level pinned Prompts to filter the data according to Functional Key Attributes as follows:

Figure 5-23 Canvas Prompt Filters



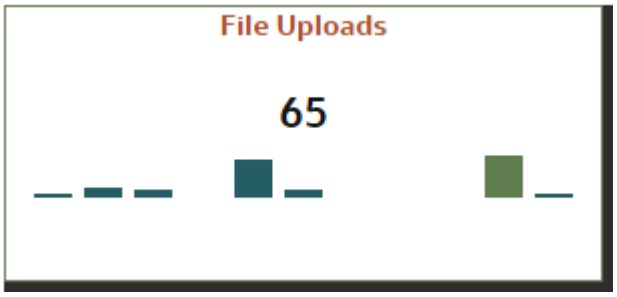
The following filters are available:

- **Update Date**: Use this filter to select the Update Date. The selection default is Last 3 Months.
- **File Identifier**: Use this filter to select a specific File Identifier.
- **File Name**: Use this filter to select a specific File Name.
- **Upload By**: Use this filter to select Upload By.

Canvas File Uploads

This chart shows the total number of files uploaded based on a reporting period.

Figure 5-24 Canvas File Uploads



Canvas Uploads by

This filter enables you to view the details of the users who have uploaded the files via the UI or batch process.

Figure 5-25 Canvas Uploads by

Canvas File Type

This filter the data by the file type. In this case, it's DMP, but it can be CSV, TXT, or other formats supported by the UI.

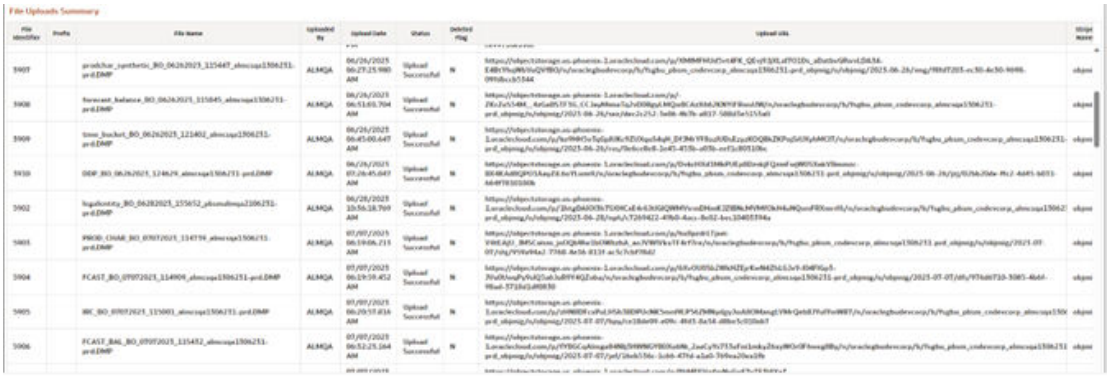
Figure 5-26 Canvas File Type

Canvas Summary

This table gives a clear view of detailed file upload information, that is displayed based on the search filters. Here, you can see the file identifier, prefix, File Name, the user

who uploaded the file, Upload Data, status, Deleted Flag – which identifies if the file has been deleted, and the Upload URL.

Figure 5-27 Canvas Summary



5.3.6 Groups and Roles Report

To open the Group and Users Report, from the LHS menu, select **Operational Analysis**, and then select **Groups and Roles Report**.

The Groups and Roles Report Reporting reports section is arranged as a set of canvases, classified into the following:

- Master Registry for Groups - Roles - Functions
- User to Groups Mapping
- Group to Roles Mapping
- Roles to Functions Mapping

Report Common Filters

You can use a series of canvas-level pinned Prompts to filter the data according to Functional Key Attributes as follows:

Figure 5-28 Canvas Prompt Filters for Users, Groups and Roles

The following filters are available:

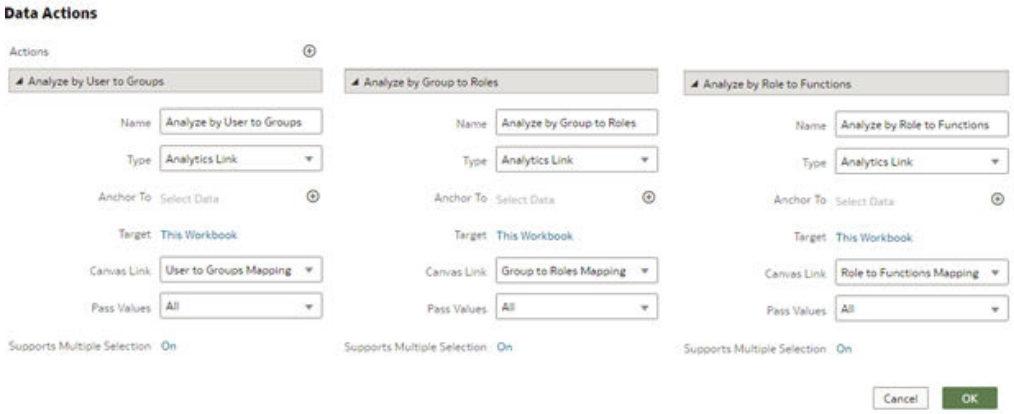
- **User ID**: To select/search for a specific user ID.
- **Group Code**: To select/search for a specific group code.
- **Group Name**: To select/search for a specific group name.
- **Role Name**: To select/search for a specific role name.

- **Role Code**: To select/search for a specific role code.
- **Function Code**: To select/search for a specific function code.
- **Function Name**: To select/search for a specific function name.

Report Data Action

The reports provide the capability to analyze data across canvases via a Data Action. The following are the Data Action Configuration details:

Figure 5-29 Data Action Configuration



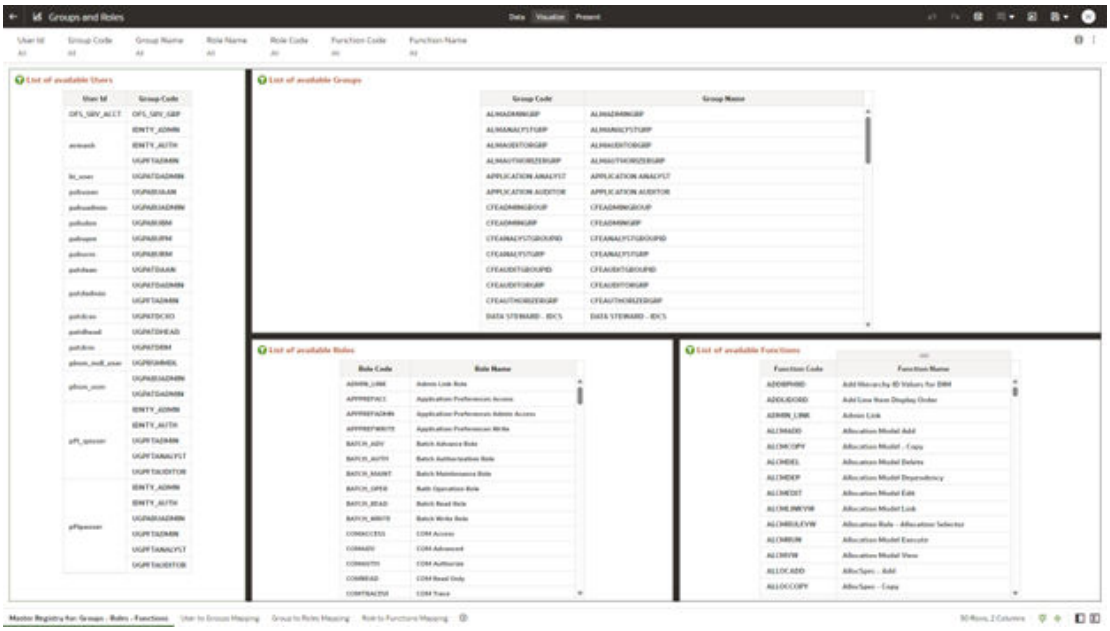
You can analyze by User to Groups, Group to Roles, or Role to Functions.

Report Master Registry For Groups, Rules, Functions

The Master Registry for Groups-Roles-Functions, displays users mapped from the Identity Cloud Service (or IDCS) into PBSMCS applications based on the user ID, user group, and related roles and functions, which are assigned to off the shelf groups.

Note that, IDCS enables you to set up and manage users and groups, and assigns users to different user groups. You can also use the interactive charts available in the report to analyze the groups, roles, and functions for a given user.

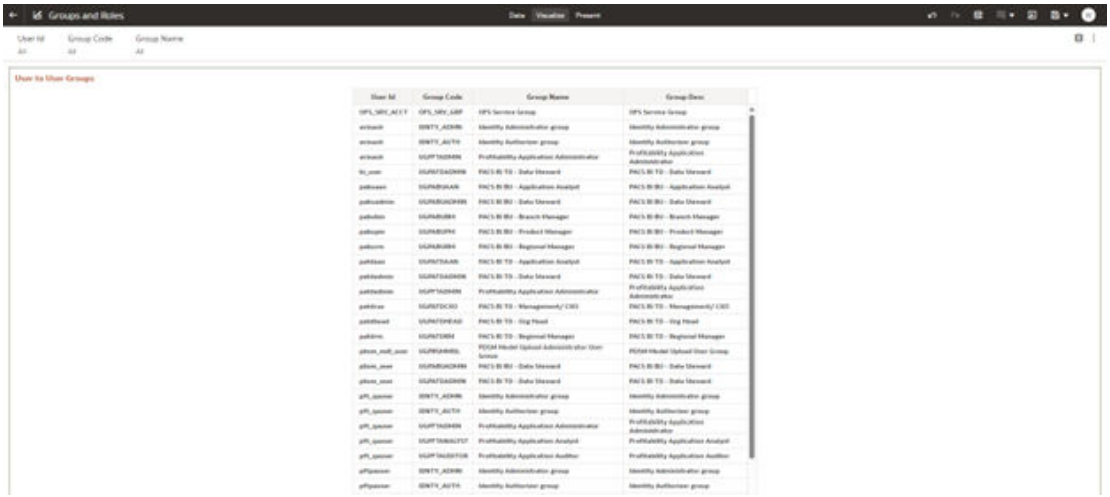
Figure 5-30 Groups and Roles



User Group Mapping

In this canvas, you can view the User ID, Group Code, Group Name, and the Group Description. By using the User ID filter at top to search for a particular user, you can see the corresponding group name and description for the selected user.

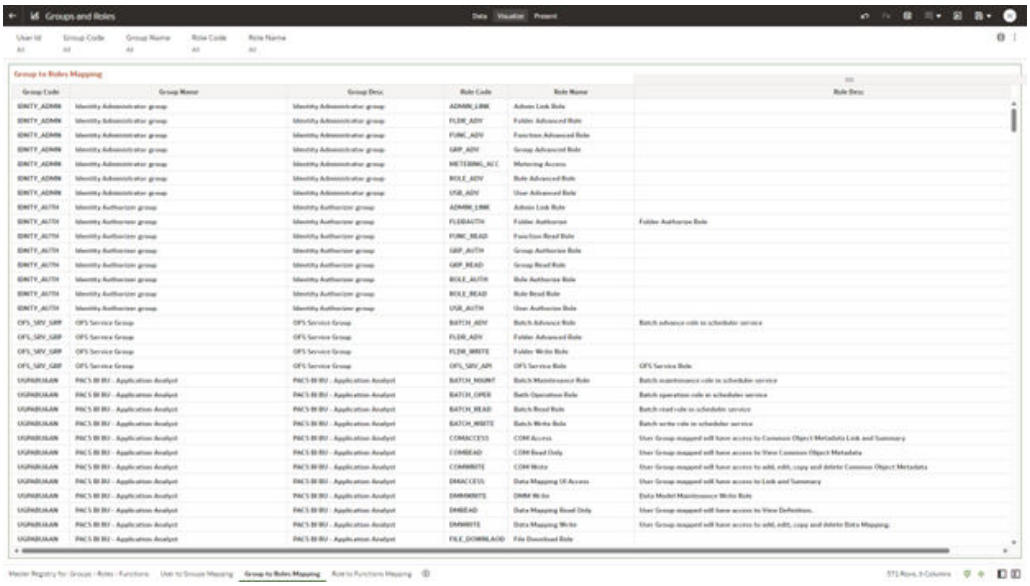
Figure 5-31 User Group Mapping



Group to Rules Mapping

In this canvas, you can filter using User ID, Group Code, Group Name, Role Code, and Role Name. For example, you can filter using a particular role name to view the groups assigned to that role.

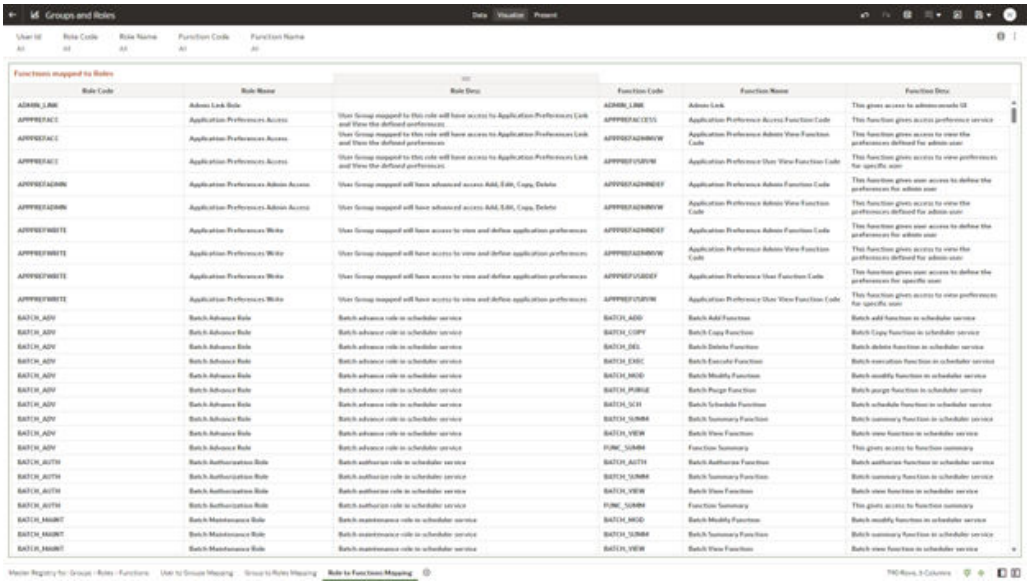
Figure 5-32 Groups to Role Mapping



Rule to Functions Mapping

This canvas displays all the functions mapped to the roles. You can filter based on User ID, Role Code, Role Name, Function Code and Function Name. For example, you can select a particular role, to view the role name, description, and the function assigned to that role.

Figure 5-33 Role to Functions Mapping



5.4 Management Reporting

To access the PA Management Reporting canvas, select Analytics from the LHS Menu, and then select Management Reporting.

Management Reporting is designed to provide timely and actionable Management Reports across organization, line of business, products, and legal entities. In addition to standard income statement and balance sheet reporting, you also get Risk Adjusted Performance Management (RAPM) reporting and scenario comparison analysis for profitability measures.

5.4.1 Management Ledger Based Reporting

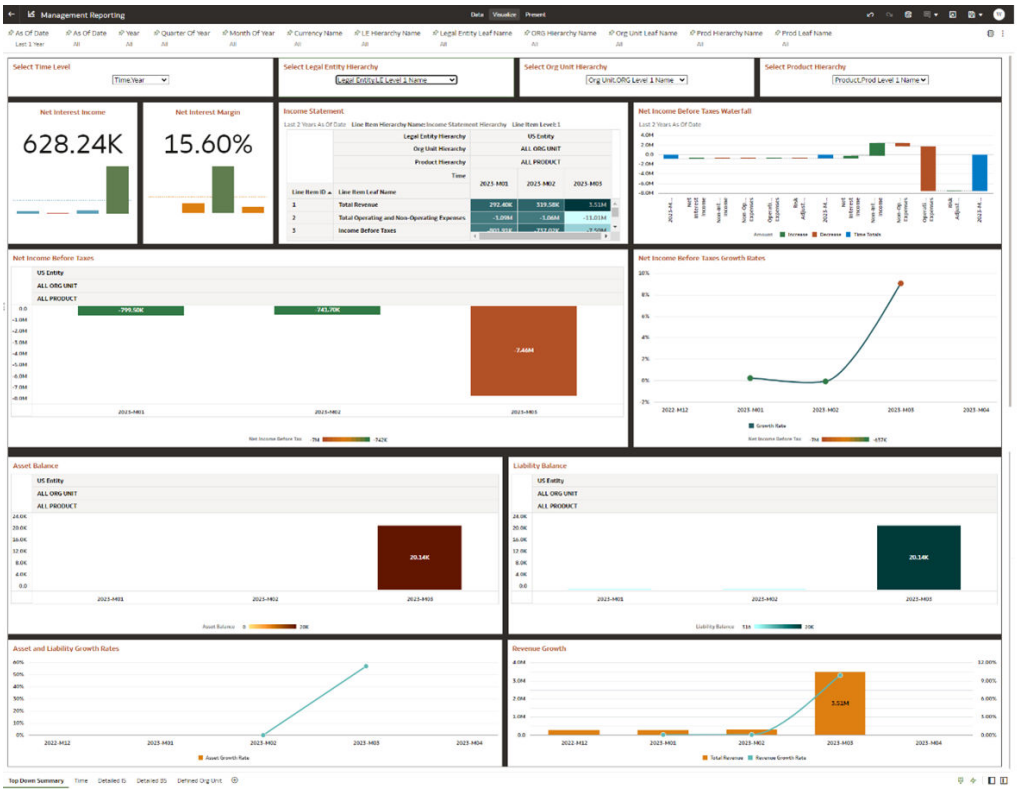
You can use the Management Reporting section to perform analysis on summary Top Down numbers fed from the General Ledger.

The report provides you analysis on the Income Statement, its drivers, key profitability metrics and balances. Trends are available for all of them including comparisons with Budget and Operating Plan. Analysis at the Organization Unit level including comparisons of the Top performing and bottom performing units are also provided.

The BI includes display of absolute values as well as growth rates over the previous available periods for key data elements. The Management Reporting reports section is arranged as a set of canvases, classified into the following:

- Top Down Summary
- Time
- Detailed IS
- Detailed BS
- Defined Org Unit

Figure 5-34 Management Ledger Based Reporting



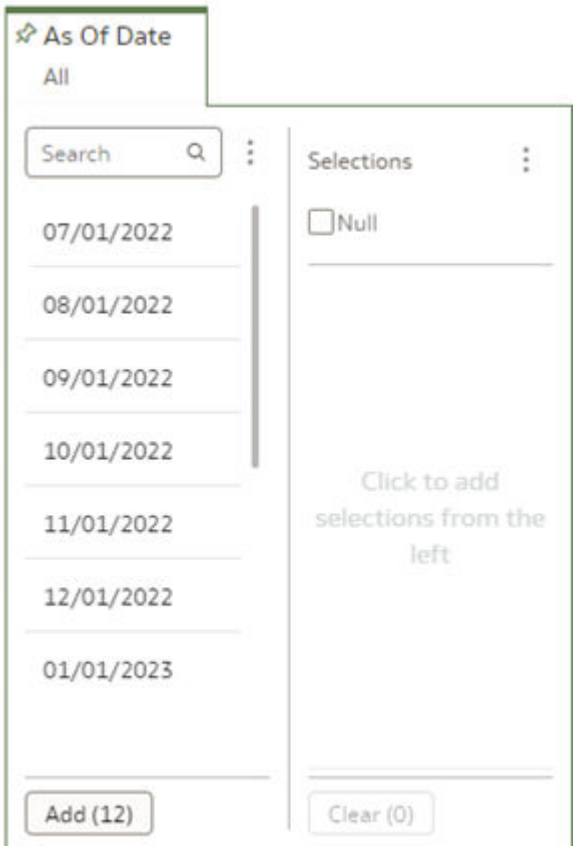
5.4.1.1 Report Common Filters

You can use a series of canvas level pinned Prompts to filter the data according to Functional Key Attributes as follows:

Figure 5-35 Canvas Prompt Filters for Time Dimension

- **As of Date:** You can use this filter to isolate a selected timeframe for the analysis. The following screenshot displays the possible options that this filter provides against the Time Dimension.

Figure 5-36 As of Date Selection



- Additional Filters for the Time Dimension as follows:
  - As of Date (Year)
  - As of Date (Day)
  - Year
  - Quarter of Year
  - Month of Year

Figure 5-37 Other Canvas Prompt Filters

- **Currency Name:** You can use this filter to select a specific Currency Code for the underlying preselected reporting currency.
- **Legal Entity Hierarchy Name:** This filter is for the group filtering on Legal Entity key processing dimension. As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, you must select the Leaf Name with only a single value simultaneously to see results at leaf level.

- **Legal Entity Leaf Name:** You can use this filter to select the Legal Entity Leaf Name corresponding to the hierarchy.
- **Org Unit Hierarchy Name:** This filter is for the group filtering on Organization Unit key processing dimension. As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, you must select the Leaf Name with only a single value simultaneously to see data at the leaf level.
- **Org Unit Leaf Name:** You can use this filter to select the Org Unit Leaf Name corresponding to the hierarchy.
- **Product Hierarchy Name:** This filter is for the group filtering on Product key processing dimension. As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, you must select the Leaf Name with only a single value simultaneously to view results at leaf level.
- **Product Leaf Name:** You can use this filter to select the Product Leaf Name corresponding to the hierarchy.

5.4.1.2 In canvas Variable Prompts

Figure 5-38 In-canvas Prompt Filters for Top Down Summary and Detailed Income Statement

- **Select Time Level:** You need to select Year/ Half Year/Quarter/ Month from this prompt to display the preference of the time block for the analysis.
- **Select Legal Entity Hierarchy:** You can use this filter to select the LE Level Name pertaining to the LE Hierarchy level, for rolling up the results on the underlying Legal Entity Leaves that are part of the selected hierarchy.
- **Select Org Unit Hierarchy:** You can use this filter to select the Org Unit Level Name pertaining to the Org Unit Hierarchy level, for rolling up the results on the underlying Org Unit Leaves that are part of the selected hierarchy.
- **Select Product Hierarchy:** You can use this filter to select the Product Level Name pertaining to the Product Hierarchy level, for rolling up the results on the underlying Product Leaves that are part of the selected hierarchy.

Figure 5-39 In-canvas Filters for Time and Defined Org Unit canvas

- **Select Income Statement Reporting Line:** This is a mandatory filter for the group filtering on the Income Statement reporting line dimension. The following filter values are available for selection:
  - **Net Income Before Tax:** Net income before tax is the amount of profit made by the financial institution before income tax is paid. This figure is found by subtracting total expenses from total revenue.

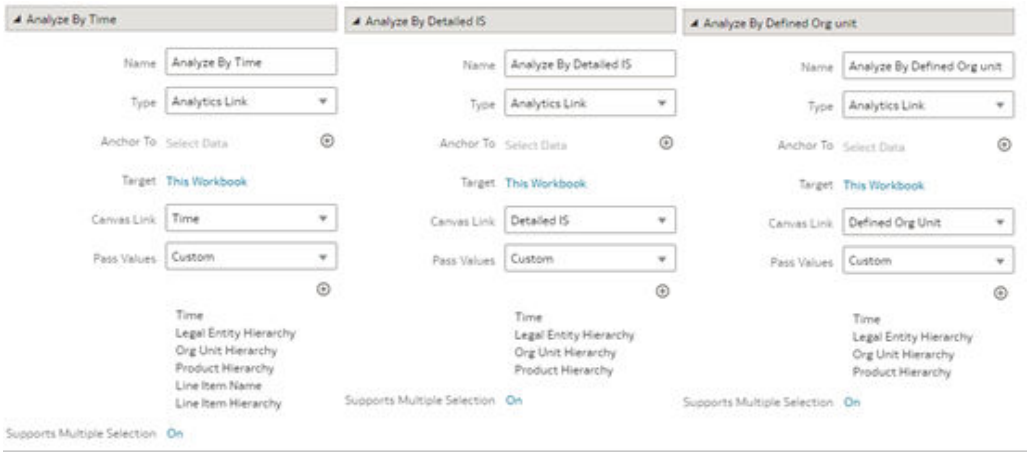
  - **Operating Expense:** Operating Expenses are expenses incurred by the bank or financial institution to carry out normal business operations.
  - **Non Operating Expense:** A non-operating expenses are costs that are not directly related to core business operations of the bank. Typical examples of non-operating expenses for a bank are credit losses, recoveries, restructuring costs, write-offs and so on.
  - **Total Revenue:** Total revenue is the total amount of income earned by the bank by selling products and services. It determines how well a company is bringing in money from its core operations of interest arbitrage and other income like fees and commissions.
  - **Net Interest Income:** Net Interest Income (NII) is the difference between the revenue generated from a bank's interest-bearing assets and expenses incurred while paying its interest-bearing liabilities. A bank's assets consist of personal and commercial loans, mortgages, securities etc. A bank's liabilities typically consist of customer deposits.
  - **Non Interest Income:** The non-interest income is the revenue generated by the banks and financial institutions, usually from the non-core activities (loan processing fee, late payment fees, credit card charges, service charges, penalties, etc. net off waivers).
  - **Total Expense:** Total Expenses means the sum of cost of sales and operating expenses (general, administrative, sales and marketing expenses) and non-operating expenses.
  - **Credit Loss Provision:** The provision for credit losses is an estimation of potential losses that a bank might experience due to credit risk. The provision for credit losses is treated as a non-operating expense on the company's financial statements.

- **Select Time Level:** You need to select Year/ Half Year/ Quarter/ Month from this prompt to display the preference of the time block for the analysis.
- **Select Legal Entity Hierarchy:** You can use this filter to select the LE Level Name pertaining to the LE Hierarchy level, for rolling up the results on the underlying Legal Entity Leaves that are part of the selected hierarchy.
- **Select Org Unit Hierarchy:** You can use this filter to select the Org Unit Level Name pertaining to the Org Unit Hierarchy level, for rolling up the results on the underlying Org Unit Leaves that are part of the selected hierarchy.
- **Select Product Hierarchy:** You can use this filter to select the Product Level Name pertaining to the Product Hierarchy level, for rolling up the results on the underlying Product Leaves that are part of the selected hierarchy.

5.4.1.3 Report Data Action

These reports provide the capability to analyze data across canvases via a data action. The following are the data action configuration details:

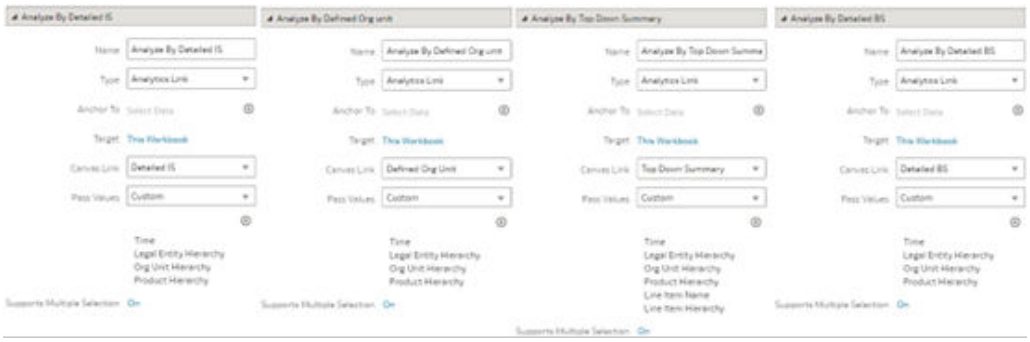
Figure 5-40 Data Action configuration in Top Down Summary canvas



From every chart available in “Top Down Summary”, except for “Net Interest Income” and “Net Interest Margin” charts, you can select a value, and then navigate to the Time, Detailed Income Statement and Defined Org Unit canvas.

In order to do so, with a right click on the chart selection, the data action option (Analyze) will appear for you to be able to pass on the data filters to the canvas that you select.

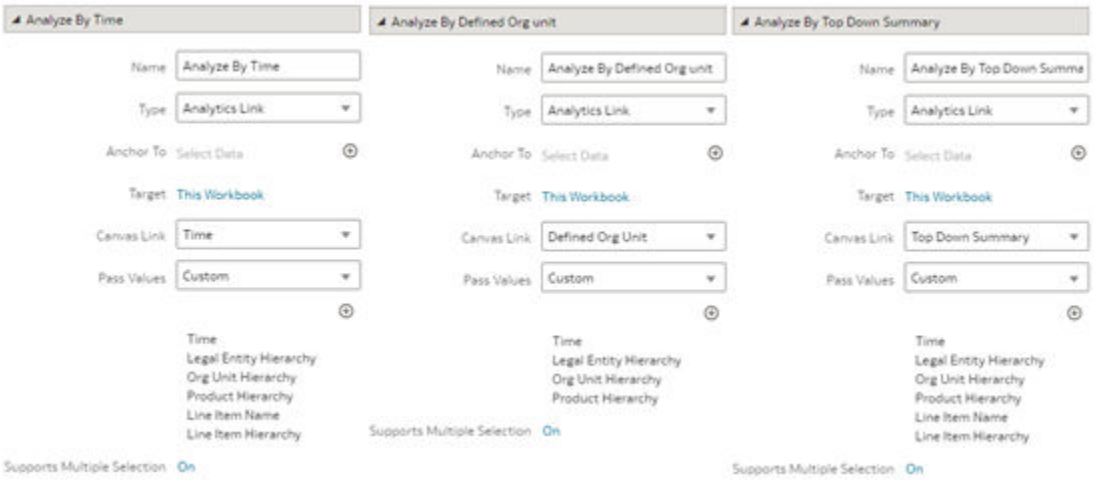
Figure 5-41 Data Action configuration in Time canvas



From every chart available in the Time canvas, you can select a value, and then navigate to the Detailed Income Statement, Defined Org Unit canvas,Top Down Summary and Detailed BS.

In order to do so, with a right-click on the chart selection, the data action option (Analyze) will appear for you to be able to pass on the data filters to the canvas that you select.

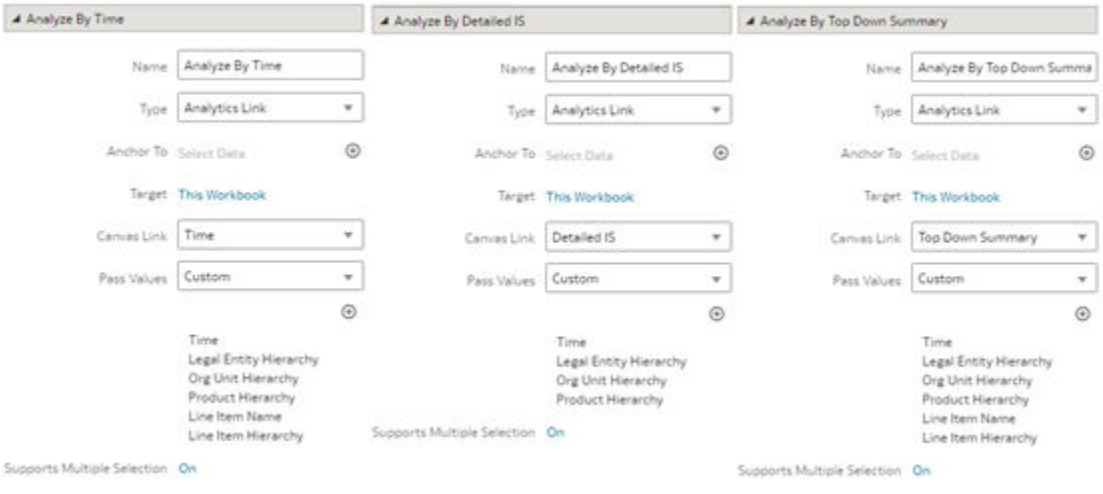
Figure 5-42 Data Action configuration in Detailed Income Statement canvas



Note that although Line Item Name and Hierarchy appear as a pass value, tool limitation currently limits passing these values to the other canvases.

In order to invoke Data Action within Detailed Income Statement report, with a right click on the reporting line selection, the data action option will appear for you to be able to navigate further to the canvas that you select.

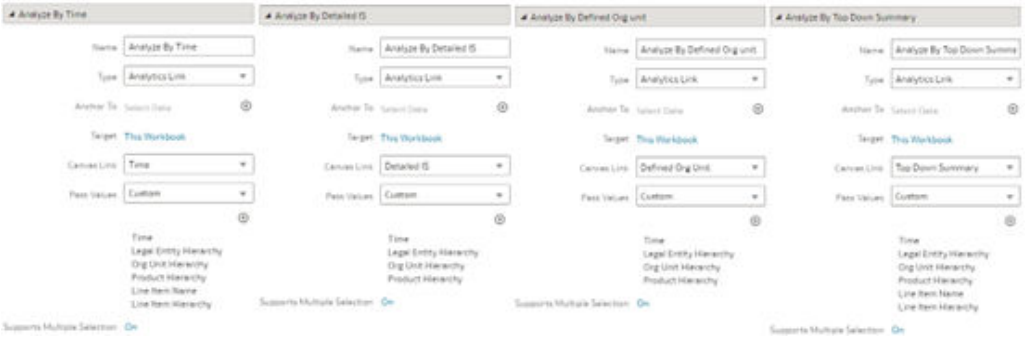
Figure 5-43 Data Action configuration in Defined Org Unit canvas



From every chart available in the Defined Org Unit canvas, you can select a value, and then navigate to the Time, Detailed Income Statement or Top Down Summary canvas.

In order to do so, with a right click on the chart selection, the data action option will appear for you to be able to navigate to the canvas you selected.

Figure 5-44 Data Action configuration in Detailed BS



From every chart available in the Detailed BS canvas, you can select a value, and then navigate to the Time, Detailed Income Statement Defined Org Unit, or Top Down Summary canvas.

In order to do so, with a right-click on the chart selection, the data action option will appear for you to be able to navigate to the canvas you selected.

5.4.1.3.1 Using a Sample Data Action

The following two screenshots are showing the procedure you have to follow; the first one shows how to perform the data action on a specific selection, and the second one the result of this Data Action Navigation.

Figure 5-45 Use Data Action to Navigate to Defined Org Unit from Top Down Summary

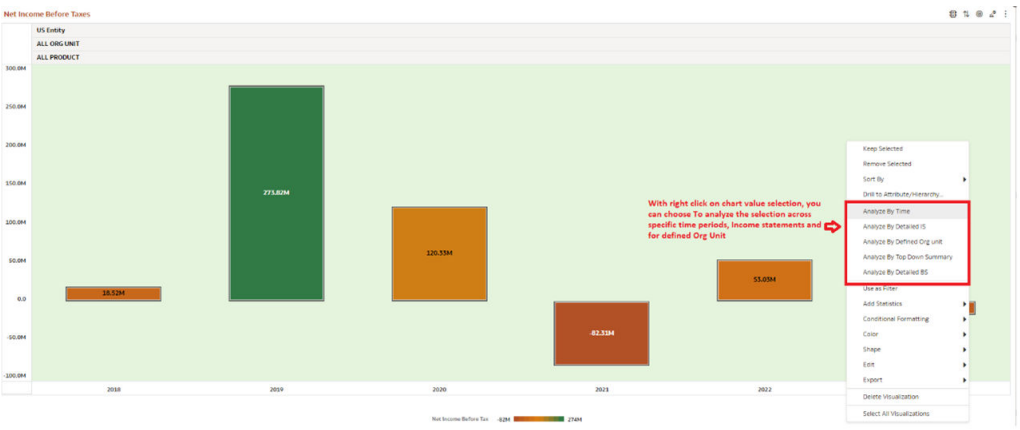
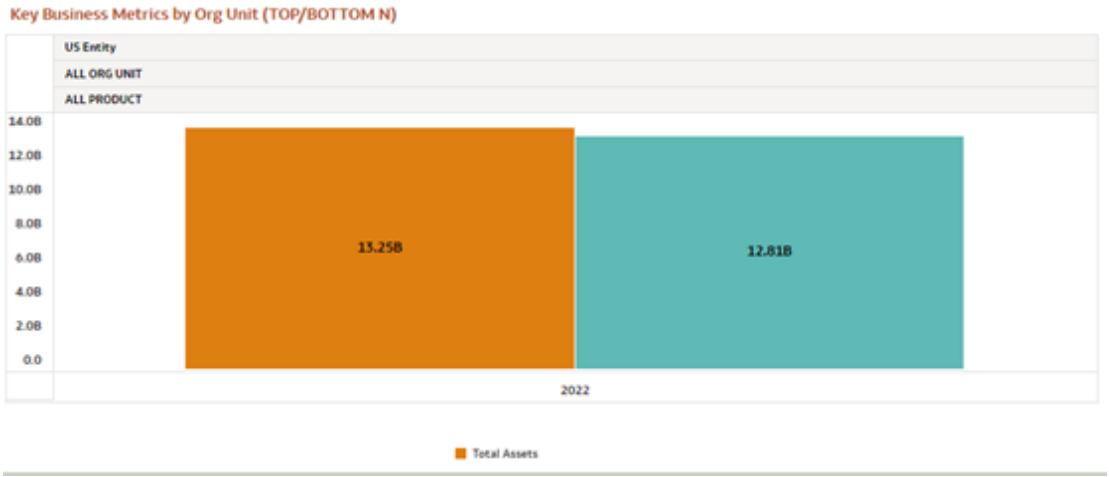


Figure 5-46 Result of Data Action Navigation



5.4.1.4 Top Down Summary

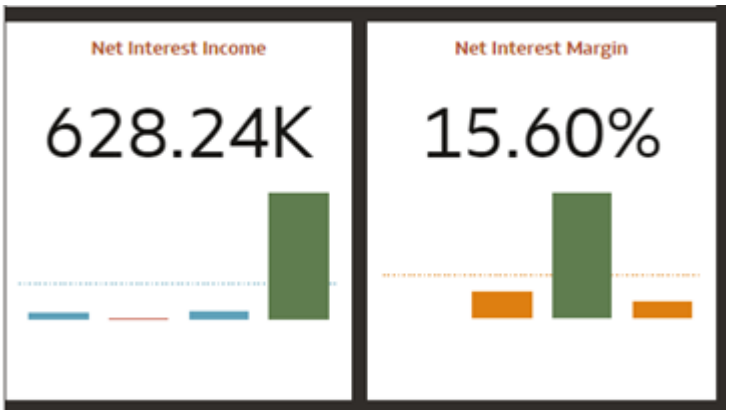
The Top Down Summary Report provides a view of the descriptive analytics related to the heads of Income and Expenses.

You can use a series of Report Prompts, as previously described, to filter the data according to key attributes pertaining to the underlying Management Ledger tables. The canvas provides a summary view to key management reports for better performance tracking and profitability management. Distribution of Assets and Liabilities at enterprise and Income statement Analysis at enterprise/ Legal entity, Org Unit, and Product level along with Impact of on NII and NIM.

The report displays the underlying data according to the following Charts' logic:

- **Net Interest Income and Net Interest Margin:** The chart displays the absolute value for the Net Interest Income and the Net Interest Margin as a percentage for the selected time level. NIM is usually Net Interest Income expressed as a percentage that is, it is the net interest income a bank or financial institution earns in percentage terms on the average interest-earning assets in a specified period.

Figure 5-47 Net Interest Income and Net Interest Margin

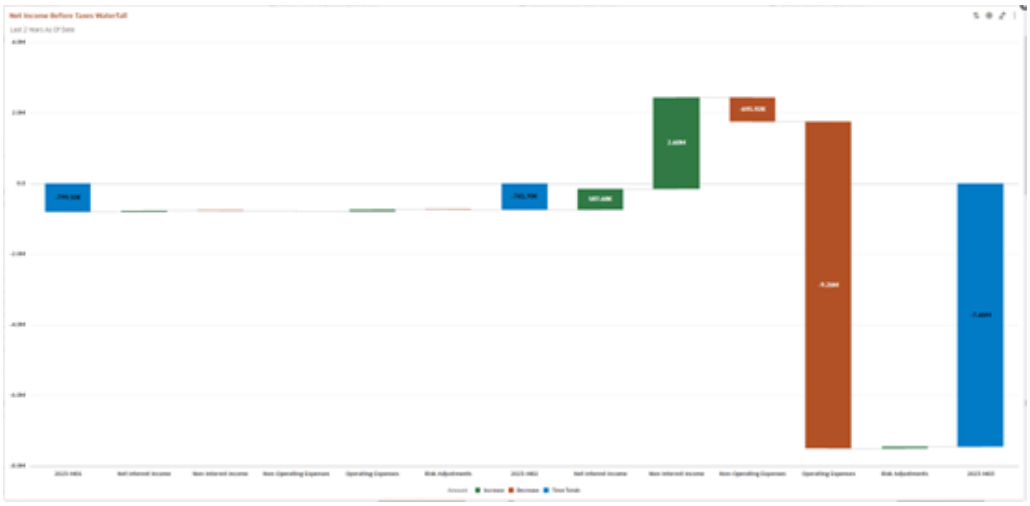


Income Statement: The income statement is a financial statement that shows you the bank's income and expenditures. It also shows whether the bank is making profit or loss for the given period. The Top Down Summary canvas displays a summary Income statement showing selected reporting lines with a dedicated canvas for the detailed statement showing reporting lines at multiple levels. Using the filter prompt in the chart you can select the 2 periods you want to compare.

Figure 5-48 Income Statement

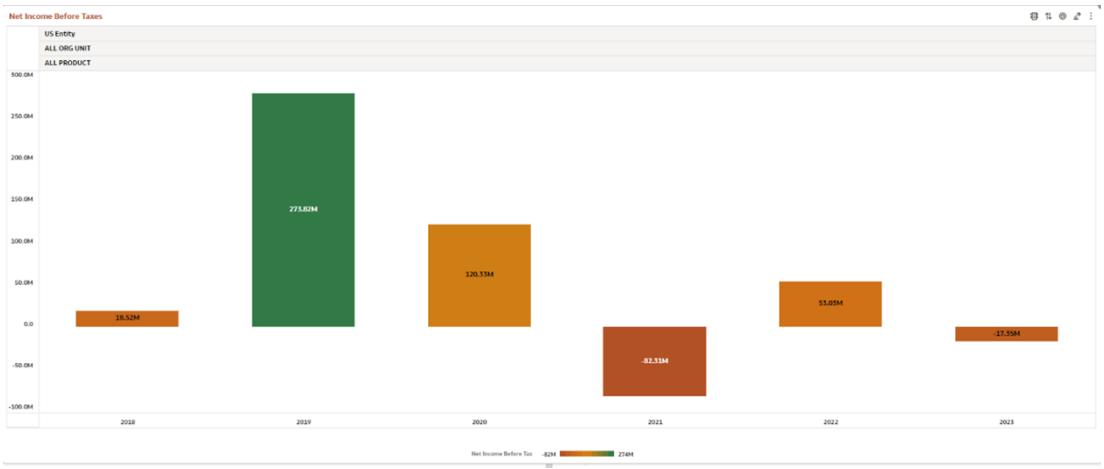
Net Income Before Taxes Waterfall: The NIBT waterfall shows the incremental contribution of the displayed reporting lines over the base period that has been selected as the comparison point. For this report, the default view is of the last two time periods.

Figure 5-49 Net Income Before Taxes Waterfall



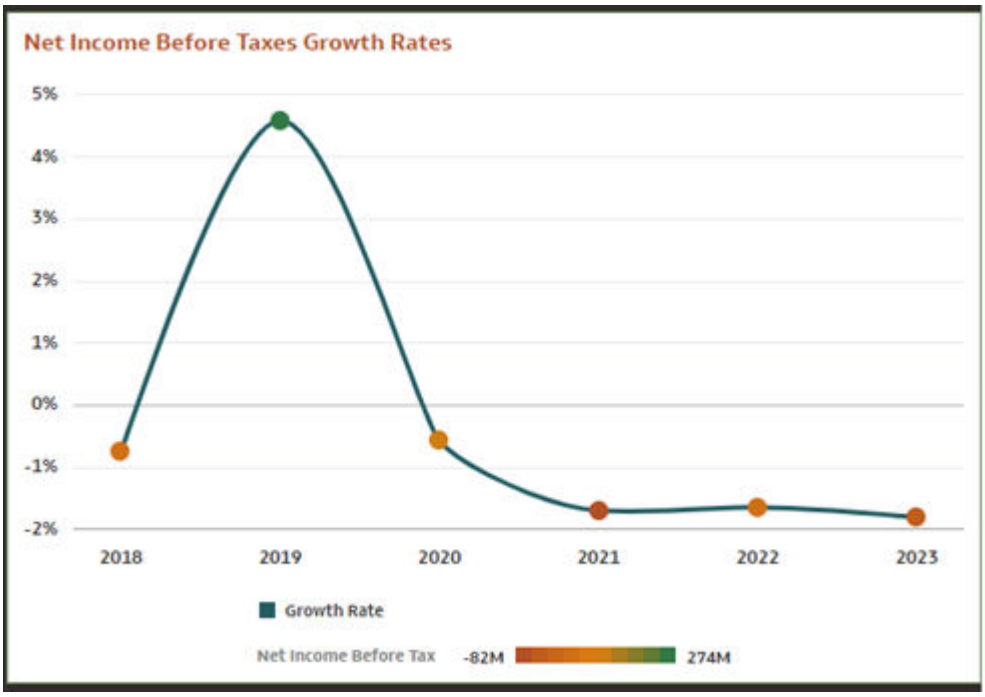
Net Income Before Taxes: The chart displays the absolute value for the Net Income Before Taxes for the selected time period/s. The default view of this chart is for the last 5 years from the current As-of-Date.

Figure 5-50 Net Income Before Taxes



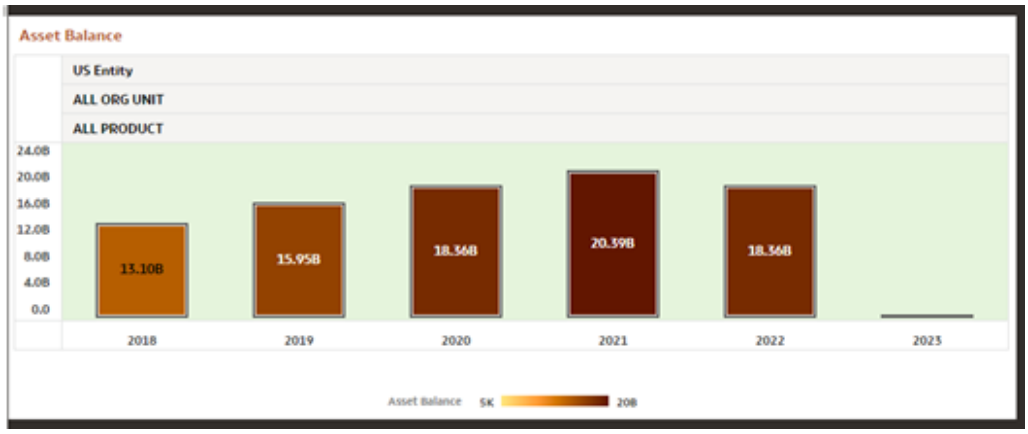
Net Income Before Taxes Growth Rates: The chart displays the relative percentage variation of NIBT that is calculated over the previous period available as per the selection.

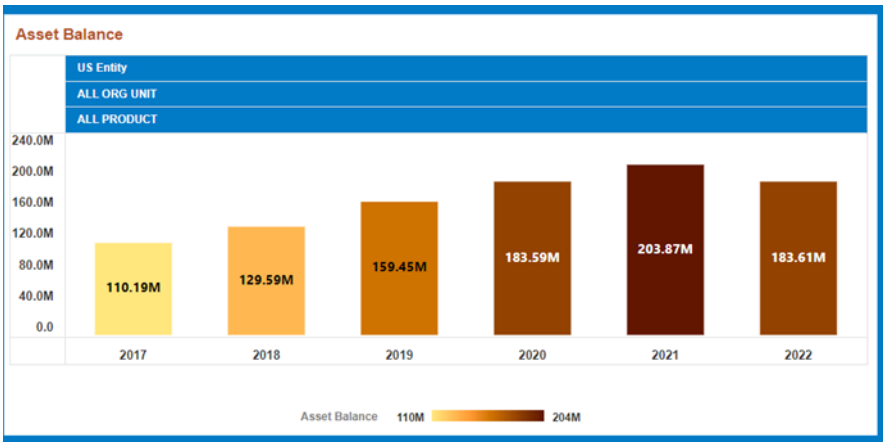
Figure 5-51 Net Income Before Taxes Growth Rates



Asset Balance: The chart displays the absolute value for Asset Balances for the selected time period/s. The default view of this chart is for the last 5 years from the current As-of-Date.

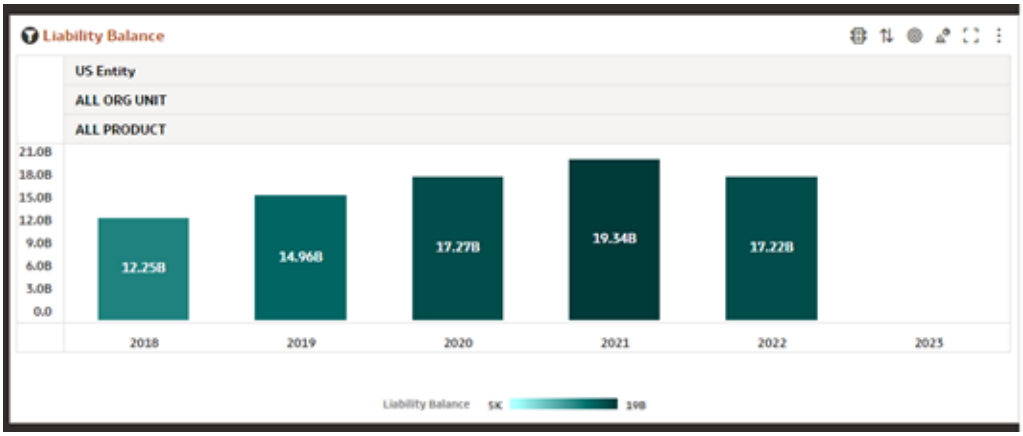
Figure 5-52 Asset Balance





Liability Balance: The chart displays the absolute value for Liability Balances for the selected time period/s. The default view of this chart is for the last 5 years from the current As-of-Date.

Figure 5-53 Liability Balance



Asset and Liability Balance Growth Rates: The chart displays the relative percentage variation of Asset and Liability balance values that is calculated over the previous period available as per the selection. The default view of this chart is a comparison over the past 5 years.

Figure 5-54 Asset and Liability Balance Growth Rates

5.4.1.5 Time

The Time Report allows you to track profitability trends and reporting line trends based on key dimensions, conduct scenario analysis at an aggregated level to gauge profitability variations with Budget and Operating plan. In addition, you can compare actual performance with budgeted/forecasted report.

KPIs are reported across time along with the comparison with plan report users are able to monitor performance, analyze specific metrics, and compare them to budgets or specific benchmarks. They can spot deviations and take corrective action. Opportunities to improve performance can also be identified. The DV tool provides visual representations focusing on the variations observed.

Figure 5-55 Management Reporting

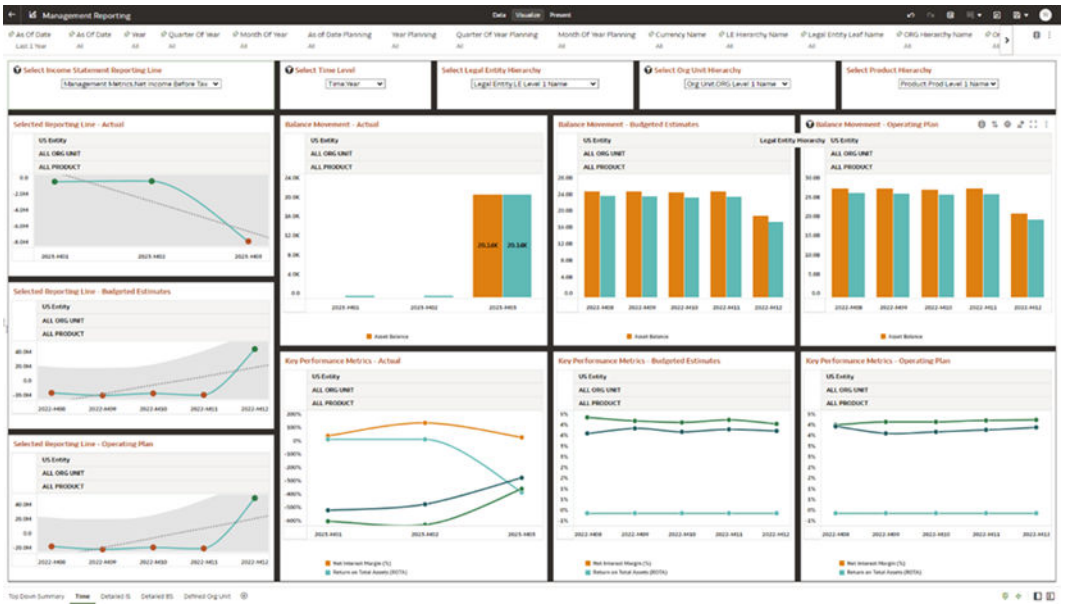


Figure 5-56 Selected Income Statement Reporting Lines

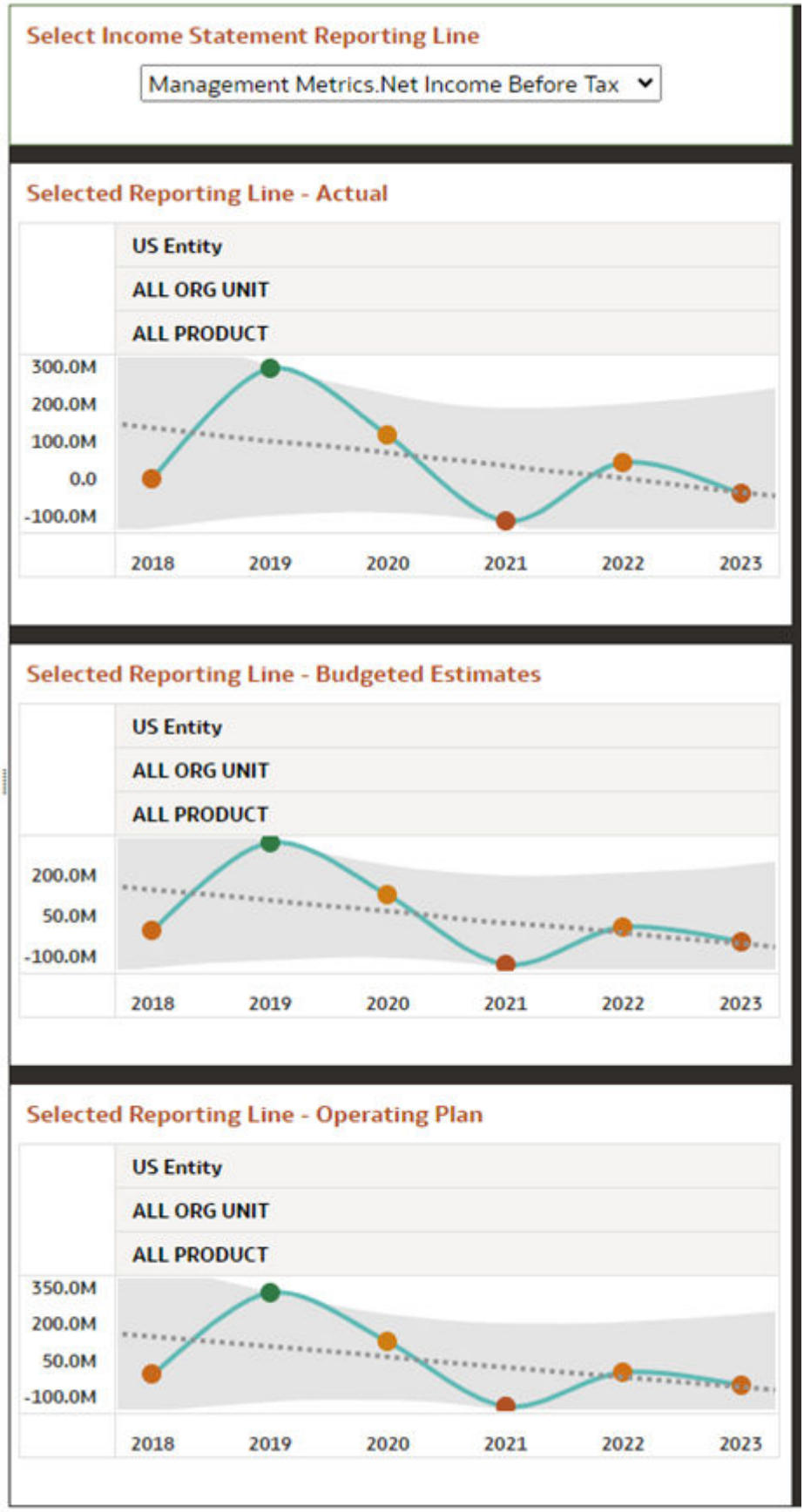
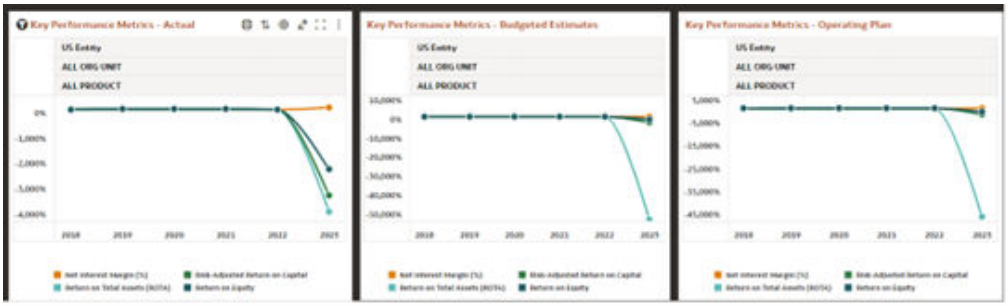


Figure 5-57 Overall Balances

- **Key Performance Metrics**: The following Key Performance Metrics can be observed from these set of charts.ul
  - **Net Interest Margin**: NIM is usually Net Interest Income expressed as a percentage that is, it is the net interest income a bank or financial institution earns in percentage terms on the average interest-earning assets in a specified period.
  - **Return on Total Assets**: Return on Total Assets (ROTA) is a ratio that measures a company's earnings before taxes (NIBT) relative to its total Assets. It is expressed as a percentage.

Figure 5-58 Key Performance Metrics



The canvas displays the comparisons of the following scenarios:

- **Actual:** These are actual metric and performance numbers as reported by the bank in their financial statements. These numbers are the outcomes of operations and business strategy that have been executed in the past.
- **Budget:** A budget's primary goal is to determine how many resources to allocate to each Business Unit. A fallout of the budgeting exercise are specific expectations around revenue and expected reporting lines as well as financial metrics. Budget numbers thus make business units at different levels responsible for the variances with actual numbers.
- **Operating Plan:** An operating plan is a financial snapshot of the business in future, as it is best understood today. The result is a forecast of how the business is trending taking into account the latest performance drivers. The banks operating plan is updated regularly. In this way, executives can make changes in real time, adjusting their product strategy, market position, marketing approach, and staffing to minimize variance with budget numbers.

5.4.1.6 Detailed IS

The Detailed Income Statement Report as it implies details the granular level reporting lines of the P&L of a bank. Time-series reporting of the income statement, with respect to the last five time periods selected are provided at the granularity of month.

Details of the revenue and expenses lines makes it possible to identify the inconsistencies in these values over time. You can use a series of Report Prompts, as previously described, to filter the data.

The report displays the underlying data according to selection of Levels 2 through 8 that can be done in the chart selection. The default view of the report has the levels 2-5 pre-selected, which has the same view as in the Income Statement Summary on the Top Down canvas.

- **Levels 2-5**
  - Total Revenue
  - Net Interest Income
  - Non-Interest Income
  - Total Operating and Non-Operating Expenses
  - Operating Expenses
  - Non-Operating Expenses
  - Income before Taxes
  - Provisions for Credit Losses
  - Net Income Before Taxes
  - Tax Expense
- **Level 6**
  - Total Interest Income
  - Total Interest Expense
  - Non-Interest Revenue
  - Indirect Non-interest Income
  - Other Revenue
  - Advertising and Marketing
  - Processing Expenses
  - Sales and Marketing Expenses
  - Product Management Expenses
  - Business Management Expenses
  - Indirect Processing Expense
  - Indirect Distribution Expense
  - Deposit Insurance
  - Other Allocated Costs
  - Net Credit Losses

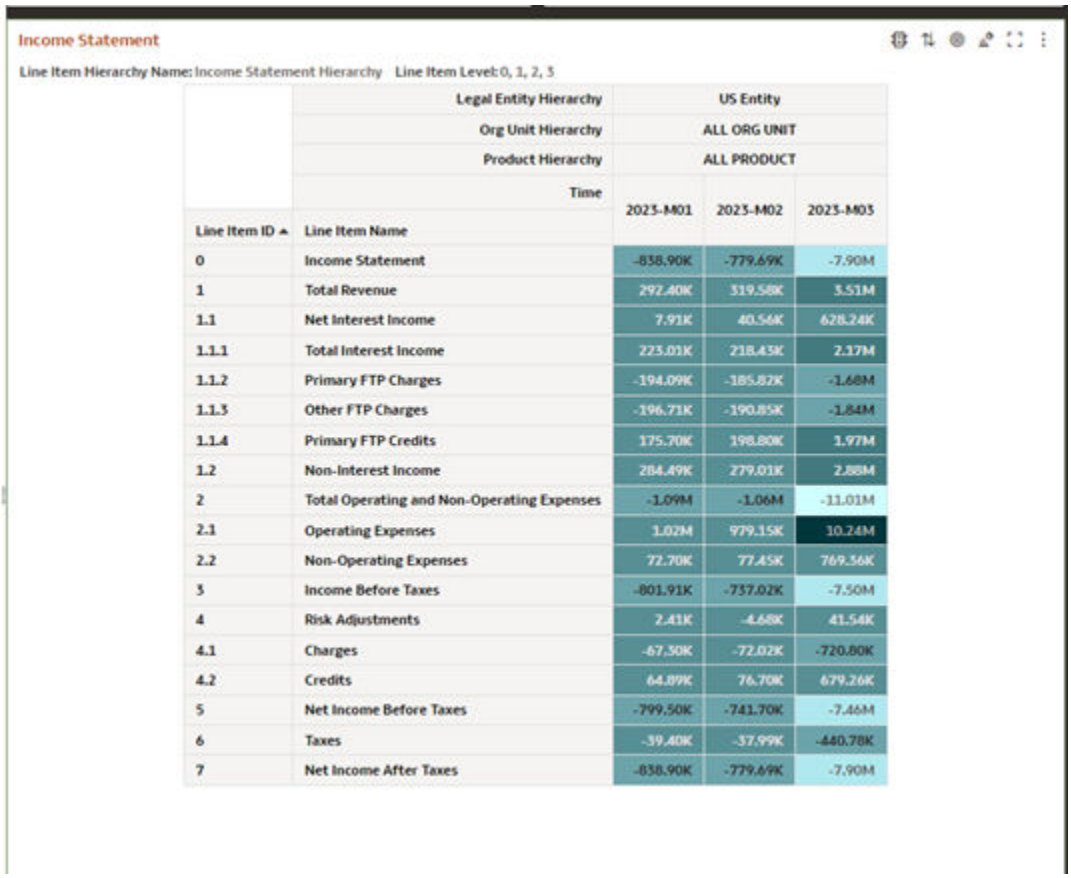
- **Level 7**
  - Agency Fees
  - Print and Production Expenses
  - Sales Commissions
  - Product Development Expenses
  - Miscellaneous Product Management Expenses
  - Brand Management Expenses
  - Miscellaneous Business Management Expenses
  - Technology and Infrastructure Expenses
  - Staff Costs
  - Depreciation
  - Amortization
  - Income from Discontinued Operations, Net of Taxes
  - Other Expense
  - Allocated Indirect Expenses
  - Allocated Non-cash Expenses
  - Credit Losses
  - Recoveries of amounts previously written-off
- **Level 8**
  - Other Income - Non-Customers
  - Allocated Other Income - Non-Customers
  - Total Brand Management Expenses
  - Business Promotion Expenses
  - Origination Expenses
  - Servicing Expenses
  - Collection Expenses
  - Direct Sales Expenses
  - Other Campaign Expenses
  - Miscellaneous Sales Expenses
  - Advertising Expenses
  - Credit for Other Allocated Liabilities
  - Credit for Liquidity
  - Amortization of Discount for Liability
  - Central Bank Int. Income
  - Credit for Float
  - Transfer Pricing Credit
  - Customer Break Funding Fees

- Amortization of Premium for Asset
- Amortization of Premium for Liability
- Amortization of Discount for Asset
- Transfer Pricing Charge
- Pricing Incentive
- Charge for Basis Risk
- Charge for Central Bank Reserves
- Charge for Liquidity
- Charge for Optionality
- Charge for Other Allocated Assets
- Commission
- Fees
- Penalties
- Other Income - Customers
- Waived Fees
- Early Redemption Fee
- Investment Income
- Branch Origination Expenses
- Mail Origination Expenses
- Phone Origination Expenses
- Loan Center Origination Expenses
- Origination Expenses, Other Channels
- Branch Platform Expenses
- Branch Teller Expenses
- In Network ATM Expenses
- Out of Network ATM Expenses
- Call Center Expenses
- E-Banking Expenses
- Statement Processing Expenses
- Loan Processing Expenses
- Compliance Expenses
- Commission on Collections
- Other Collection Expenses
- Amortization of Restructuring Expenses
- Gain or Loss on Sale of Assets from Discontinued Operations
- Income from Discontinued Operations

- **Level 9**

- Credit for Equity
- Economic Provision
- Executive and Other Overhead Expenses
- Other Processing Expenses

Figure 5-59 Detailed IS Report Default



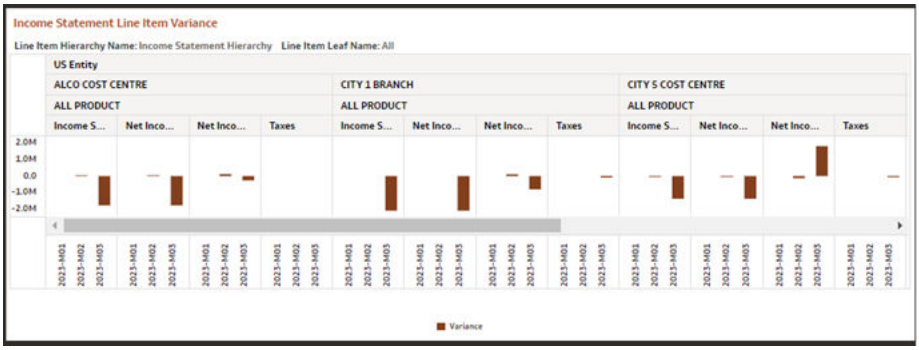
Income Statement

Line Item Hierarchy Name: Income Statement Hierarchy Line Item Level: 0, 1, 2, 3

	Legal Entity Hierarchy	US Entity		
	Org Unit Hierarchy	ALL ORG UNIT		
	Product Hierarchy	ALL PRODUCT		
	Time	2023-M01	2023-M02	2023-M03
Line Item ID ▲	Line Item Name			
0	Income Statement	-838.90K	-779.69K	-7.90M
1	Total Revenue	292.40K	319.58K	3.51M
1.1	Net Interest Income	7.91K	40.56K	628.24K
1.1.1	Total Interest Income	223.01K	218.43K	2.17M
1.1.2	Primary FTP Charges	-194.09K	-185.82K	-1.68M
1.1.3	Other FTP Charges	-196.71K	-190.85K	-1.84M
1.1.4	Primary FTP Credits	175.70K	198.80K	1.97M
1.2	Non-Interest Income	284.49K	279.01K	2.88M
2	Total Operating and Non-Operating Expenses	-1.09M	-1.06M	-11.01M
2.1	Operating Expenses	1.02M	979.15K	10.24M
2.2	Non-Operating Expenses	72.70K	77.45K	769.56K
3	Income Before Taxes	-801.91K	-737.02K	-7.50M
4	Risk Adjustments	2.41K	-4.68K	41.54K
4.1	Charges	-67.50K	-72.02K	-720.80K
4.2	Credits	64.89K	76.70K	679.26K
5	Net Income Before Taxes	-799.50K	-741.70K	-7.46M
6	Taxes	-39.40K	-37.99K	-440.78K
7	Net Income After Taxes	-838.90K	-779.69K	-7.90M

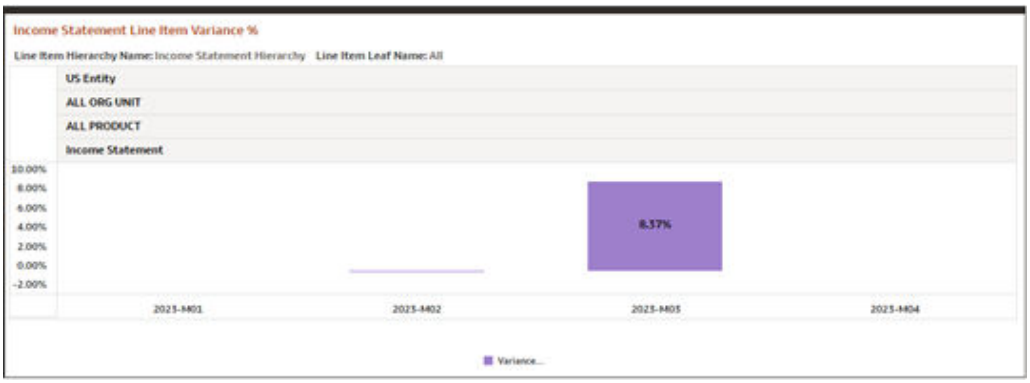
In this chart, you can look at how each Income Statement line item varies with respect to the absolute value during the previous time period.

Figure 5-60 Income Statement Line Item Variance Report



In this chart, you can look at how each Income Statement line item varies with respect to the percentage variation in absolute value when compared with the previous time period.

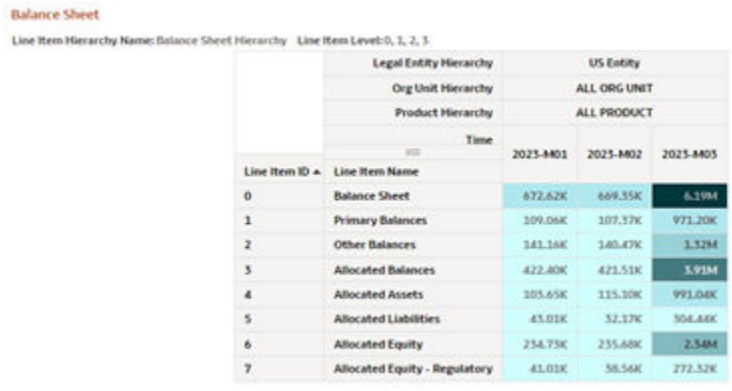
Figure 5-61 Income Statement Line Item Variance % Report



5.4.1.7 Detailed BS

The Detailed Balance Sheet Report as the name implies provides a view of the balance sheet which captures details around all the line items. The user can use the level selection filter to expand or contract the balance sheet.

Figure 5-62 Detailed BS Report Default



The Balance sheet line item variance and variance % reports work in the same way as in the case of the Detailed Income Statement canvas.

Figure 5-63 Balance Sheet Line Items Variance and Line Item Variance %

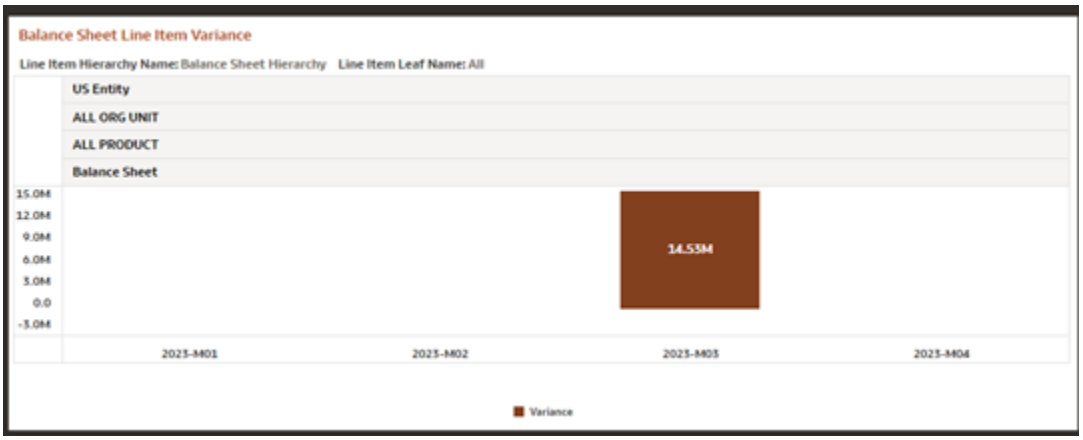
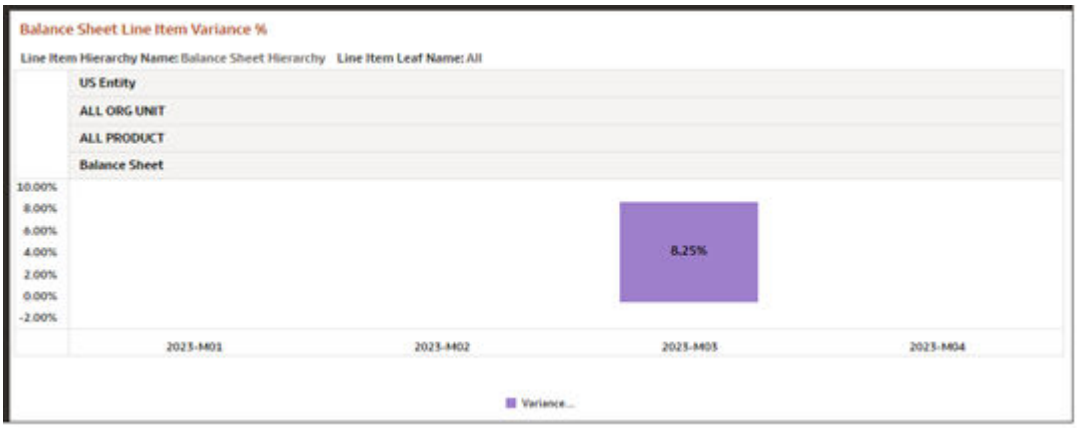


Figure 5-64 Balance Sheet Item Variance % Report



5.4.1.8 Defined Org Unit

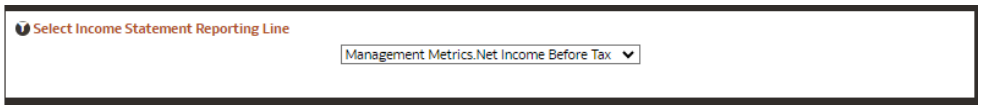
The Defined Org Unit report provides a view of the Top Down Ledger Data for different Organizational Units. The canvas empowers all org owners to access actionable profitability insight directly. The users can then assess risk-adjusted metrics such as return on assets (ROTA), return on Net Interest Margin (NIM), risk-adjusted return on capital (RAROC) or key performance indicators such as top 10 products by balance growth.

You can use a series of Report Prompts, as previously described, to filter the data. In addition, there are In-Report prompt selections to select the Top/ Bottom N org units that you are interested in, and the corresponding data will be displayed.

The report displays the underlying data according to the following Charts:

- **Org Unit wise contribution for Reporting Line (TOP N); the same is available for bottom view**
  In this chart, for the selected reporting line, the Top N (N selected from the chart prompt) and bottom N organization units are displayed in descending order of value of the reporting line.

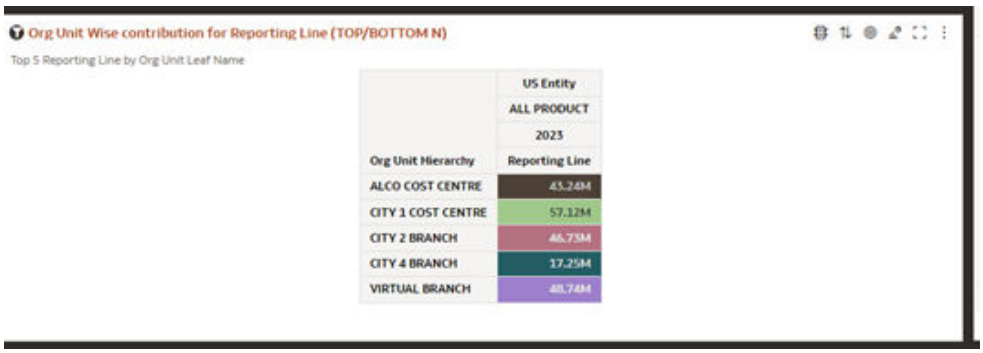
Figure 5-65 Income Statement Reporting Line



The report displays the underlying data according to the following Charts:

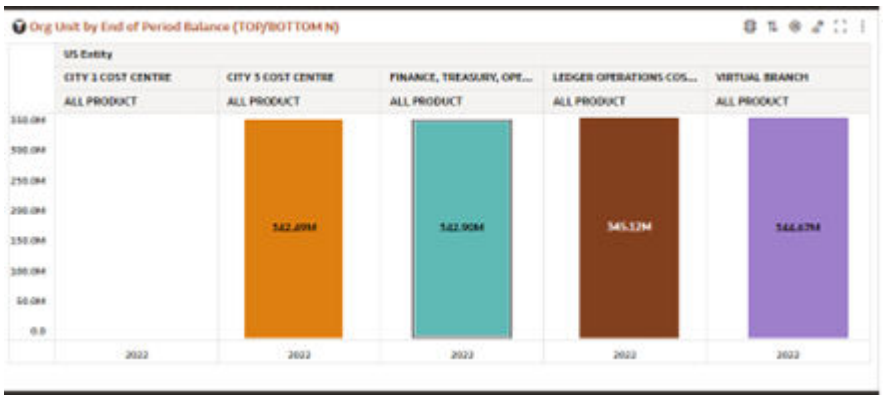
- **Org Unit wise contribution for Reporting Line (TOP/ BOTTOM N)**: The same is available for bottom view In this chart, for the selected reporting line, the Top N (N selected from the chart prompt) and bottom N organization units are displayed in descending order of value of the reporting line.

Figure 5-66 Org Unit wise contribution for Reporting Line (TOP/BOTTOM N)



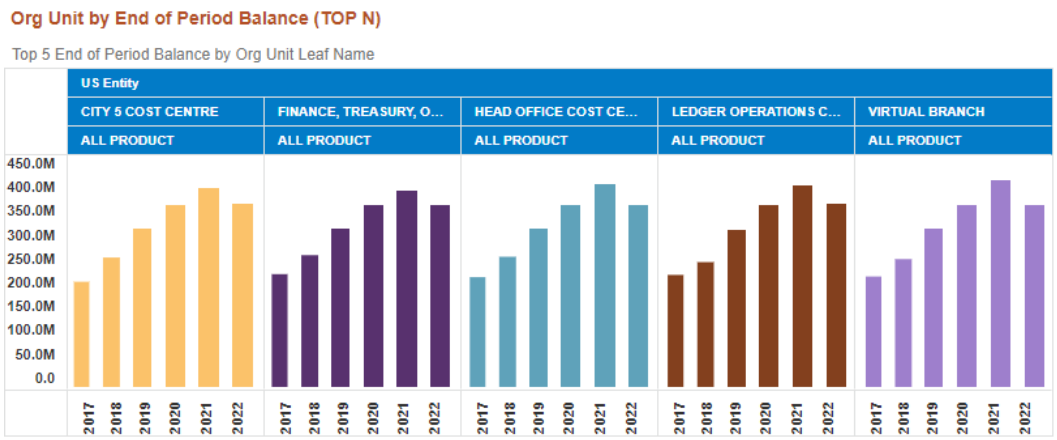
- **Org Unit by End of Period Balance (TOP/ BOTTOM N)**: the same is available for bottom view The chart displays the Top N (N selected from the chart prompt) and bottom N organization units sorted in a descending order by End of Period Balances.

Figure 5-67 Org Unit by End of Period Balance (TOP/BOTTOM N)



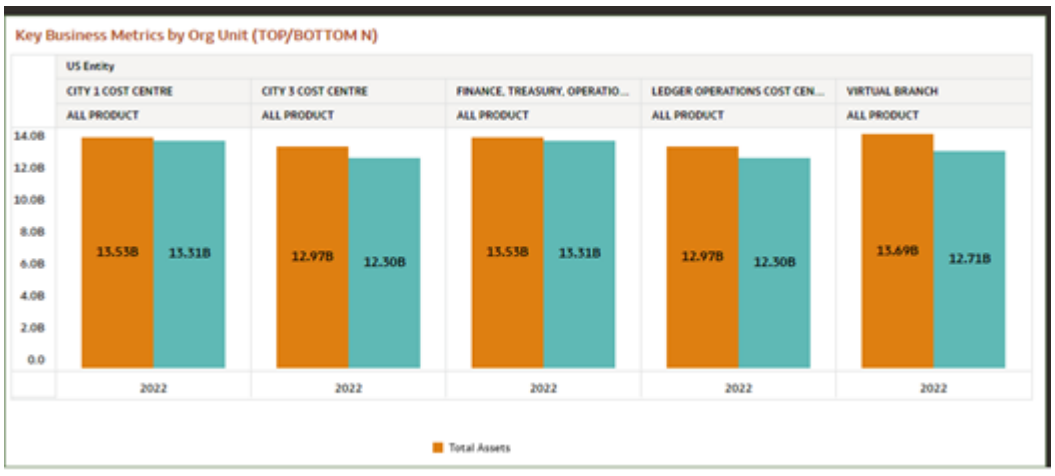
- **Org Unit by End of Period Balance (TOP N); the same is available for bottom view**
  The chart displays the Top N (N selected from the chart prompt) and bottom N organization units sorted in a descending order by End of Period Balances.

Figure 5-68 Org Unit by End of Period Balance (TOP N)



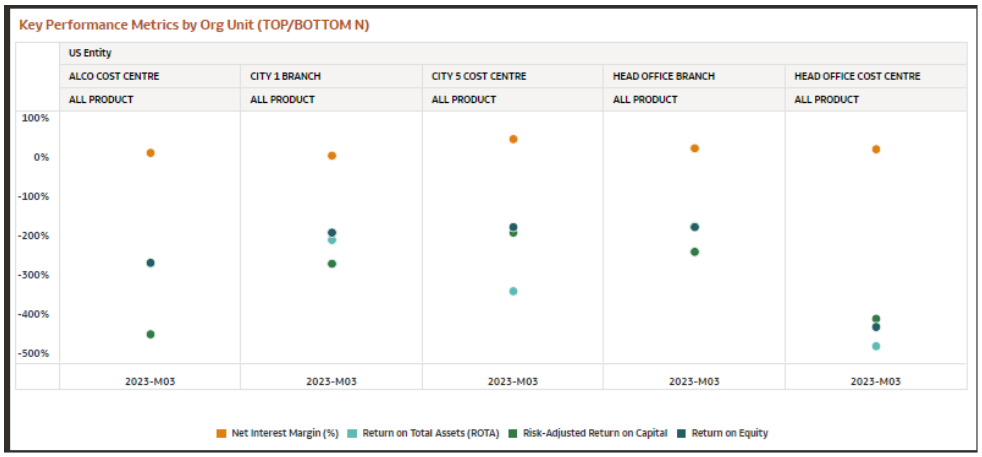
- **Key Business Metrics by Org Unit (TOP/ BOTTOM N)**: the same is available for bottom view The chart displays the Top N (N selected from the chart prompt) and bottom N organization units sorted in a descending order by End of Period Balances and provides the breakup between Asset and Liability Balances.

Figure 5-69 Key Business Metrics by Org Unit (TOP/BOTTOM N)



- **Key Performance Metrics by Org Unit (TOP/ BOTTOM N)**: the same is available for bottom view The chart displays the Top N (N selected from the chart prompt) and bottom N organization units sorted in a descending order by End of Period Balances and provides selected KPI's like NIM and ROTA of these Org Units.

Figure 5-70 Key Performance Metrics by Org Unit (TOP/ BOTTOM N)



5.5 Profitability Insights

To access the Processing Analytics report, select **Analytics** from the LHS Menu, and then select **Profitability Insights**.

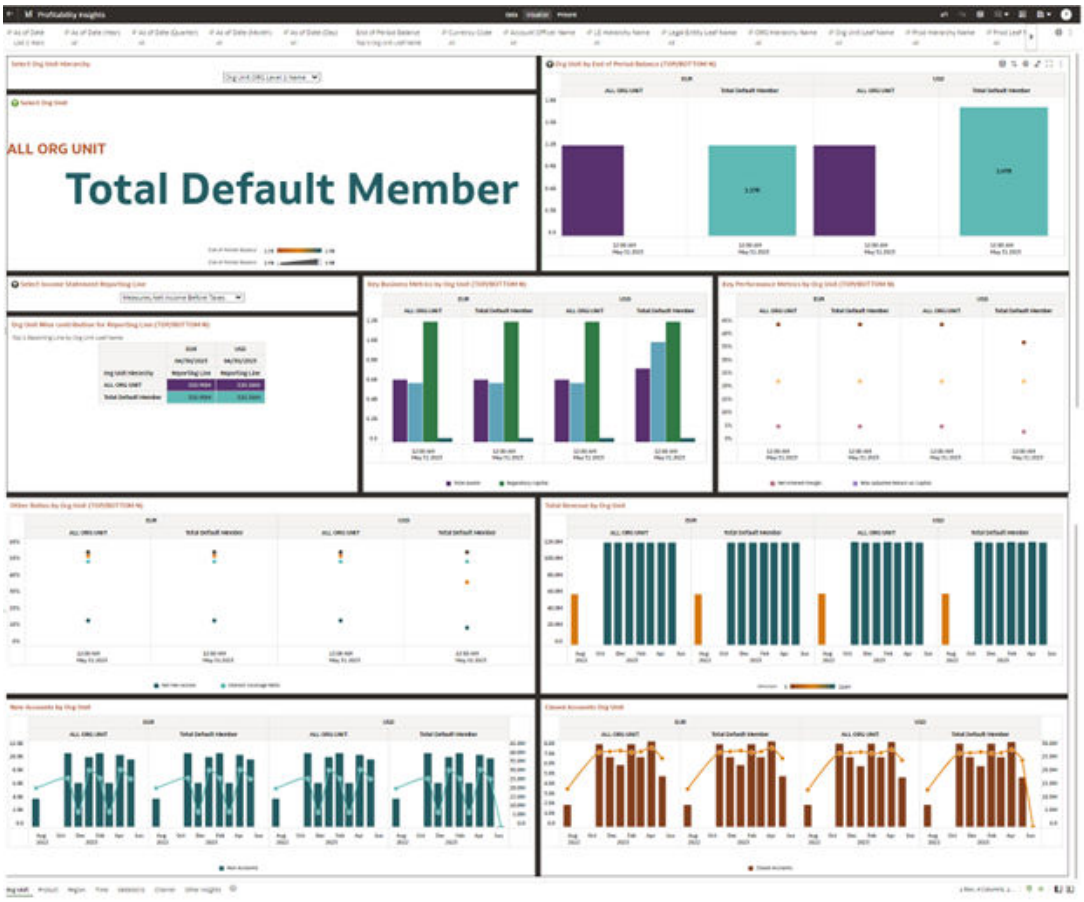
Profitability Insights provides strategic e a comprehensive view of financial performance around the Institutional and Retail customer of the bank across multiple dimensions, including Organization Unit, Product, Line of Business, Region, Channel, and Customer Performance, all aggregated up from the Instrument level.

5.5.1 Instrument Level Aggregation and Insights

The Profitability Insights report is arranged as a set of reports, classified into the following:

- Org Unit
- Product
- Region
- Time
- Detailed IS
- Channel
- Other Insights

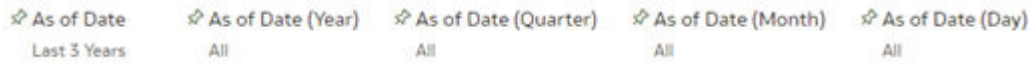
Figure 5-71 Profitability Insights



5.5.1.1 Report Common Filters

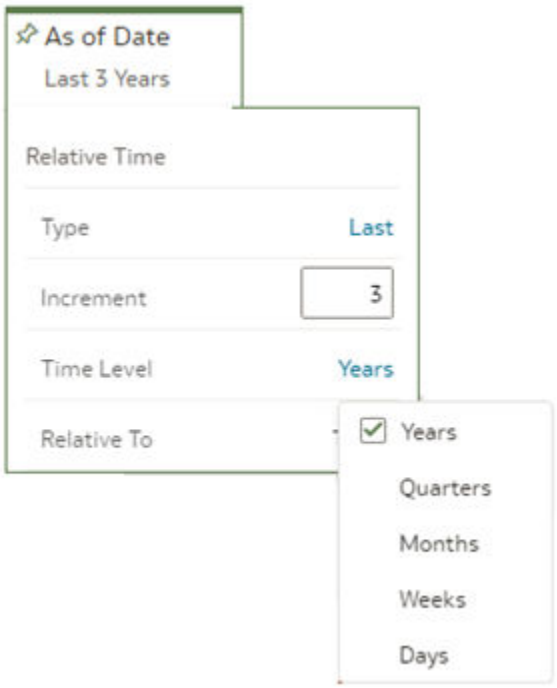
You can use a series of canvas level pinned Prompts to filter the data according to Functional Key Attributes as follows:

Figure 5-72 Canvas Prompt Filters for Time Dimension



- **As of Date:** You can use this filter to isolate a selected timeframe for the analysis. The following screenshot displays the possible options that this filter provides against the Time Dimension.

Figure 5-73 As of Date Selection



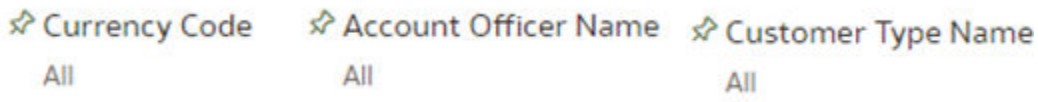
- Additional Filters for the Time Dimension as follows:
  - **As of Date**
  - **As of Date (Year)**
  - **As of Date (Quarter)**
  - **As of Date (Month)**
  - **As of Date (Day)**

Figure 5-74 Key Processing Dimensions Prompt Filters

- **Legal Entity Hierarchy Name:** This filter is for the group filtering on Legal Entity key processing dimension. As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, you must select the Leaf Name with only a single value simultaneously to see results at leaf level.
- **Legal Entity Leaf Name:** You can use this filter to select the Legal Entity Leaf Name corresponding to the hierarchy.
- **Org Unit Hierarchy Name:** This filter is for the group filtering on Organization Unit key processing dimension. As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, you must select the Leaf Name with only a single value simultaneously to see data at the leaf level.

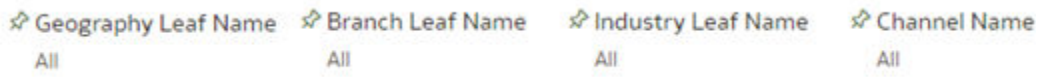
- **Org Unit Leaf Name:** You can use this filter to select the Org Unit Leaf Name corresponding to the hierarchy.
- **Product Hierarchy Name:** This filter is for the group filtering on Product key processing dimension. As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, you must select the Leaf Name with only a single value simultaneously to view results at leaf level.
- **Product Leaf Name:** You can use this filter to select the Product Leaf Name corresponding to the hierarchy.
- **Geography Hierarchy Name:** This filter is for the group filtering on Geography key processing dimension. As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, you must select the Leaf Name with only a single value simultaneously to view results at leaf level.
- **Geography Leaf Name:** You can use this filter to select the Geography Leaf Name corresponding to the hierarchy.

Figure 5-75 Simple Dimensions Prompt Filters



- **Currency Code:** You can use this filter to select a specific Currency Code to be applied to the underlying management ledger data.
- **Account Officer Name:** You can use this filter to select the Account Officer or Account Manager for the underlying instrument tables accounts.
- **Customer Type Name:** You can use this filter to select the Customer Type for the underlying instrument tables accounts.

Figure 5-76 Standard Dimensions Prompt Filters



- **Geography Leaf Name:** You can use this filter to select a specific Geography value at leaf level related to the underlying instrument tables accounts.
- **Branch Leaf Name:** You can use this filter to select a specific Branch value at leaf level related to the underlying instrument tables accounts.
- **Industry Leaf Name:** You can use this filter to select a specific Industry value at leaf level related to the underlying instrument tables accounts.
- **Channel Name**:

5.5.1.2 In canvas Variable Prompts

Figure 5-77 In-canvas Prompt Filters for Org Unit

Figure 5-78 In-canvas Prompt Filters for Product

Figure 5-79 In-canvas Prompt Filters for Region

Figure 5-80 In-canvas Prompt Filters for Other Insights

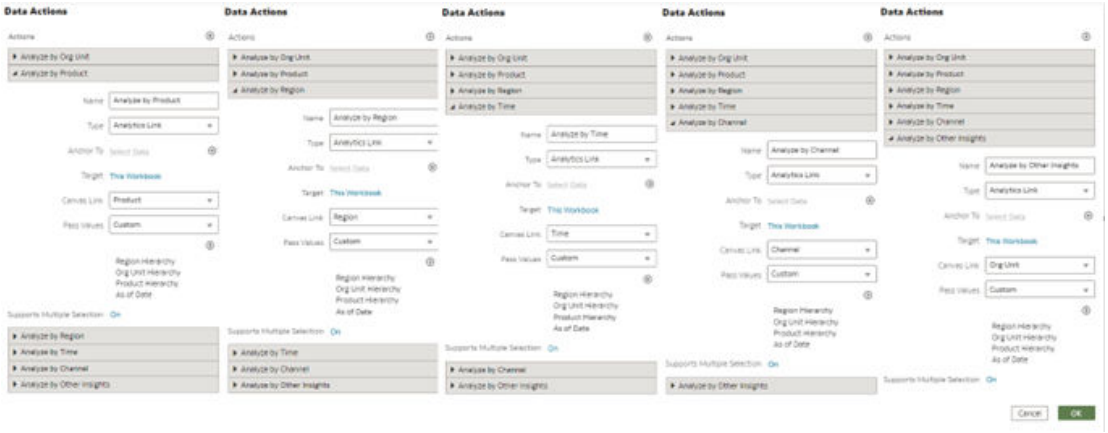
- **Select Org Unit Hierarchy:** You can use this filter to select the Org Unit Level Name pertaining to the Org Unit Hierarchy level, for rolling up the results on the underlying Org Unit Leaves that are part of the selected hierarchy.
- **Select Product Hierarchy:** You can use this filter to select the Product Level Name pertaining to the Product Hierarchy level, for rolling up the results on the underlying Product Leaves that are part of the selected hierarchy.
- **Select Region Hierarchy:** You can use this filter to select the Region Level Name pertaining to the Region Hierarchy level, for rolling up the results on the underlying Region Leaves that are part of the selected hierarchy.
- **Select Income Statement Reporting Line:** This is a mandatory filter for the group filtering on the Income Statement reporting line dimension. The following filter values are available for selection:
  - **Net Income Before Tax:** Net income before tax is the amount of profit made by the financial institution before income tax is paid. This figure is found by subtracting total expenses from total revenue.
  - **Net Interest Income:** Net Interest Income (NII) is the difference between the revenue generated from a bank's interest-bearing assets and expenses incurred while paying its interest-bearing liabilities. A bank's assets consist of personal and commercial loans, mortgages, securities etc. A bank's liabilities typically consist of customer deposits.
  - **Non Interest Income:** The non-interest income is the revenue generated by the banks and financial institutions, usually from the non-core activities (loan processing fee, late payment fees, credit card charges, service charges, penalties, and so on, net off waivers).

- **Operating Expenses:** Operating Expenses are expenses incurred by the bank or financial institution to carry out normal business operations.
- **Provision for Credit Losses:** The provision for credit losses is an estimation of potential losses that a bank might experience due to credit risk. The provision for credit losses is treated as a non-operating expense on the company's financial statements.

5.5.1.3 Report Data Action

The reports provide the capability to analyze data across canvases via a Data Action. The following are the Data Action Configuration details:

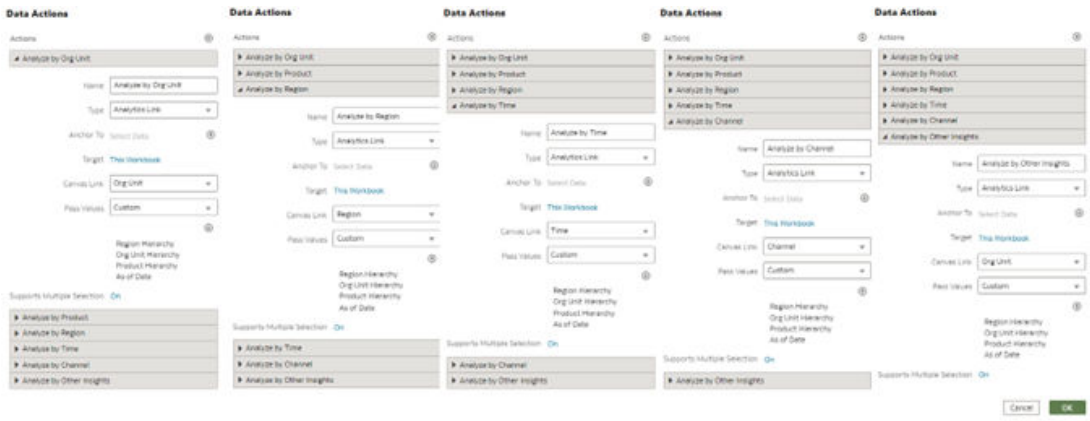
Figure 5-81 Data Action Configuration in Org Unit canvas



From every chart available in Org Unit you can select a value, and then navigate to the Product, Region and Other Insights canvas.

To do so, with a right click on the chart selection, the data action option (Analyze) will appear for you to be able to pass on the data filters to the canvas that you select.

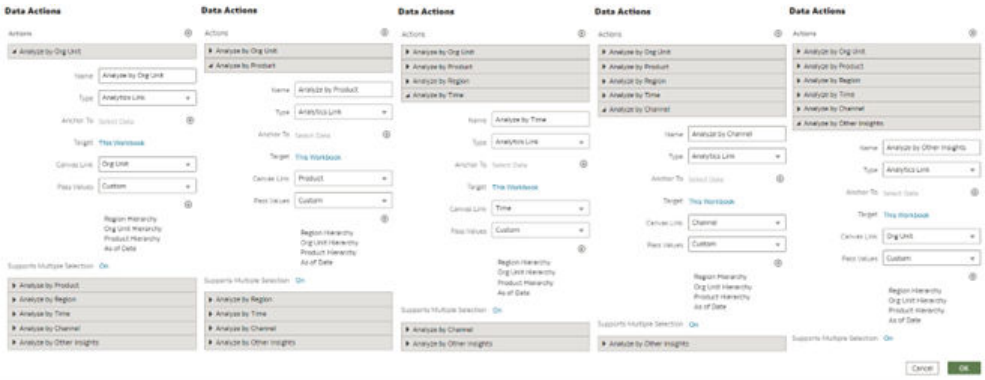
Figure 5-82 Data Action Configuration in Product canvas



From every chart available in Product you can select a value, and then navigate to the Org Unit, Region and Other Insights canvas.

To do so, with a right click on the chart selection, the data action option (Analyze) will appear for you to be able to pass on the data filters to the canvas that you select.

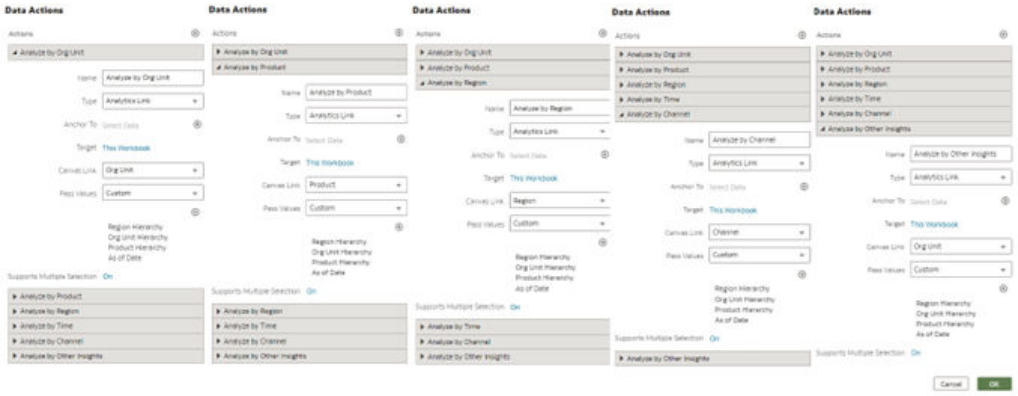
Figure 5-83 Data Action Configuration in Region canvas



From every chart available in Region, you can select a value, and then navigate to the Org Unit, Product and Other Insights canvas.

In order to do so, with a right click on the chart selection, the data action option (Analyze) will appear for you to be able to pass on the data filters to the canvas that you select.

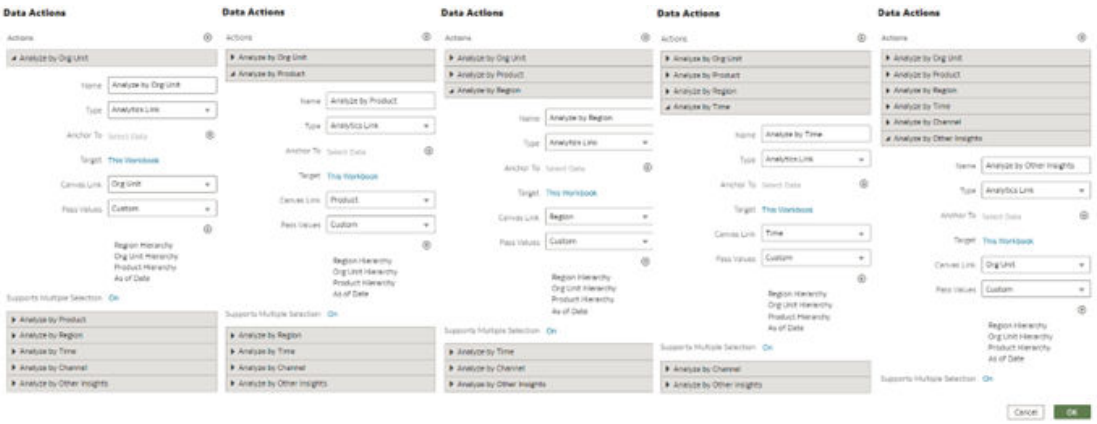
Figure 5-84 Data Action Configuration in Time canvas



From every chart available in Other Insights, you can select a value, and then navigate to the Org Unit, Product and Region canvas.

In order to do so, with a right click on the chart selection, the data action option (Analyze) will appear for you to be able to pass on the data filters to the canvas that you select.

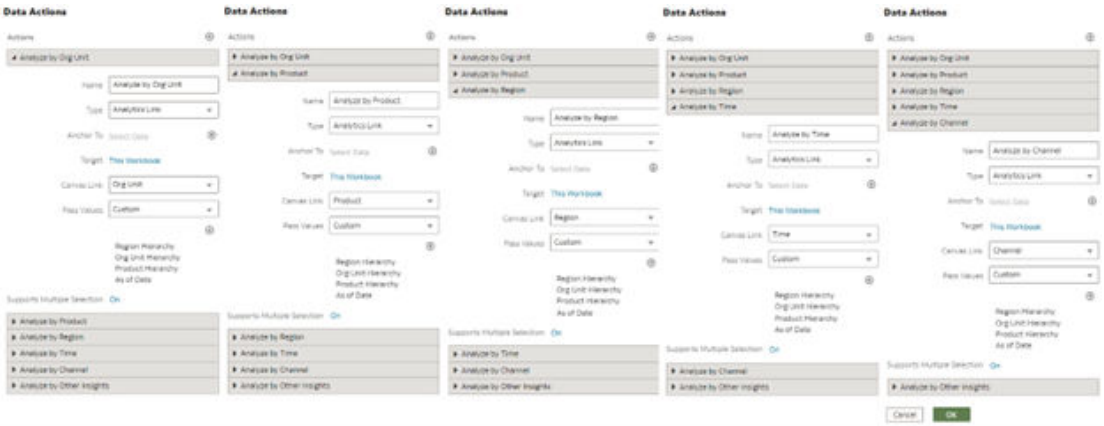
Figure 5-85 Data Action Configuration in Channel canvas



From every chart available in Region, you can select a value, and then navigate to the Org Unit, Product, Region, Time and Other Insights canvas.

In order to do so, with a right-click on the chart selection, the data action option (Analyze) will appear for you to be able to pass on the data filters to the canvas that you select.

Figure 5-86 Data Action Configuration in Other Insights canvas



From every chart available in Other Insights, you can select a value, and then navigate to the Org Unit, Product and Region canvas.

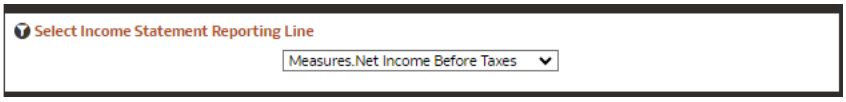
In order to do so, with a right click on the chart selection, the data action option (Analyze) will appear for you to be able to pass on the data filters to the canvas that you select.

5.5.1.4 Org Unit

Understanding Org Unit performance is of strategic importance to financial services institutions. The “Org Unit” report here is similar to the one we have in the Management Ledger Reporting section except for the fact that the reports are populated on the back off Instrument Summary data with additional reporting.

You can use a series of Report Prompts, as previously described, to filter the data. In addition, there are In-Report prompt selections to select the Top/ Bottom N org units that you are interested in, and the corresponding data will be displayed.

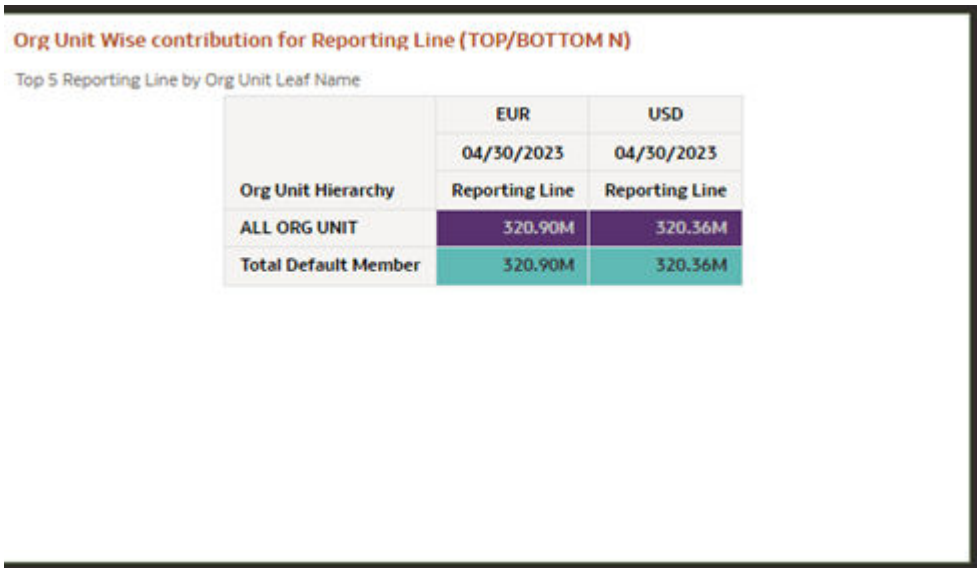
Figure 5-87 Select Income Statement Reporting Line



The report displays the underlying data according to the following Charts:

- **Org Unit Wise contribution for Reporting Line (TOP N); the same is available for bottom view**
  In this chart, for the selected reporting line, the Top N (N selected from the chart prompt) and bottom N organization units are displayed in descending order of value of the reporting line.

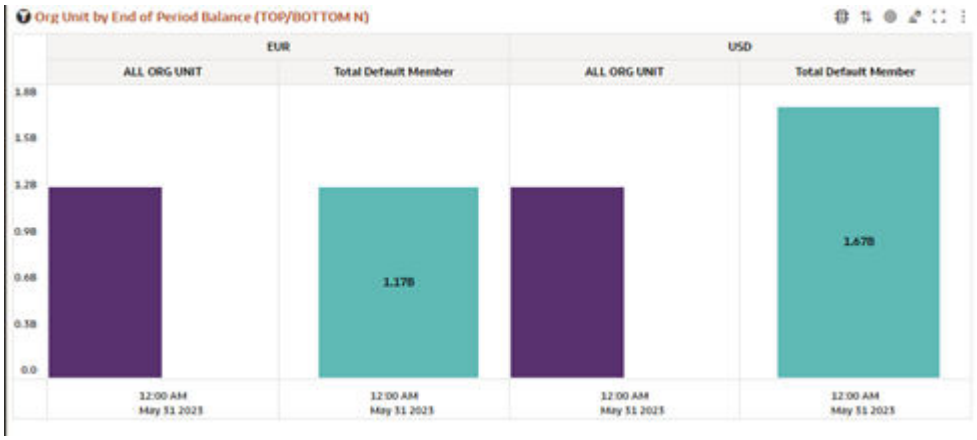
Figure 5-88 Org Unit Wise contribution for Reporting Line (TOP N)



	EUR	USD
	04/30/2023	04/30/2023
Org Unit Hierarchy	Reporting Line	Reporting Line
ALL ORG UNIT	320.90M	320.36M
Total Default Member	320.90M	320.36M

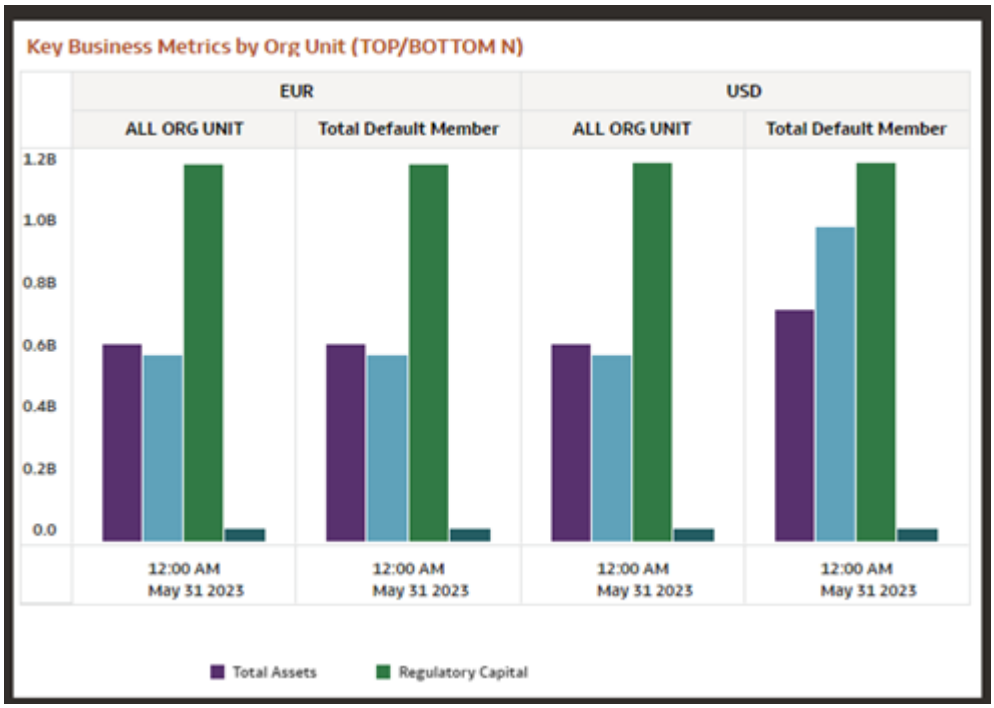
- **Org Unit by End of Period Balance (TOP N); the same is available for bottom view:**
  The chart displays the Top N (N selected from the chart prompt) and bottom N organization units sorted in a descending order by End of Period Balances.

Figure 5-89 Org Unit by End of Period Balance (TOP N)



- **Key Business Metrics by Org Unit (TOP N); the same is available for bottom view:** The chart displays the Top N (N selected from the chart prompt) and bottom N organization units sorted in a descending order by End of Period Balances and provides the breakup between Asset and Liability Balances along with Regulatory and Economic Capital.

Figure 5-90 Key Business Metrics by Org Unit (TOP/ BOTTOM N)

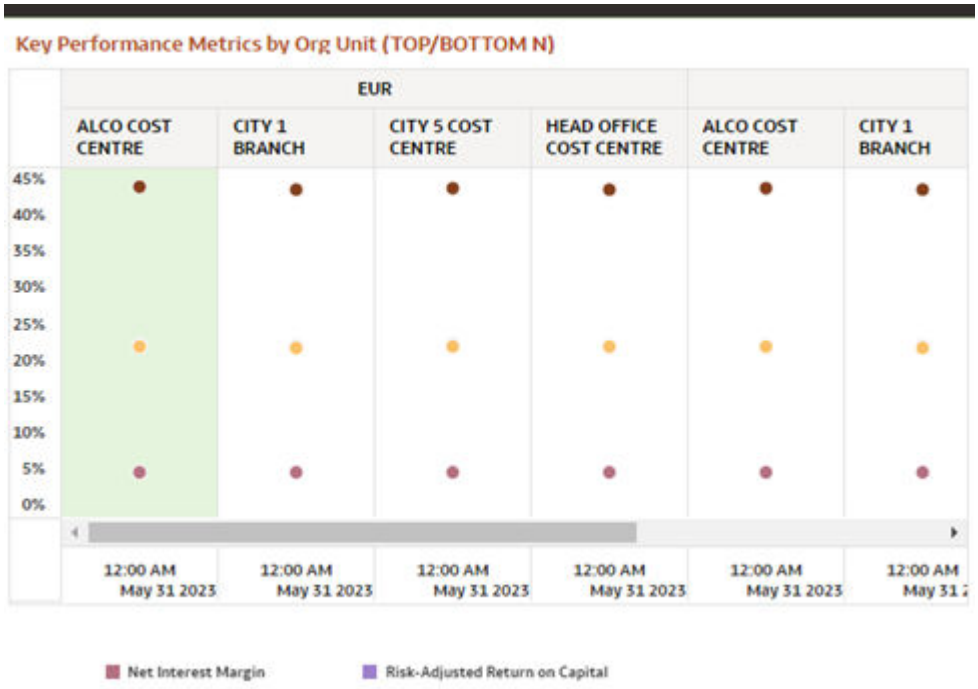


  - **Total Assets and Total Liabilities:** Total Asset and Total Liability Balances.
  - **Regulatory Capital:** Regulatory Capital is by definition similar to that of Economic capital except for the fact that unlike economic capital, regulatory capital is calculated as per regulations laid down by banking regulators in a country.

- **Economic Capital:** Economic Capital is the amount of risk capital, which a firm requires to cover the risks that it is running on books and collecting as a risk taking enterprise. These risks are typically market risk, credit risk, legal risk, and operational risk. It is the amount of capital that is needed by the bank to stay solvent.

- **Key Performance Metrics by Org Unit (TOP N); the same is available for bottom view:** The chart displays the Top N (N selected from the chart prompt) and bottom N organization units sorted in a descending order by End of Period Balances and provides selected KPI's like NIM, RAROC, ROE and ROTA of these Org Units.

Figure 5-91 Key Performance Metrics by Org Unit (TOP/ BOTTOM N)



- **Net Interest Margin:** NIM is usually Net Interest Income expressed as a percentage that is, it is the net interest income a bank or financial institution earns in percentage terms on the average interest-earning assets in a specified period.
- **Return on Total Assets:** Return on Total Assets (ROTA) is a ratio that measures a company's earnings before taxes (NIBT) relative to its total Assets. It is expressed as a percentage.
- **Risk Adjusted Return on Capital:** Risk Adjusted Return on Capital is a ration that measures the financial health of the financial institution. Here NIBT is divided by Unexpected Losses and expressed as a percentage.
- **Return on Equity:** Return on equity (ROE) is the measure of a bank's net income divided by its shareholders' equity. ROE is a gauge of a corporation's profitability and how efficiently it generates those profits. The higher the ROE, the better a company is at converting its equity financing into profits.

- **Other Ratios by Org Unit (TOP N); the same is available for bottom view:** The chart displays the Top N (N selected from the chart prompt) and bottom N organization units sorted in a descending order by End of Period Balances and provides selected business metrics like Net Fee Income, Gross Interest Income, Interest Coverage Ratio and Debt coverage ratio, all expressed as percentages.

Figure 5-92 Other Ratios by Org Unit (TOP/ BOTTOM N)

  - **Net Fee Income:** Net Fee Income is the revenue generated by the bank from fees and commissions less the waivers expressed as a percentage of Total End of Period Balances.
  - **Gross Interest Income:** Gross Interest Income is the total interest paid by the borrower to the bank relative to its total outstanding balances. It does not account for any interest expenses incurred by the bank or any kind of fees or charges. It is expressed as a percentage.
  - **Interest Coverage Ratio:** The Interest Coverage Ratio measures a bank's ability to meet required interest expense payments related to its outstanding obligations. It is expressed as a ratio of NIBT with Total Interest Expenses expressed as a percentage.
  - **Operating Expense Ratio:** Operating Expense ratio compares operating expenses to Total Revenue. It is a common metric financial institutions use to determine how efficient their management is at keeping operating costs low while also earning revenue.

5.5.1.5 Product

This report provides monthly trended results using that you can monitor product line performance, track earnings trend and other key factors at the product levels.

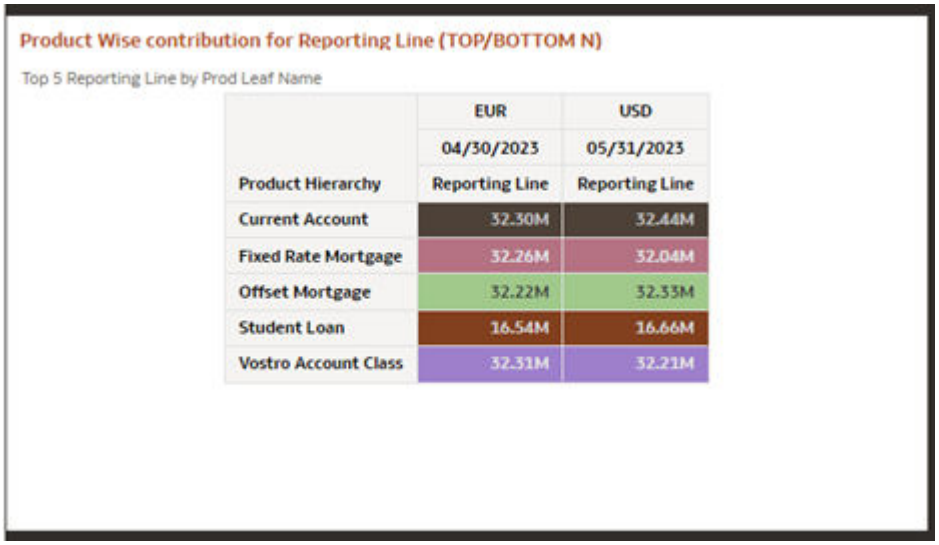
You can use a series of Report Prompts, as previously described, to filter the data. In addition, there are In-Report prompt selections to select the Top/ Bottom N products that you are interested in, and the corresponding data will be displayed.

The report displays the underlying data according to the following Charts:

- **Product wise contribution for Reporting Line (TOP N); the same is available for bottom view:** In this chart, for the selected reporting line, the Top N (N selected from the

chart prompt) and bottom N products are displayed in descending order of value of the reporting line.

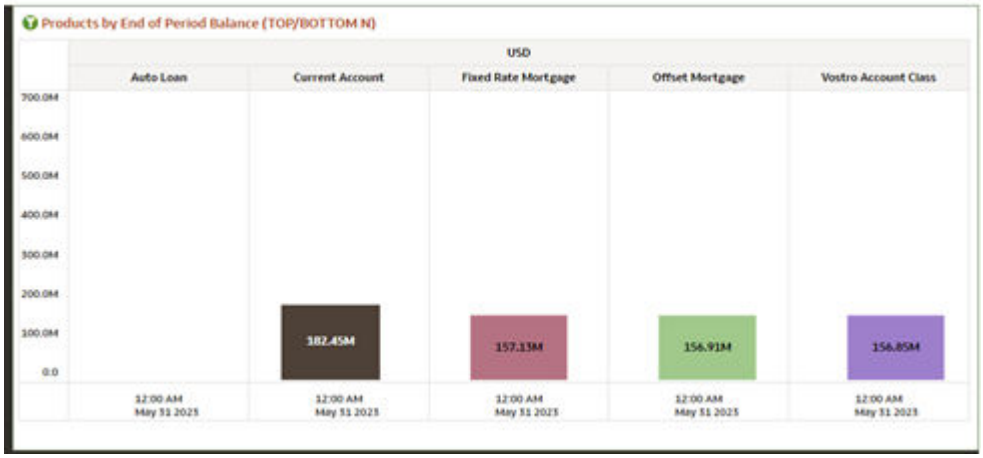
Figure 5-93 Product wise contribution for Reporting Line (TOP/ BOTTOM N)



Product Hierarchy	EUR 04/30/2023 Reporting Line	USD 05/31/2023 Reporting Line
Current Account	32.30M	32.44M
Fixed Rate Mortgage	32.26M	32.04M
Offset Mortgage	32.22M	32.33M
Student Loan	16.54M	16.66M
Vostro Account Class	32.31M	32.21M

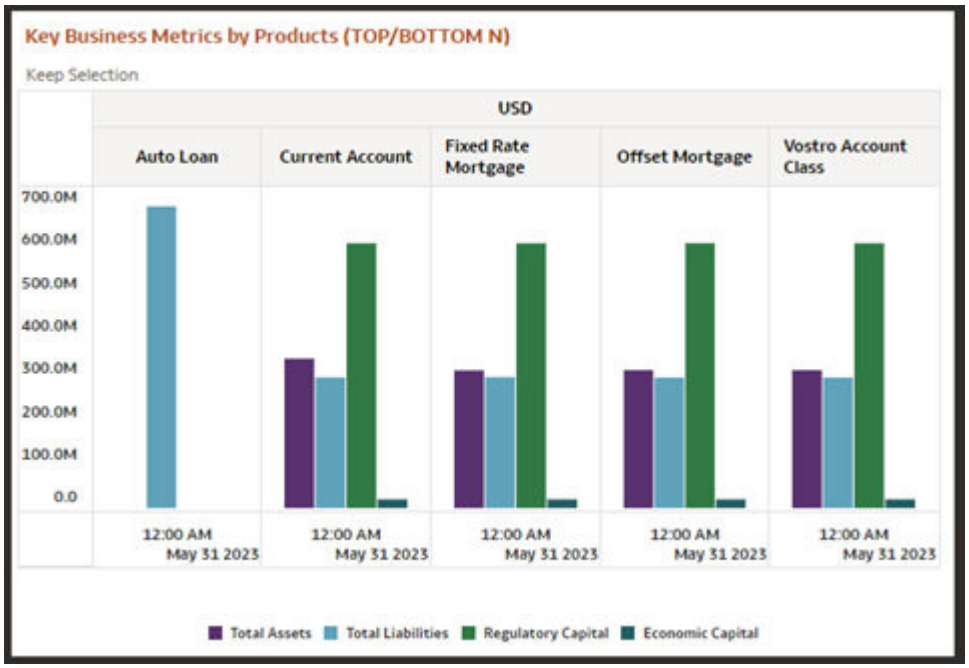
- **Product by End of Period Balance (TOP N); the same is available for bottom view:** The chart displays the Top N (N selected from the chart prompt) and bottom N products sorted in a descending order by End of Period Balances.

Figure 5-94 Product by End of Period Balance (TOP/ BOTTOM N)



- **Key Business Metrics by Products (TOP N); the same is available for bottom view:** The chart displays the Top N (N selected from the chart prompt) and bottom N organization units sorted in a descending order by End of Period Balances and provides the breakup between Asset and Liability Balances along with Regulatory and Economic Capital.

Figure 5-95 Key Business Metrics by Products (TOP/ BOTTOM N)



- **Key Performance Metrics by Products (TOP N); the same is available for bottom view:** The chart displays the Top N (N selected from the chart prompt) and bottom N products sorted in a descending order by End of Period Balances and provides selected KPI's like NIM, RAROC, ROE and ROTA of these Products.

Figure 5-96 Key Performance Metrics by Products (TOP/ BOTTOM N)

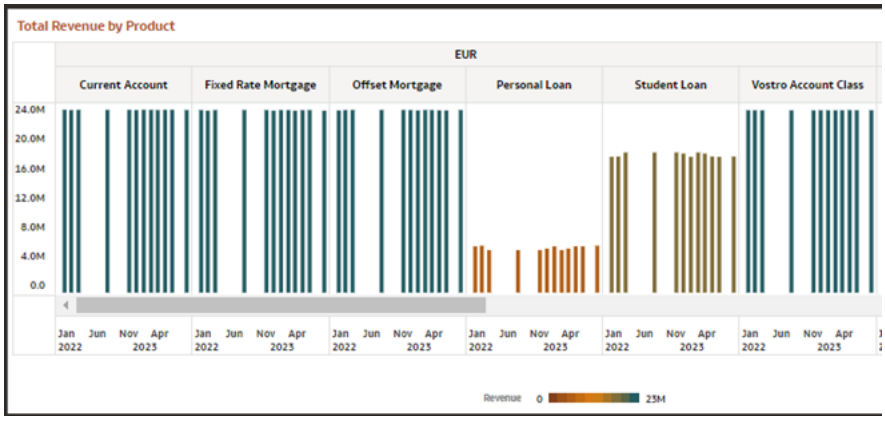
- **Other Ratios by Products (TOP N); the same is available for bottom view:** The chart displays the Top N (N selected from the chart prompt) and bottom N products sorted in a descending order by End of Period Balances and provides selected business metrics like

Net Fee Income, Gross Interest Income, Interest Coverage Ratio and Debt coverage ratio, all expressed as percentages.

Figure 5-97 Other Ratios by Products (TOP/ BOTTOM N)

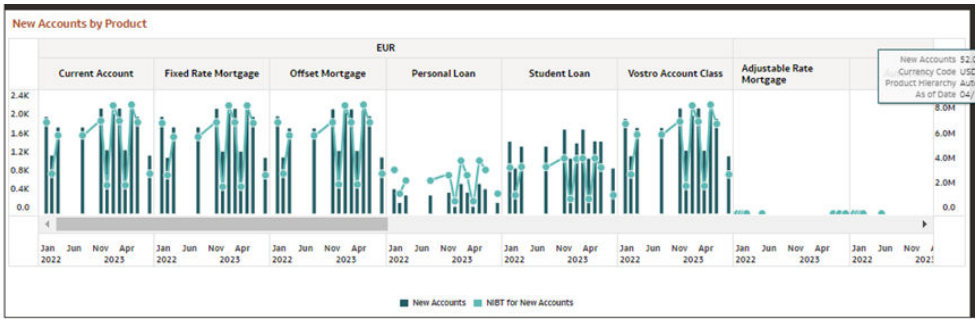
- **Total Revenue by product**: This chart displays the revenues generated by the products.

Figure 5-98 Total Revenue by product



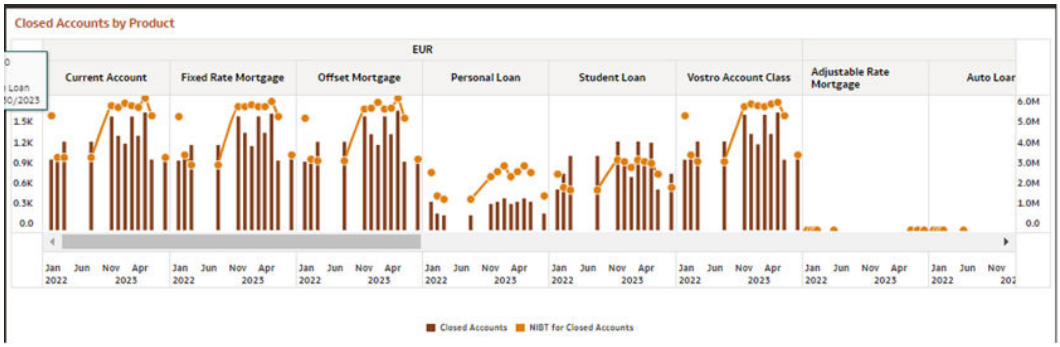
- **New Accounts by product**: This chart displays a time series view of the new accounts opened with the products displayed in trellis columns and the income generated from new accounts as lines.

Figure 5-99 New Accounts by product



- **Closed Accounts by product**: This chart displays a time series view of the closed accounts opened with the products displayed in trellis columns and the income generated from the closed accounts as lines.

Figure 5-100 Closed Accounts by product

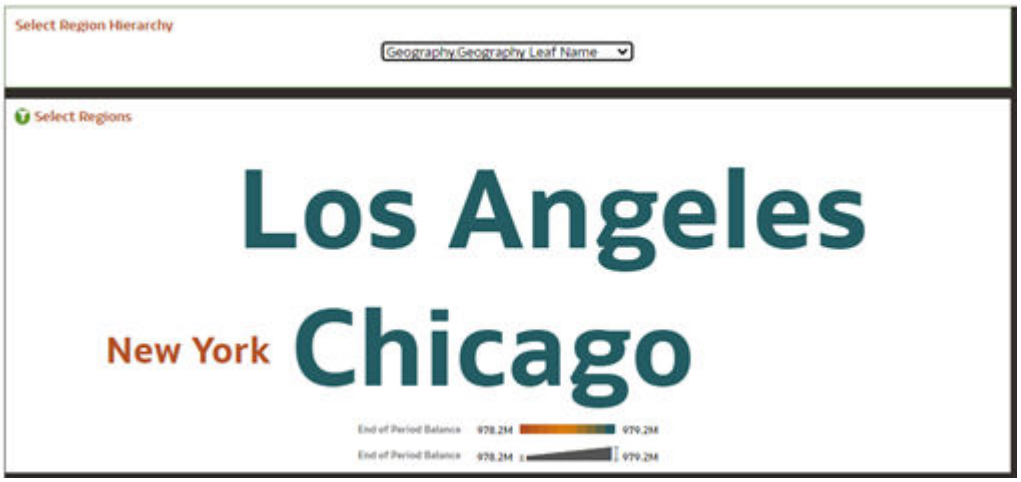


5.5.1.6 Region

This report enables tracking of Balances, reporting lines, business and performance metrics including comparison with selected regions and regional hierarchy at different levels.

You can use the following report filters to further slice and dice the available report charts:

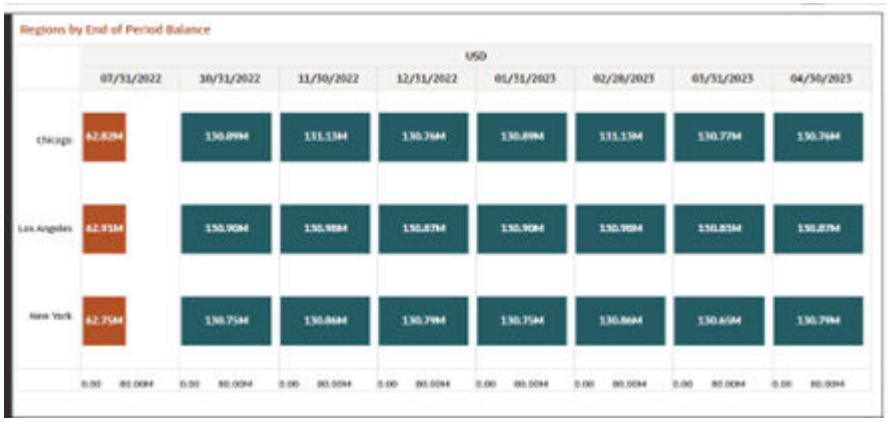
Figure 5-101 Canvas Prompt Filters



In addition, you can use a series of Report Prompts, as previously described, to filter the data. The report displays the underlying data according to the following Charts:

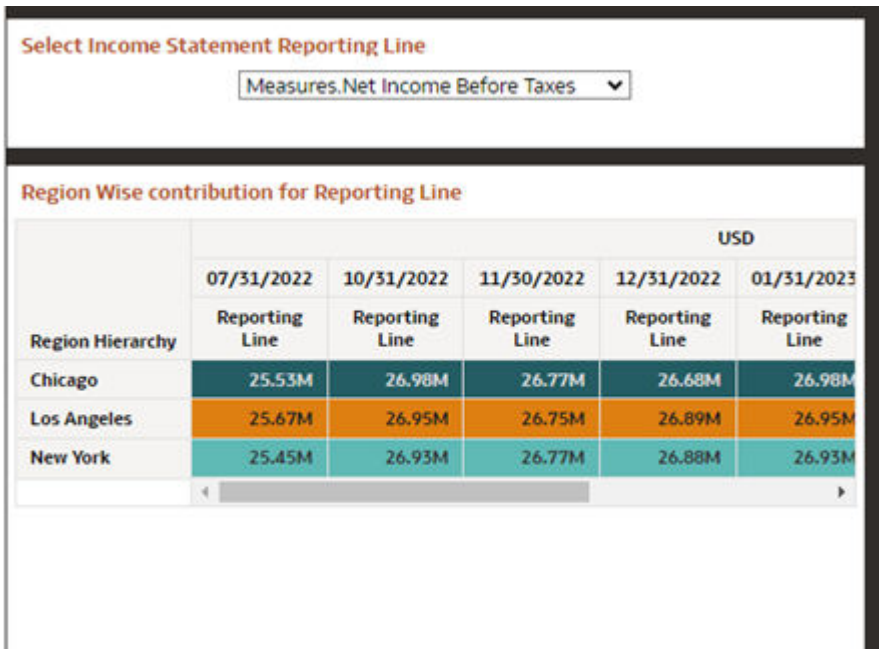
- **Regions by End of Period Balance:** The chart displays the End of Period Balances for the region hierarchy or leaf level as selected by the user.

Figure 5-102 Regions by End of Period Balance



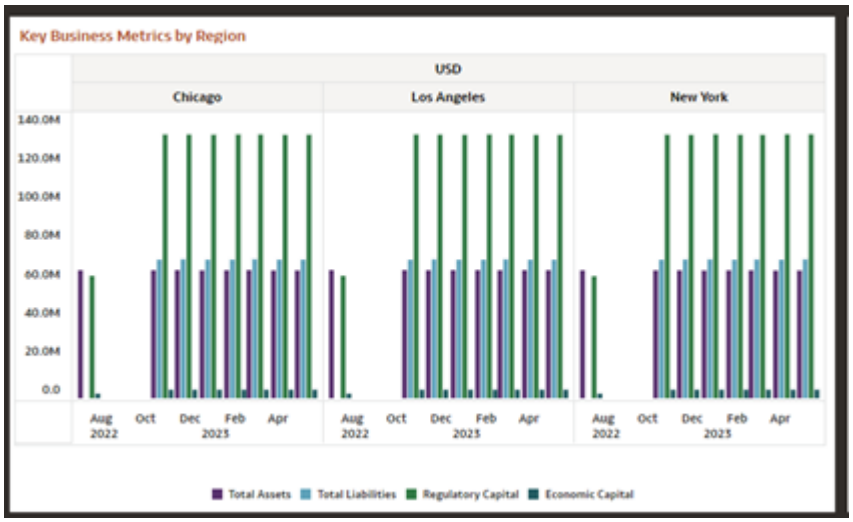
- **Region Wise Contribution for Reporting Line:** The chart displays the value of the reporting line for the selected combination of reporting line, leveraging the Select Income Statement Reporting Line variable prompt, and region hierarchy, as described earlier in how to leverage Select Region hierarchy.

Figure 5-103 Region Wise Contribution for Reporting Line



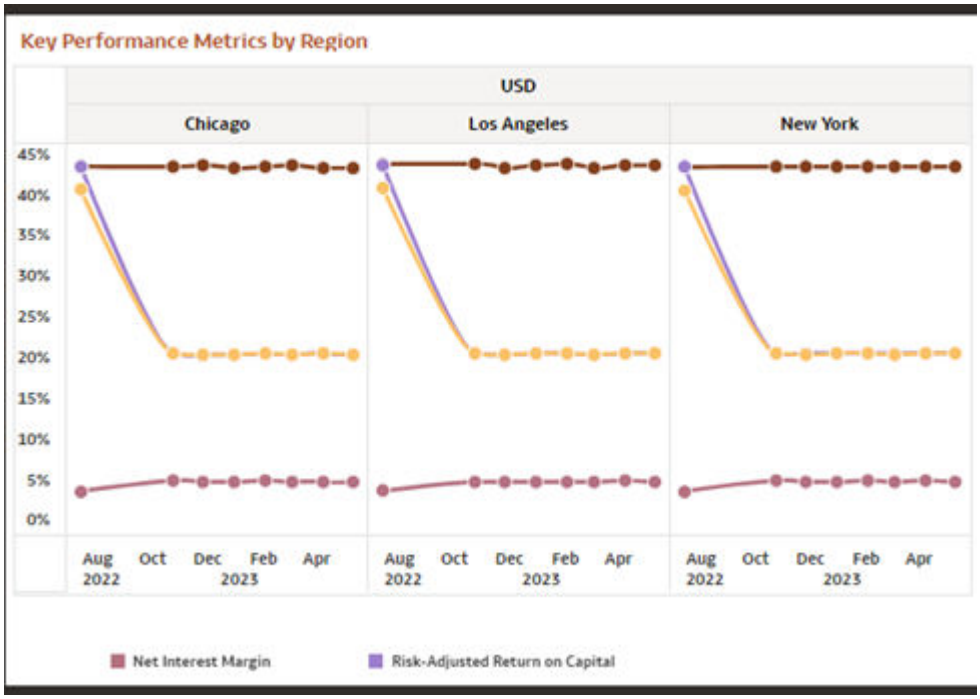
- **Key Business Metrics by Region:**The chart displays the key Business Metrics – Total Assets, Total Liabilities, Economic Capital, and Regulatory Capital for the selected Region hierarchy.

Figure 5-104 Key Business Metrics by Region



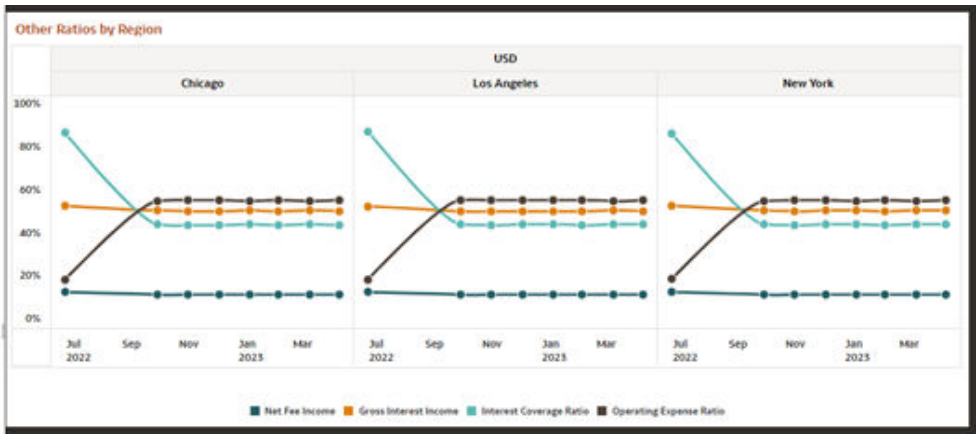
- **Key Performance Metrics by Region:** The chart displays the key Business Metrics – Net Interest Margin, Return on Total Assets, Risk Adjusted Return on Capital, and Return on Equity for the selected Region hierarchy.

Figure 5-105 Key Performance Metrics by Region



- **Other Ratios by Region:** The chart displays business metrics like Net Fee Income, Gross Interest Income, Interest Coverage Ratio and Debt coverage ratio, all expressed as percentages for the selected region hierarchy.

Figure 5-106 Other Ratios by Region



- **Total Revenue by Region**: The chart displays Total Revenue for the selected region hierarchy.

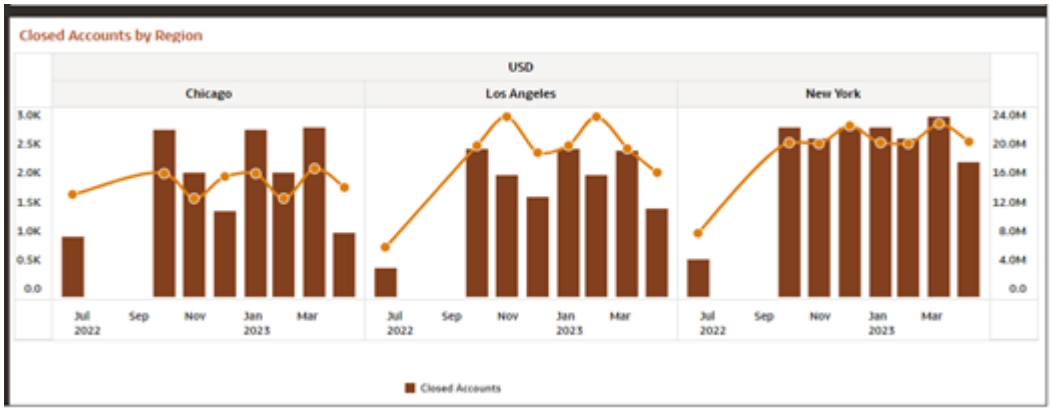
Figure 5-107 Total Revenue by Region

- **New Accounts and Closed Accounts by Region**: The chart displays business metrics NIBT, number of New Accounts and Closed Accounts over time.

Figure 5-108 New Accounts by Region

- **Closed Accounts byRegion**

Figure 5-109 Closed Accounts byRegion



5.5.1.7 Time

This report provides a view-by-line Time tracking of reporting lines, business, and performance metrics including comparison with time dimension levels.

You can use the following report filters to further slice and dice the available report charts:

Figure 5-110 Canvas Prompt Filters – Time Dimension

Figure 5-111 Variable Prompt Filters

- Select Income Statement Reporting Line: This is a mandatory filter for the group filtering on the Income Statement reporting line dimension. The following filter values are available for selection:
  - **Net Income Before Tax**: Net income before tax is the amount of profit made by the financial institution before income tax is paid. This figure is found by subtracting total expenses from total revenue.
  - **Net Interest Income**: Reflects the difference between the revenue generated from a bank's interest-bearing assets and the expenses associated with paying its interest-bearing liabilities.
  - **Non Interest Income**: Income derived primarily from fees including deposit and transaction fees, insufficient funds (NSF) fees, annual fees, monthly account service charges, inactivity fees, check and deposit slip fees, and so on.
  - **Operating Expenses**: Expenses that a business incurs through its normal business operations.

- **Provisions for Credit Loss**: Estimation of potential losses that a company might experience due to credit risk. The provision for credit losses is treated as an expense on the company's financial statements.

The view is segmented into three different perspectives. Actual, Budget Estimates, Operating Plan to enable comparison in these by dimensions Currency Code, Region, Organization Unit, and Product Hierarchy.

Figure 5-112 Selected Reporting Line

Figure 5-113 Key Business Metrics

Figure 5-114 Key Performance Metrics

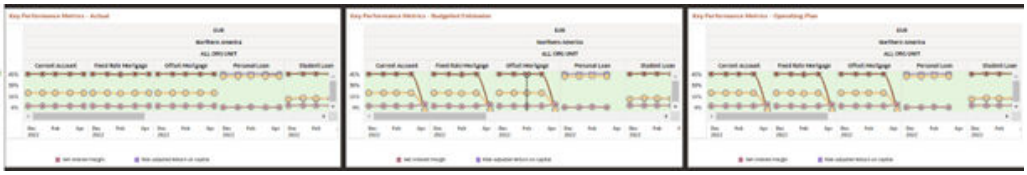
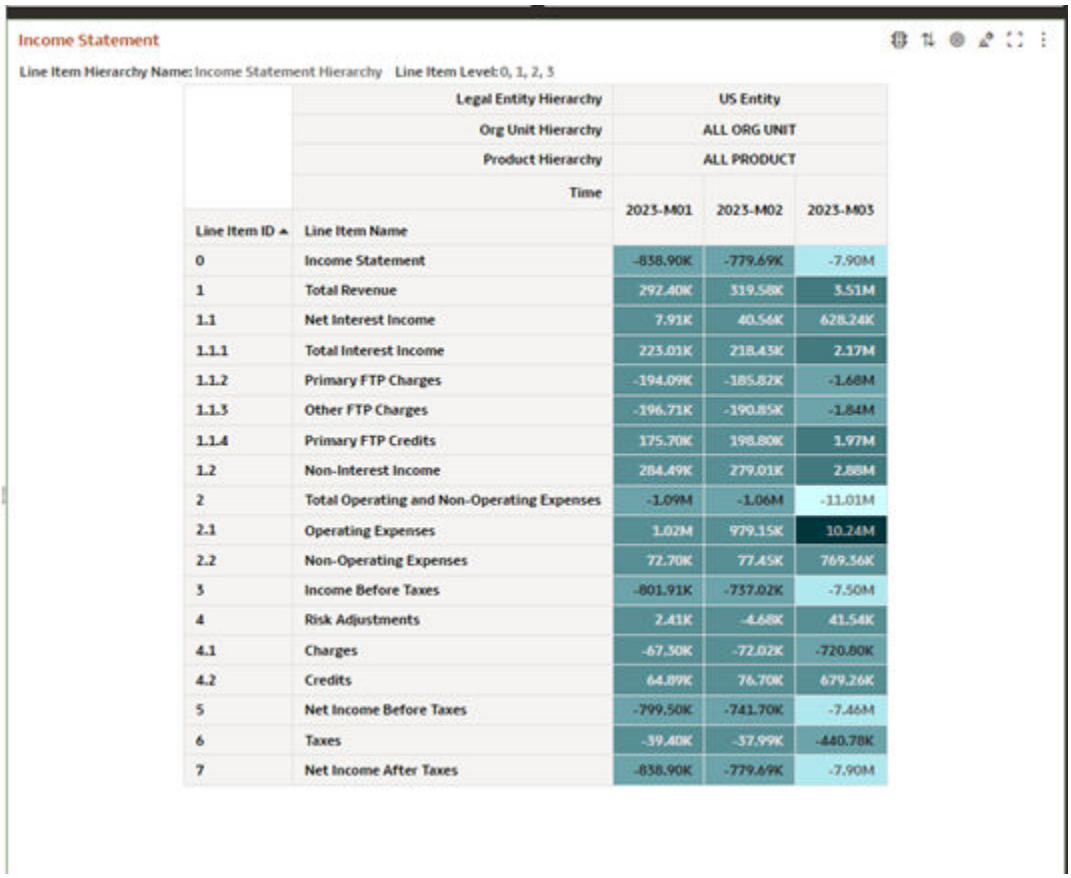


Figure 5-115 Other Ratios -Actual

5.5.1.8 Detailed Income Statement

The Detailed IS Report as it implies details the granular level reporting lines of the P&L of a bank. Time-series reporting of the income statement, with respect to the last five time periods selected and are provided at the granularity of As of Date.

Figure 5-116 Detailed IS Report Default



Income Statement

Line Item Hierarchy Name: Income Statement Hierarchy Line Item Level: 0, 1, 2, 3

	Legal Entity Hierarchy	US Entity		
	Org Unit Hierarchy	ALL ORG UNIT		
	Product Hierarchy	ALL PRODUCT		
	Time	2023-M01	2023-M02	2023-M03
Line Item ID ▲	Line Item Name			
0	Income Statement	-838.90K	-779.69K	-7.90M
1	Total Revenue	292.40K	319.58K	3.51M
1.1	Net Interest Income	7.91K	40.56K	628.24K
1.1.1	Total Interest Income	223.01K	218.45K	2.17M
1.1.2	Primary FTP Charges	-194.09K	-185.82K	-1.68M
1.1.3	Other FTP Charges	-196.71K	-190.85K	-1.84M
1.1.4	Primary FTP Credits	175.70K	198.80K	1.97M
1.2	Non-Interest Income	284.49K	279.01K	2.88M
2	Total Operating and Non-Operating Expenses	-1.09M	-1.06M	-11.01M
2.1	Operating Expenses	1.02M	979.15K	10.24M
2.2	Non-Operating Expenses	72.70K	77.45K	769.56K
3	Income Before Taxes	-801.91K	-737.02K	-7.50M
4	Risk Adjustments	2.41K	-4.68K	41.54K
4.1	Charges	-67.30K	-72.02K	-720.80K
4.2	Credits	64.89K	76.70K	679.26K
5	Net Income Before Taxes	-799.50K	-741.70K	-7.46M
6	Taxes	-39.40K	-37.99K	-440.78K
7	Net Income After Taxes	-838.90K	-779.69K	-7.90M

Income Statement Line Items Variance and Line Item Variance %:The Income Statement line item variance and variance % reports work in the same way as in the case of the Detailed Income Statement canvas in Management Reporting.

5.5.1.9 Channel Canvas

This report enables tracking by Organization Channel performance metrics including comparison with selected regions, organizations, and product hierarchies at different levels.

You can use the following report filters to further slice and dice the available report charts:

- **New business by Origination Channel** report shows the new balances that have been added to the books across the various origination channels during the selected time period.

Figure 5-117 New Business by Origination Channel Report

- **New accounts by Origination Channel** report shows the new accounts that have been added to the books across the various origination channels during the selected time period.

Figure 5-118 New Accounts by Origination Channel Report

- **Closed accounts by Origination Channel** report shows the accounts that have been closed with a view of the origination channels of those accounts during the selected time period.

Figure 5-119 Closed Accounts by Origination Channel

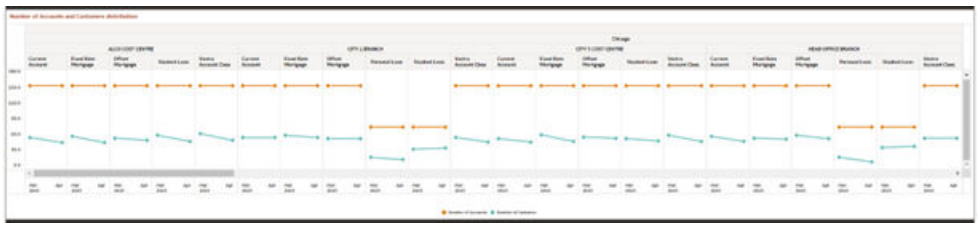
5.5.1.10 Other Insights

The Other Insights report provides granular information on account and customer distribution. This data help banks manage their investments efficiently and invest in areas that are of strategic and financial importance to the bank. You can use a series of Report Prompts, as previously described, to filter the data.

The report displays the underlying data according to the following Charts:

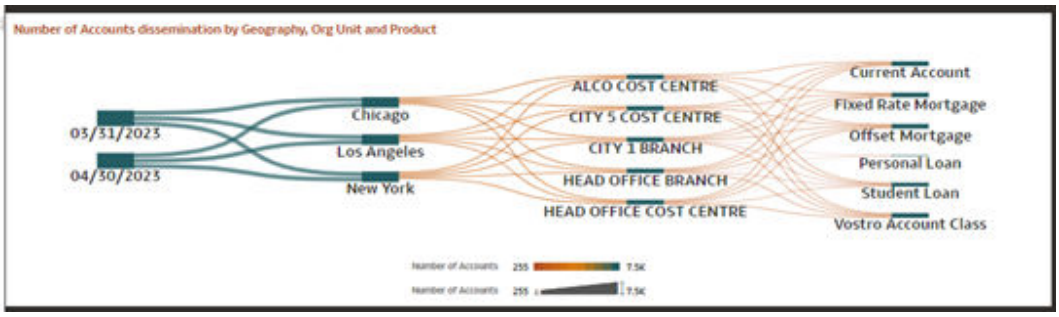
- **Number of Accounts and Customers Distribution**: The chart displays business metrics like Number of Accounts and Number of Customers for the selected Region, Org Unit and Product hierarchy.

Figure 5-120 Number of Accounts and Customers Distribution



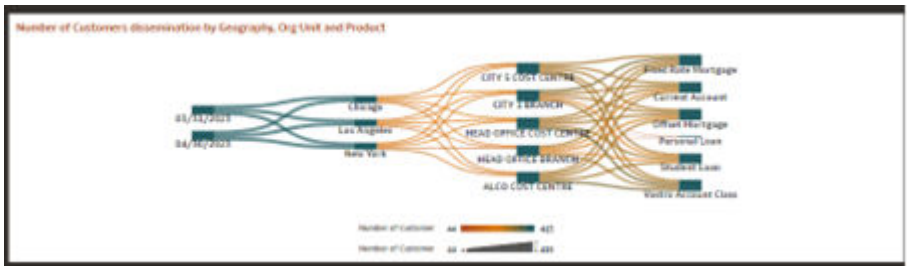
- **Number of Accounts dissemination by Geography, Org Unit, and Product**: As the name implies, this chart provides a breakup of the number of accounts by Region, Org Unit and Product.

Figure 5-121 Number of Accounts dissemination by Geography, Org Unit and Product



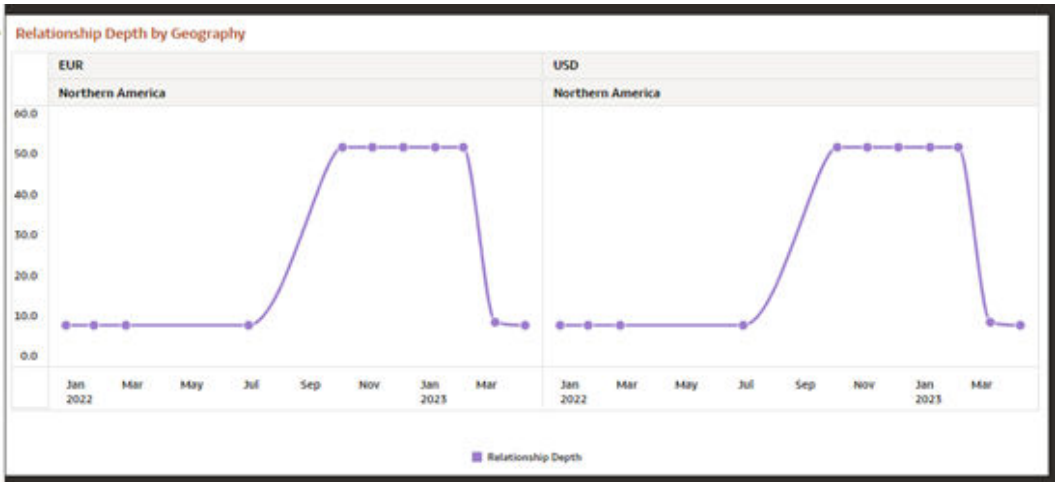
- **Number of Customers dissemination by Geography, Org Unit, and Product**: As the name implies, this chart provides a breakup of the number of customers by Region, Org Unit and Product.

Figure 5-122 Number of Customers dissemination by Geography, Org Unit and Product



- **Relationship Depth by Geography**: Relationship depth indicates the number of accounts per customer. In this report, this is reported as per Geography.

Figure 5-123 Relationship Depth by Geography

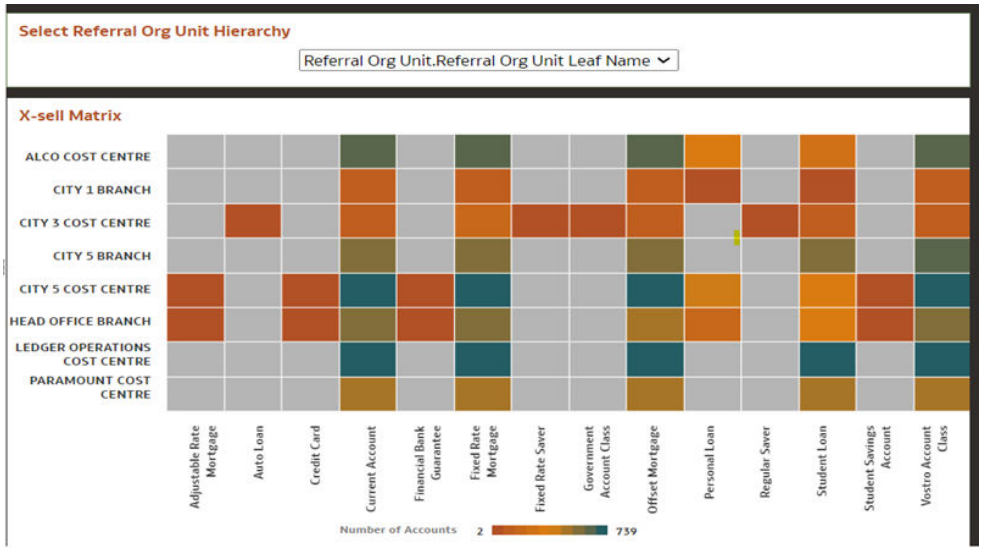


- **Number of Accounts by Credit Rating Report**: This report shows the credit rating distribution for the accounts in the portfolio, thus giving an indication of the health of the portfolio in terms of risk.

Figure 5-124 Number of Accounts by Credit Rating Report

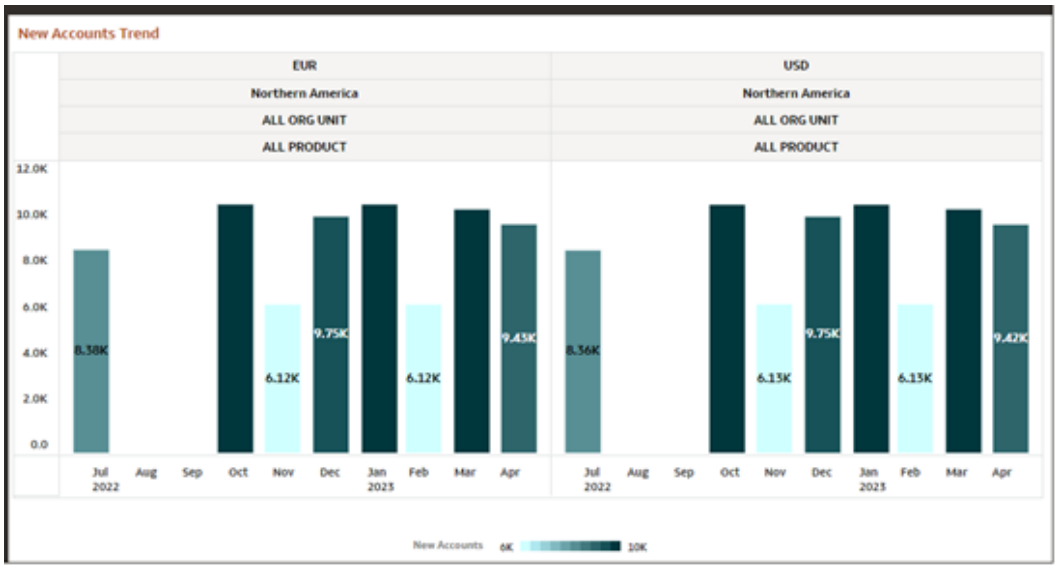
- **X-sell Matrix (Number of Accounts) Report**: This report shows a product wise distribution of the number of accounts that have been X-sold from a specific org unit that is selected from the dropdown, Selecting the leaf level option will display the X-sell Matrix.

Figure 5-125 X-sell Matrix (Number of Accounts) Report



- **New Accounts Trend Report**: This report shows a product wise view of the new account openings during the selected time period. This can also ve viewed as per the org unit or region.

Figure 5-126 New Accounts Trend Report



5.6 Customer Profitability

To access the Processing Analytics report, from the LHS Menu, select **Analytics**, and then select **Customer Profitability**.

Customer Profitability provides you with the roll-up and drill-down capability on the Instrument level the available levels into for product, region, or channel. This comprehensive view explores various insights around customer details and customer comparison with segments into customer relationships.

5.6.1 Instrument Level Aggregation and Insights

The Customer Profitability report is arranged as a set of reports, classified into the following:

- Customer Details
- Customer vs Segments
- Segment Comparator
- Segment Analysis
- Segment Income Statement
- Relationship Manager Profitability

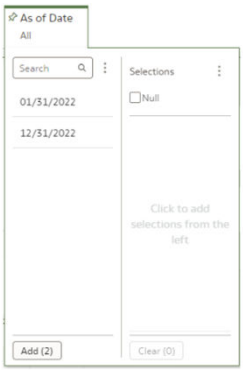
5.6.1.1 Report Common Filters

You can use a series of canvas level pinned Prompts to filter the data according to Functional Key Attributes as follows:

Figure 5-127 Canvas Prompt Filters for Time Dimension

As of Date: You can use this filter to isolate a selected timeframe for the analysis. The following screenshot displays this filter's possible options against the Time Dimension.

Figure 5-128 As of Date Selection



Additional Filters for the Time Dimension are as follows:

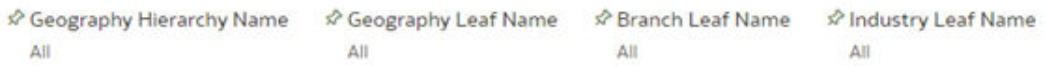
- As of Date (Year)
- As of Date (Day)

Figure 5-129 Other Canvas Prompt Filters

- **Currency Code**: You can use this filter to select a specific Currency Code for the underlying Instrument Tables Accounts.
- **Segment Type**: You can use this filter to select a specific Segment Type for the Customer Profile.
- **Segment Name**: You can use this filter to select a specific Segment Type under the classification of segmentation Gold, Silver, Platinum, or Bronze.
- **Customer Type Name**: You can use this filter to select the Customer Type for the underlying Instrument Tables Accounts.
- **Org Hierarchy Name**: This is a mandatory filter for the group filtering on Org Unit Key Processing Dimension. As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, a mandatory driver to select "Org Hierarchy Name" must be selected with only a single value simultaneously.
- **Org Unit Leaf Name**: You can use this filter to select the Org Unit Leaf Name corresponding to the hierarchy.
- **Product Hierarchy Name**: This filter is for the group filtering on Product key processing dimension. As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, you must select the Leaf Name with only a single value simultaneously to view results at leaf level.

- **Product Leaf Name**: You can use this filter to select the Product Leaf Name corresponding to the hierarchy.

Figure 5-130 Standard Dimensions Prompt Filters



- **Geography Hierarchy Name**: This filter is for the group filtering on Geography key processing dimension. As the Application supports the creation of multiple hierarchies for the same Dimension of analysis, and to avoid displaying results from multiple Dimension Hierarchies at the same time, you must select the Leaf Name with only a single value simultaneously to view results at leaf level.
- **Geography Leaf Name**: You can use this filter to select a specific Geography value at leaf level related to the underlying instrument tables accounts.
- **Branch Leaf Name**: You can use this filter to select a specific Branch value at leaf level related to the underlying instrument tables accounts.
- **Industry Leaf Name**: You can use this filter to select a specific Industry value at leaf level related to the underlying instrument tables accounts.

5.6.1.2 In-canvas Variable Prompts

Figure 5-131 In-canvas Prompt Filters for Canvas

- **Select Customer Name**: You can use this filter to isolate a selected Customer Name for the analysis.
- **Select Customer Number**: You can use this filter to isolate a selected Customer Number for the analysis.
- **Select Account Number**: You can use this filter to isolate a selected Account Number for the analysis.

The following screenshot displays this filter's possible options against the Customer Dimension.

5.6.1.3 Customer Details Canvas

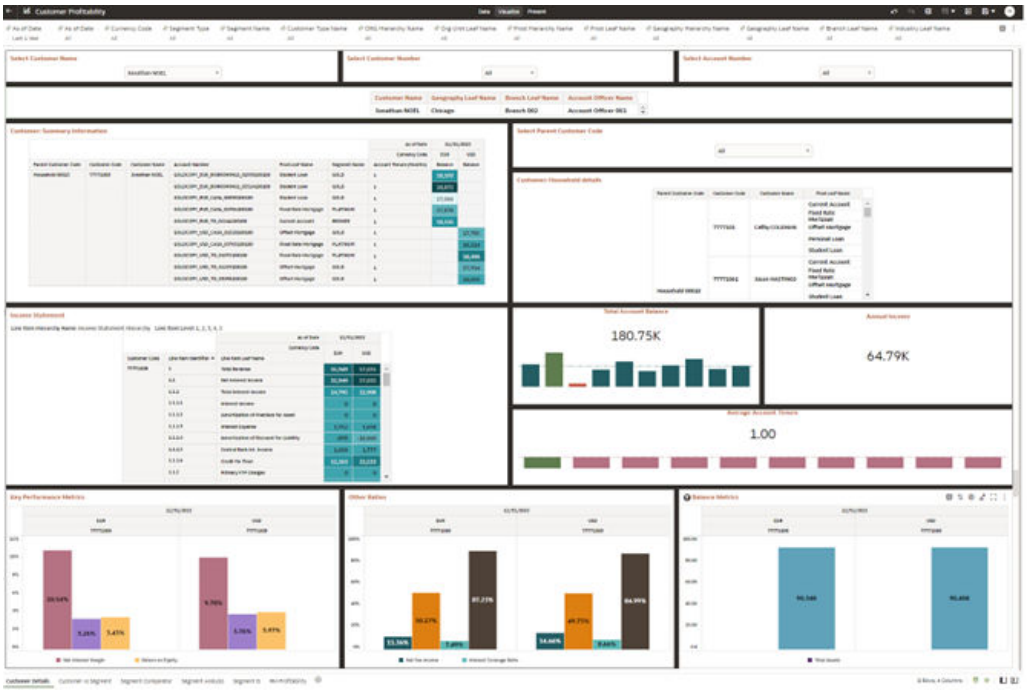
The customer profitability analysis detailed summary displays differents perspectives of customer and household data.

You can select, a customer name, customer number, or account number. This helps in navigating to the profile belonging to the customer.

For example, Select a specific customer as Jonathan Noel.

This displays data available in detail around the accounts of the selected customer.

Figure 5-132 Canvas Customer Detail



The customer summary information report shows the following details that are of interest to a front office persona:

- Product Holding
- Tenure of the products
- Account Balance
- Segment Information

As per selected dates:

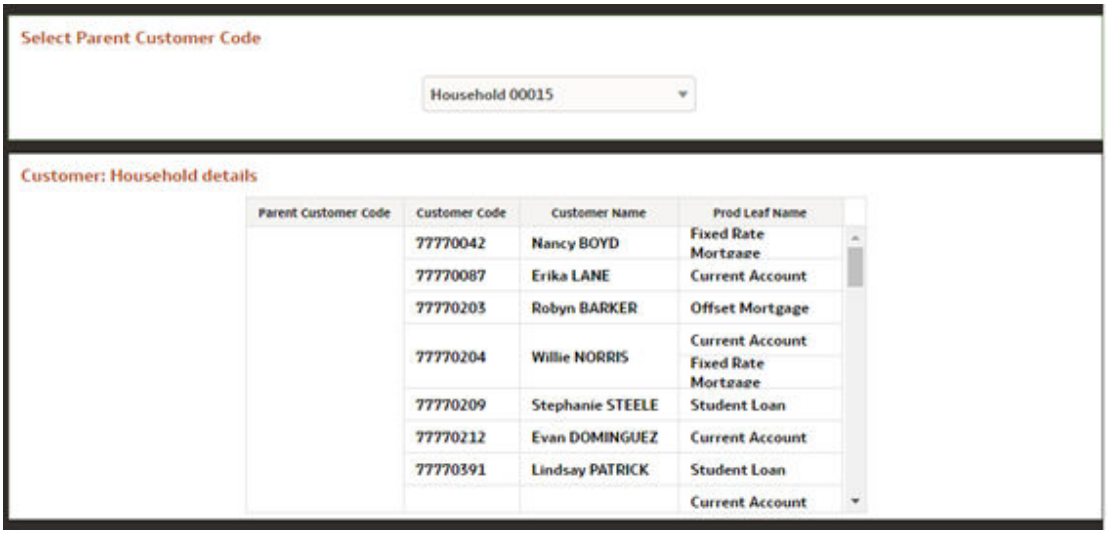
Figure 5-133 Report - Customer : Summary Information

Customer: Summary Information

						As of Date	01/31/2022	12/31/2022
						Currency Code	USD	USD
Parent Customer Code	Customer Code	Customer Name	Account Number	Prod Leaf Name	Segment Name	Account Tenure(Months)	Balance	Balance
Household 00015	77771008	Jonathan NOEL	GOLDCOPY_USD_CASA_01520100100	Offset Mortgage	GOLD	1		17,785.00
			GOLDCOPY_USD_CASA_02581100100	Fixed Rate Mortgage	PLATINUM	1	18,611.00	
			GOLDCOPY_USD_CASA_02589100100	Current Account	BRONZE	1	18,855.00	
			GOLDCOPY_USD_CASA_03703100100	Fixed Rate Mortgage	PLATINUM	1		18,114.00
			GOLDCOPY_USD_TD_01072100100	Fixed Rate Mortgage	PLATINUM	1		18,496.00
			GOLDCOPY_USD_TD_01229100100	Offset Mortgage	GOLD	1		17,914.00
			GOLDCOPY_USD_TD_03098100100	Offset Mortgage	GOLD	1		18,093.00

This report shows details of the banks customers who belong to the same household as that of the selected customer. The customer names are displayed along with the product holdings. In a wholesale context, this shows the subsidiaries of the selected customer.

Figure 5-134 Report - Customer: Household Details

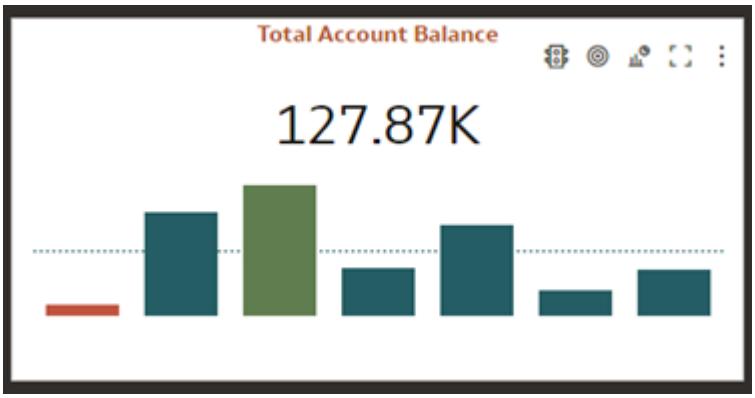


This report shows the P&L statement for the selected customer. The view is very detailed with all line item leaves. The view can however be compressed by selecting the appropriate level filter.

Figure 5-135 Report Income Statement Details

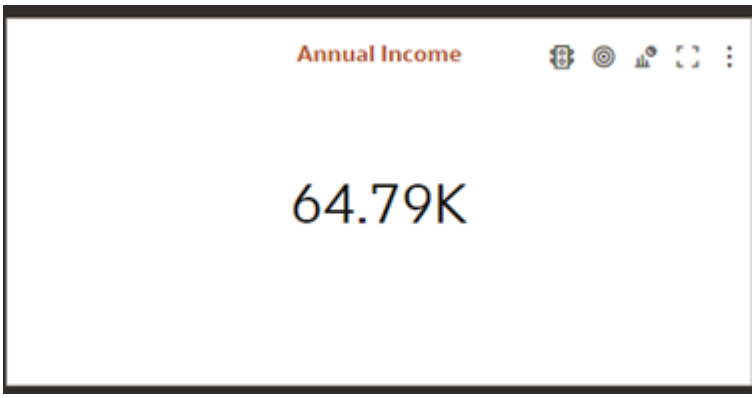
This tile shows a the total balances held by the customer at the bank across asset and liability products. The bars show the amounts for the individual products that are held by the customer, details of which can be viewed via mouseover.

Figure 5-136 Tile - Total Account Balance



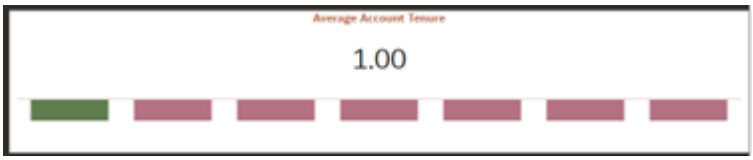
This tile shows the customer income in terms of his salary or compensation. For a wholesale customer, this would be the net profits of the enterprise.

Figure 5-137 Tile - Annual Income



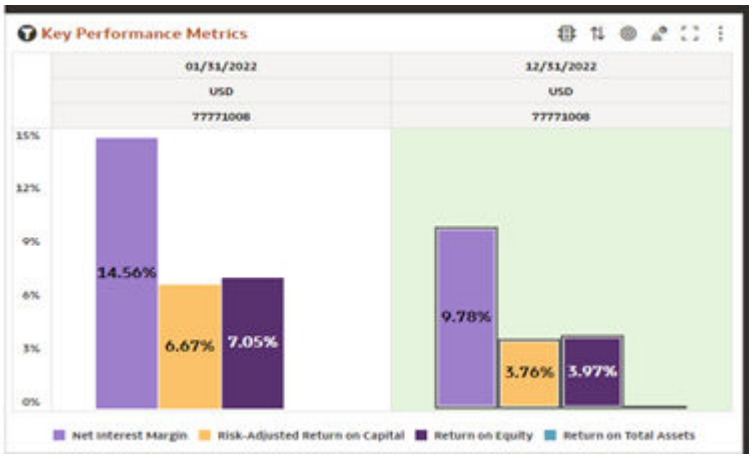
This tile shows the average account tenure of the customer at the bank across all his accounts. The bars show the tenures for the individual products/ accounts that are held by the customer, details of which can be viewed via mouseover.

Figure 5-138 Tile - Average Account Tenure



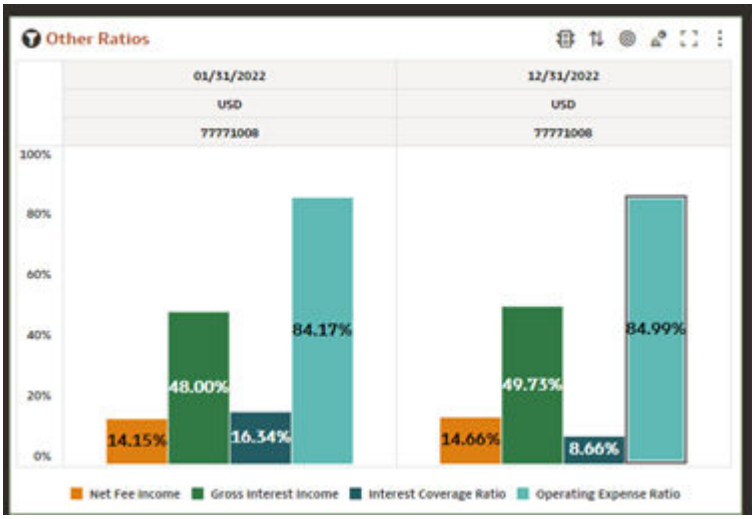
This report displays the NIM, RAROC, ROTA and ROE for the selected customer, aggregated from the customer accounts.

Figure 5-139 Report Key Performance Metrics



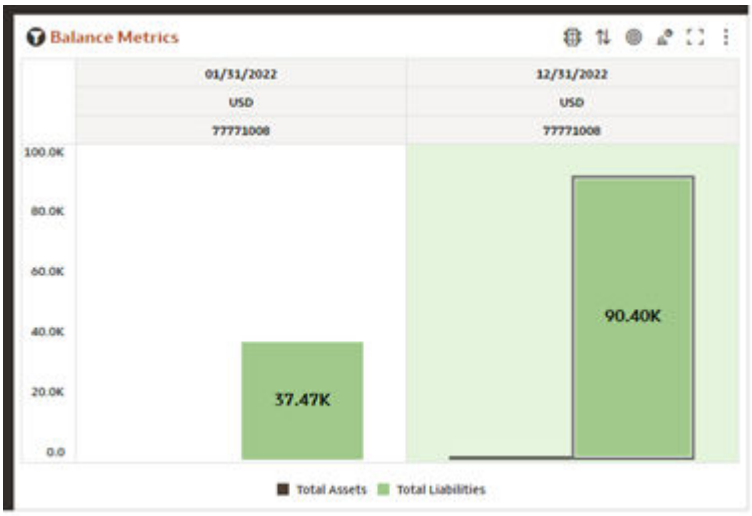
This report displays the NFI, GII, Interest Coverage and OpEx for the selected customer, aggregated from the customer accounts.

Figure 5-140 Report - Other Ratios



This report gives a view of the asset and liability balances of the customer as held at the bank across time periods.

Figure 5-141 Report - Balance Metrics



5.6.1.4 Customer vs Segment

This dashboard presents the customer as a comparison with the segment that he belongs to or any other segment of interest to the analyst.

For example, Select a specific customer as Jonathan Noel.

Exploring metrics around the customer's annual income, the net income before taxes, the number of accounts belonging to the customer, credit score, and others.

Next, you can view the number of transactions across the different channels. And track the dimensional analysis for the average transaction amount.

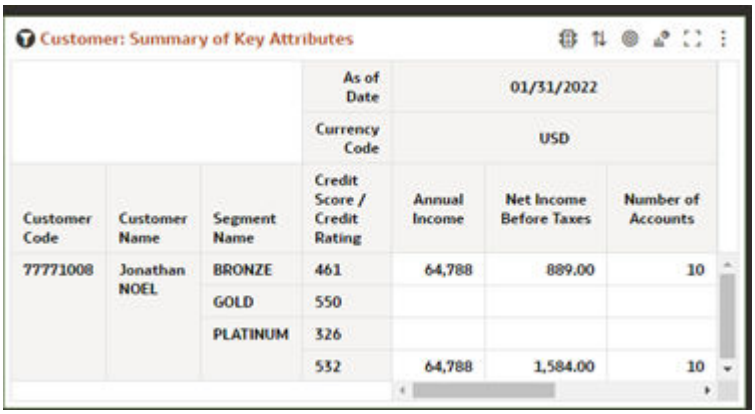
Figure 5-142 Canvas Customer vs Segment

Report – Customer : Summary Key Attributes: This report displays the following customer attributes:

- Credit Score/ Credit Rating as is the case for a Retail or Wholesale customer
- Segment
- Annual Income
- NIBT
- # Accounts

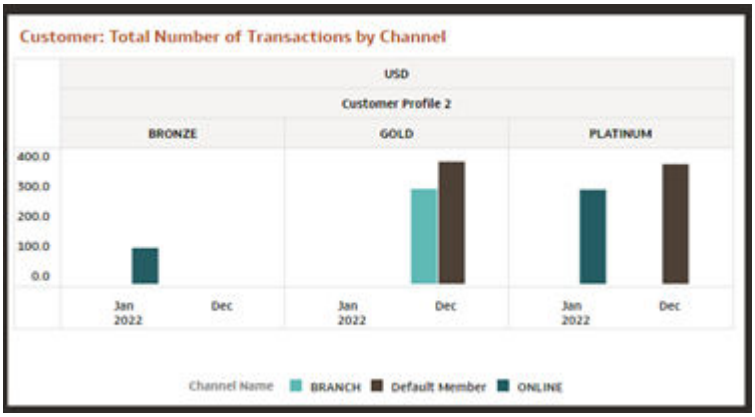
This report gives a view across selected time periods.

Figure 5-143 Report – Customer : Summary Key Attributes



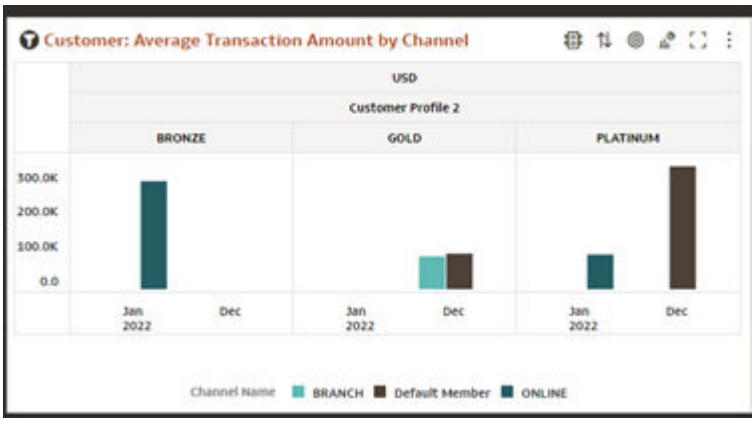
Report Total Number of Transactions by Channel: This report gives a view of the total number of transactions in different channels across time periods.

Figure 5-144 Report Total Number of Transactions by Channel



Report : Average Transaction Amount by Channel: This report gives a view of the average transaction amounts in different channels across time periods.

Figure 5-145 Report : Average Transaction Amount by Channel

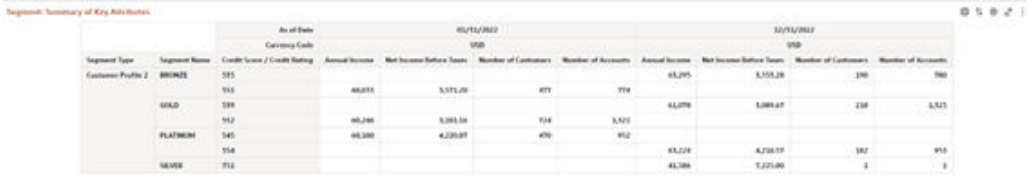


In-canvas Prompt Filter to select Segment for comparison

Figure 5-146 In-canvas Prompt Filter to select Segment for comparison

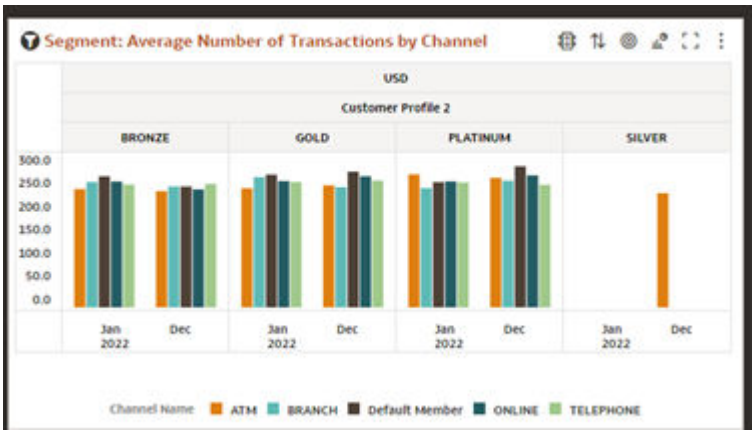
Report : Segment Summary Key Attributes

Figure 5-147 Report : Segment Summary Key Attributes



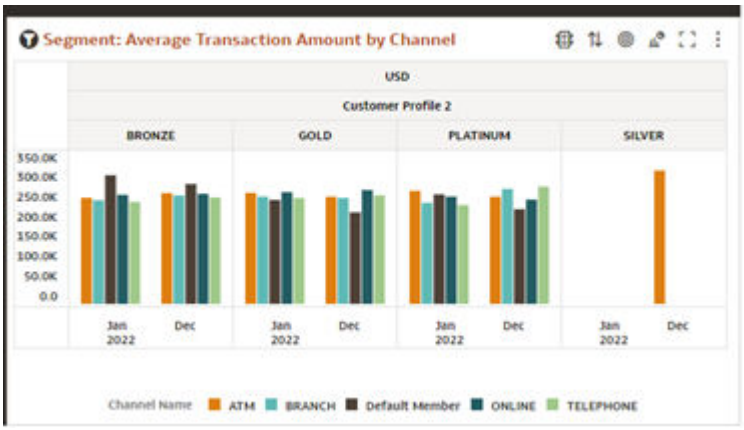
Report : Average Number of Transactions by Channel for selected Segment

Figure 5-148 Report : Average Number of Transactions by Channel for selected Segment



Report : Average Transaction Amount by Channel for selected segment

Figure 5-149 Report : Average Transaction Amount by Channel for selected segment



5.6.1.5 Segment Comparator

In this dashboard, the dimensions and attributes are compared across Segments.

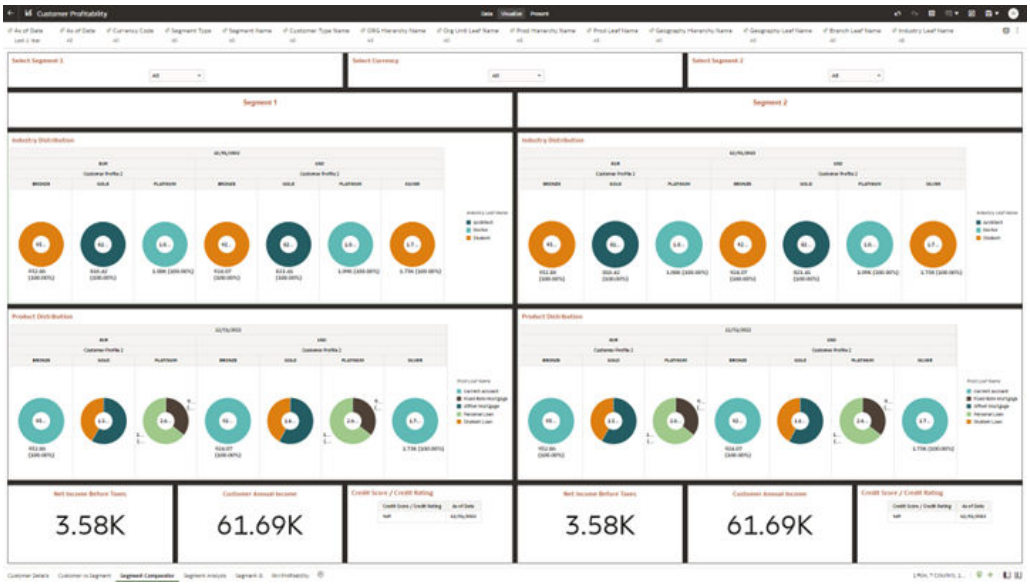
For instance, segment 1 versus segment 2.

Currently, the comparison exists for Industry, Product Distribution, Net Income Before Taxes, Customer Annual Income, and Credit Score. This comparison can be analysed across time periods.

Note that if it's a retail customer rather than a wholesale one, you can move from the actual industry to the profession. The same logic is applicable for Credit Score and Credit Rating.

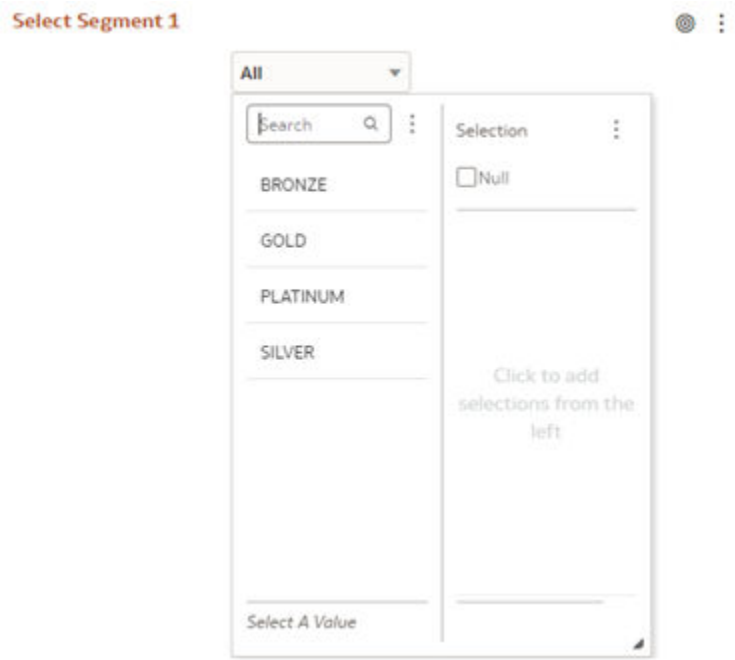
Note that The segment Type for the purposes of the illustration is Demographic (for retail use case).

Figure 5-150 Canvas Segment Comparator



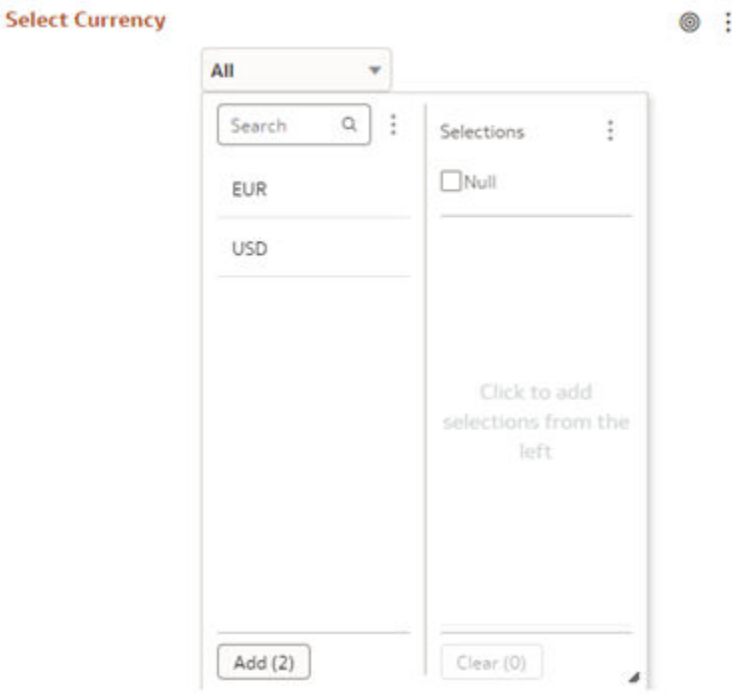
- **Segment 1**: You can use this filter to select, for a specific Segment Type the specific segmentation scheme - Gold, Silver, Platinum, or Bronze.

Figure 5-151 In-canvas Prompt Filters for Segment 1



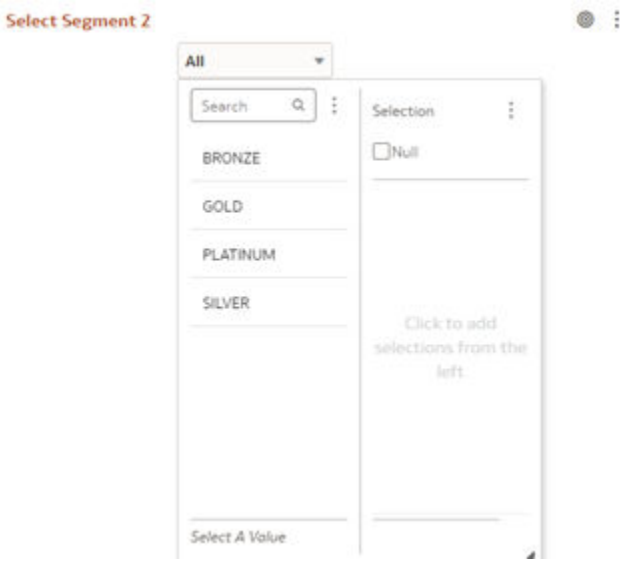
- **Currency Code**: You can use this filter to select a specific Currency Code for the underlying Instrument Tables Accounts.

Figure 5-152 In-canvas Prompt Filters for Currency



- **Segment 2**: You can use this filter to select, for the Segment Type corresponding to Segment 1, the specific segmentation scheme against which you want to compare Segment 1 selection with.

Figure 5-153 In-canvas Prompt Filters for Segment 2

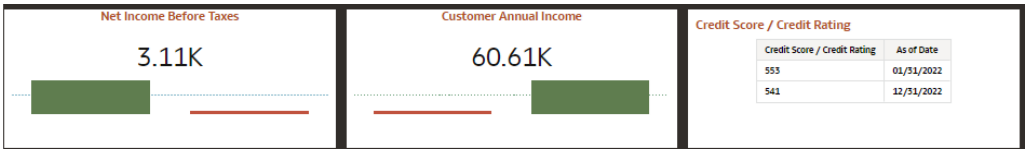


Report Segment 1 - Industry and Product Distribution: This report gives a view of the Industry/ Profession and Product Distribution of Segmentation scheme selected as Segment 1 across time periods.

Figure 5-154 Report Segment 1 - Industry and Product Distribution

This report gives a view of the Average NIBT, average customer income and average credit score/distribution of credit ratings of Segmentation scheme selected as Segment 1 across time periods.

Figure 5-155 Report Segment 1 Details

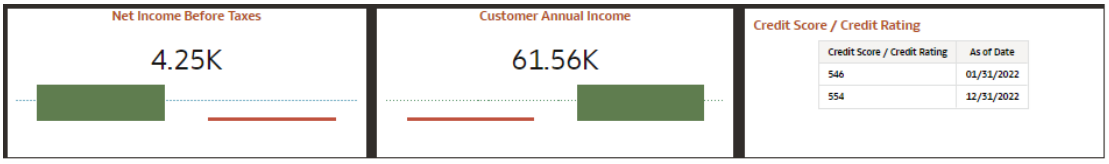


Report Segment 2 - Industry and Product Distribution: This report gives a view of the Industry/ Profession and Product Distribution of the comparator Segmentation scheme selected as Segment 2 across time periods.

Figure 5-156 Report Segment 2 - Industry and Product Distribution

This report gives a view of the Average NIBT, average customer income and average credit score/ distribution ofcredit ratings of the comparator Segmentation scheme selected as Segment 2 across time periods.

Figure 5-157 Report Segment 2 Details



5.6.1.6 Segment Analysis

This canvas provides Detailed Analysis at the Segment Level (for all Segments and Segment Types as defined by the user).

You can use a series of Report Prompts, as previously described, to filter the data. In addition, there are In-Report prompt selections to select the Top/ Bottom N org units that you are interested in and the corresponding data will be displayed.

Figure 5-158 Canvas Segment Analysis

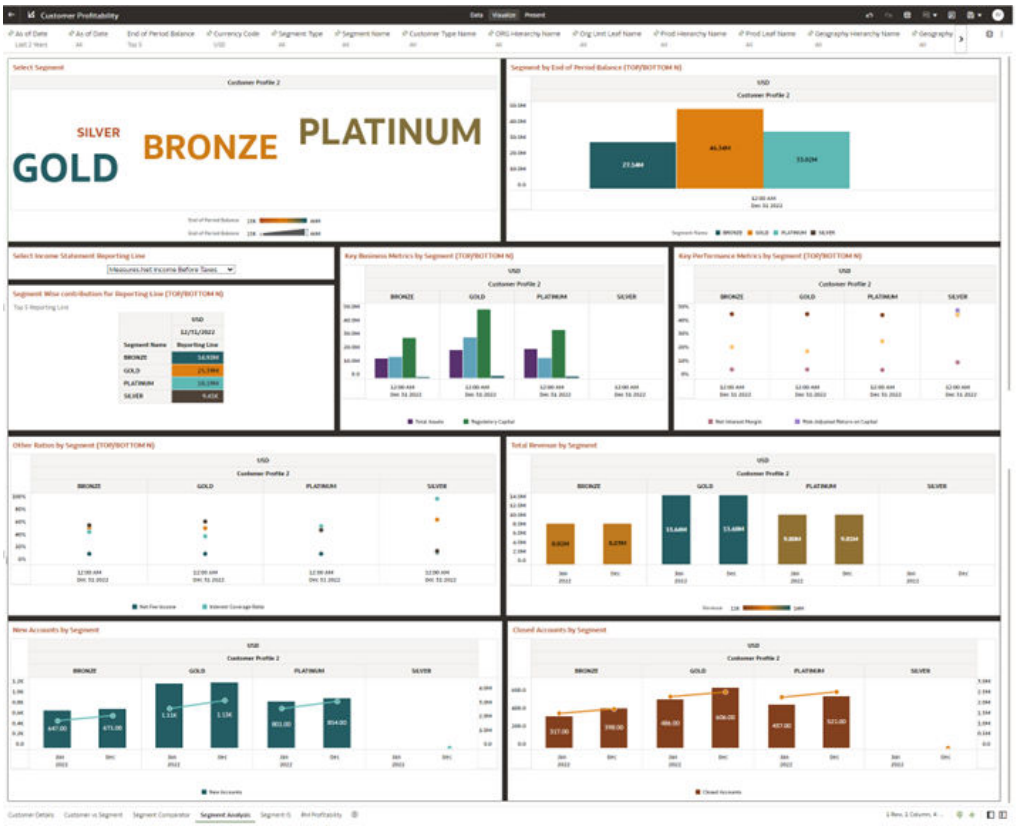
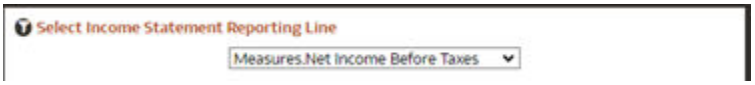


Figure 5-159 Target Cloud for Segment Type - Customer Profile 2

Report - Segment by End of Period Balance (Top/Bottom N): The chart displays the Top N (N selected from the chart prompt) and bottom N Segments sorted in a descending order by End of Period Balances.

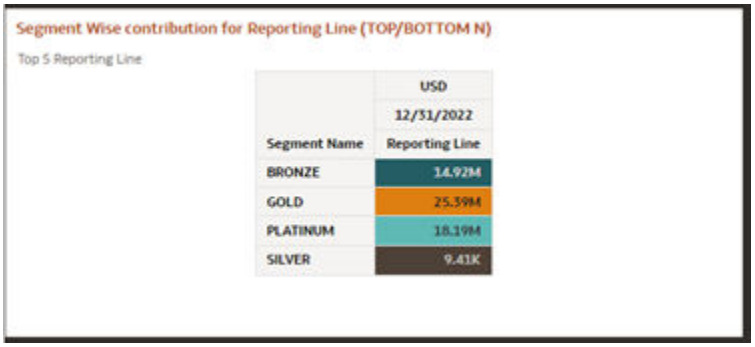
Figure 5-160 Report - Segment by End of Period Balance (Top/Bottom N)

Figure 5-161 In-canvas Prompt Filter Income Statement Report Line



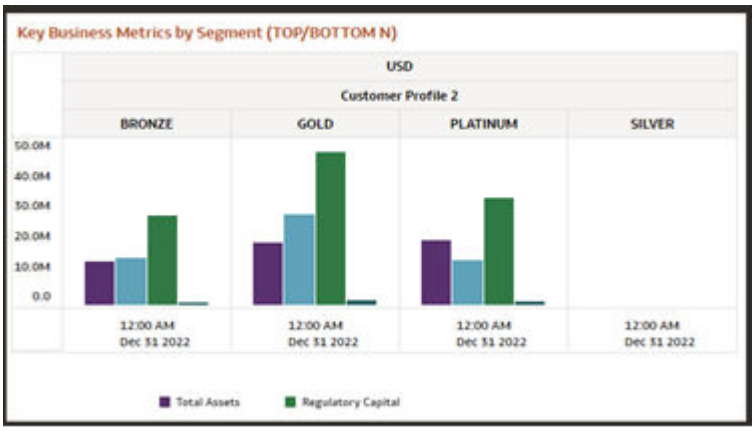
Report - Segment Wise contribution for Report Line (Top/ Bottom N): In this chart, for the selected reporting line, the Top N (N selected from the chart prompt) and bottom N Segments are displayed in descending order of value of the reporting line.

Figure 5-162 Report - Segment Wise contribution for Report Line (Top/ Bottom N)



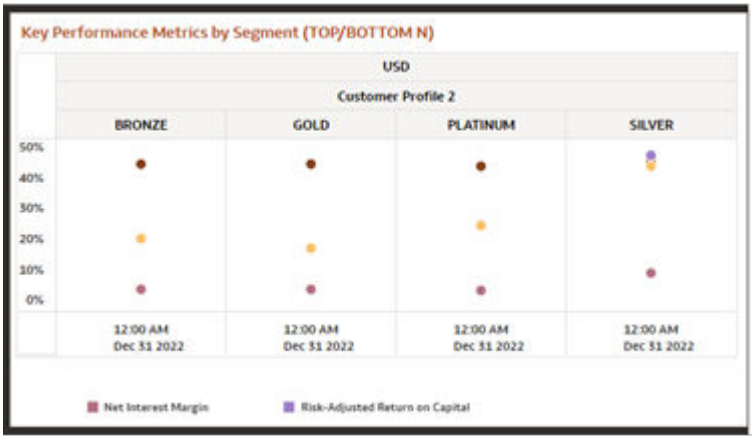
Report - Key Business Metrics by Segment (Top/ Bottom N): The chart displays the Top N (N selected from the chart prompt) and bottom N Segments sorted in a descending order by End of Period Balances and provides the break up between Asset and Liability Balances along with Regulatory and Economic Capital.

Figure 5-163 Report - Key Business Metrics by Segment (Top/ Bottom N)



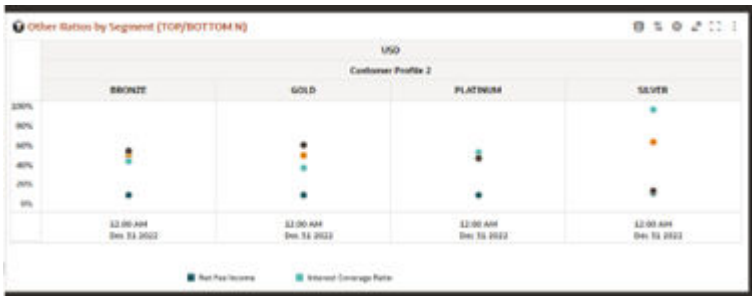
Report - Key Performance Metrics by Segment (Top/ Bottom N): The chart displays the Top N (N selected from the chart prompt) and bottom N Segments sorted in a descending order by End of Period Balances and provides selected KPI's like NIM, RAROC, ROE and ROTA of these Segments.

Figure 5-164 Report - Key Performance Metrics by Segment (Top/ Bottom N)



Report - Other Ratios by Segment (Top/ Bottom N): The chart displays the Top N (N selected from the chart prompt) and bottom N segments sorted in a descending order by End of Period Balances and provides selected business metrics like Net Fee Income, Gross Interest Income, Interest Coverage Ratio and Debt coverage ratio, all expressed as percentages.

Figure 5-165 Report - Other Ratios by Segment (Top/ Bottom N)



Report - Total Revenue by Segment (Top/ Bottom N): The chart displays the Top N (N selected from the chart prompt) and bottom N Segments sorted in a descending order of Revenues of these Segments.

Figure 5-166 Report - Total Revenue by Segment (Top/ Bottom N)

Report - New Accounts by Segment: The chart displays the Top N (N selected from the chart prompt) and bottom N Segments sorted in a descending order of number of new accounts of these Segments across time periods.

Figure 5-167 Report - New Accounts by Segment

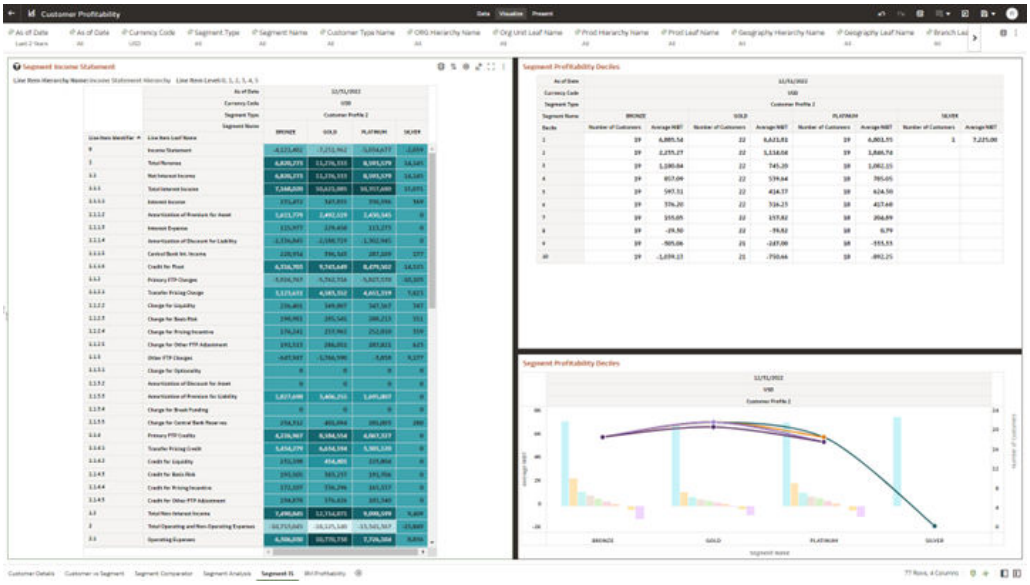
Report - Closed Accounts by Segment: The chart displays the Top N (N selected from the chart prompt) and bottom N Segments sorted in a descending order of number of closed accounts of these Segments across time periods.

Figure 5-168 Report - Closed Accounts by Segment

5.6.1.7 Segment Income Statement

In this dashboard, Detailed Income Statement at Segment Level (for all Segments within selected Segment Type, as defined by the user) can be viewed.

Figure 5-169 Canvas Segment Income Statement



Report : Segment Income Statement: This view provides Detailed Segment level Income Statement in same format, as can be seen in other detailed income statements.

Figure 5-170 Report : Segment Income Statement

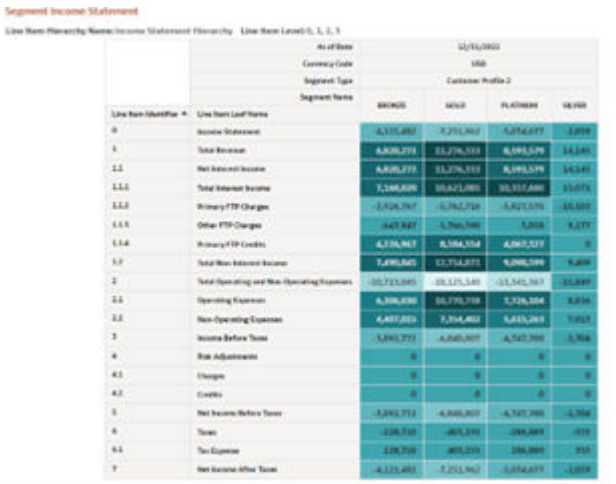
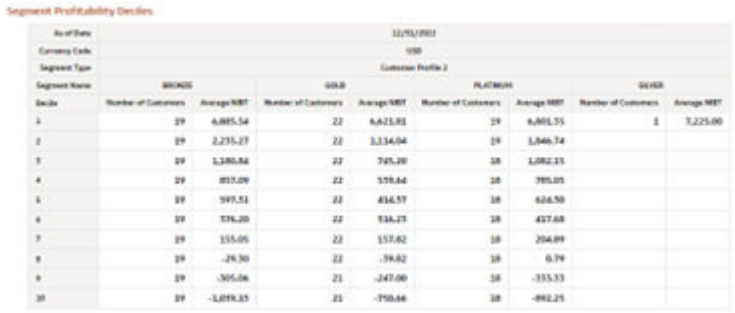


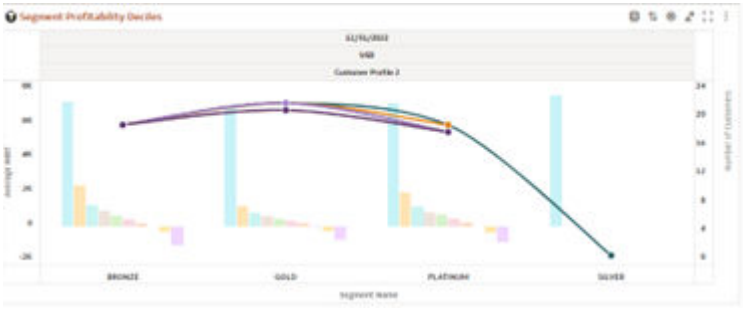
Table Segment Profitability Deciles: For a selected Segment type, the profitability deciles table show the customer distribution across the different segments and shows income generated by customers of these segments in a decile view, the top decile showing the most profitable customers of the segment. This # customers and average NIBT can be compared across segments for the selected segment type.

Figure 5-171 Table Segment Profitability Deciles



Canvas Segment Profitability Deciles: For a selected Segment type, the profitability deciles chart, visually shows the customer distribution across the different segments and shows income generated by customers of these segments in a decile, the top decile showing the most profitable customers of the segment. This # customers is shown by the line chart and average NIBT shown by the bars in this double axis chart.

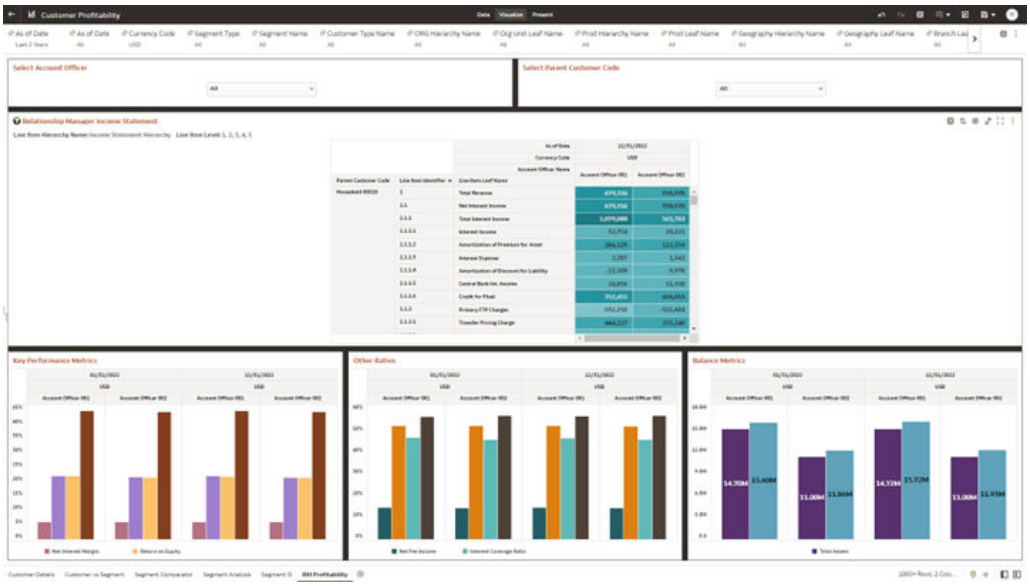
Figure 5-172 Canvas Segment Profitability Deciles



5.6.1.8 RM Profitability

In this canvas, Relationship manager performance can be monitored at multiple dimensions – You can choose Choose Relationship manager (Account Officer) hierarchy in the dropdown and understand profitability at individual and org level.

Figure 5-173 Canvas RM Profitability

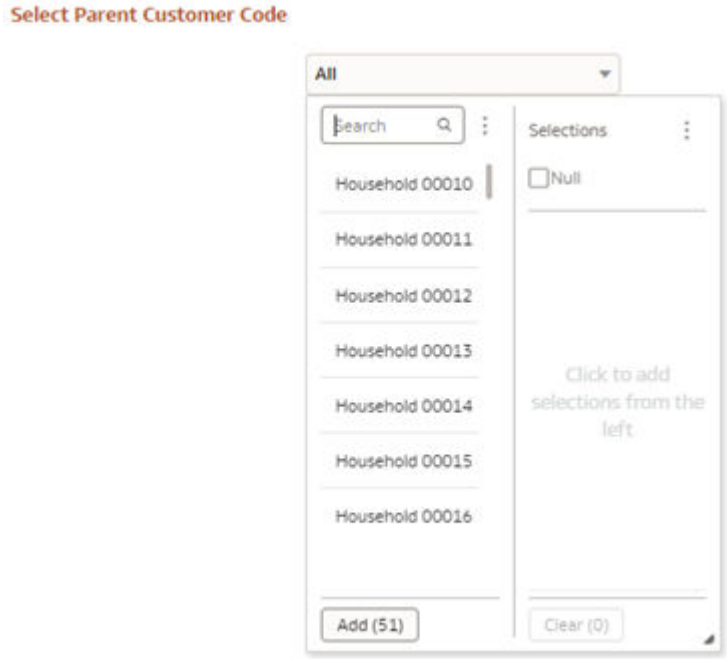


Account Officer: You can use this filter to select all or specific Account Officer.

Figure 5-174 In-canvas Prompt Filter Account Officer

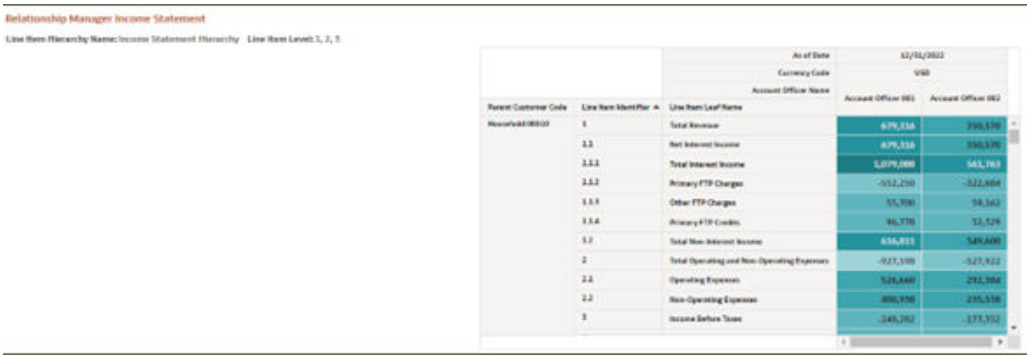
Parent Customer Code: You can use this filter to select all or specific Parent Customer Code, which specifically supports wholesale use cases for customer Group structures.

Figure 5-175 Parent Customer Code



Report - Relationship Manager Income Statement: The report shows a detailed Income statement at the level of the relationship manager for selected customer group for accurate Expense Analysis & Revenue breakdowns with a view of overall income generated to the bank.

Figure 5-176 Report - Relationship Manager Income Statement



Report - Key Performance Metrics: The report shows the following KPI's – NIM, RAROC, ROE and ROTA at the level of the relationship manager for selected customer group.

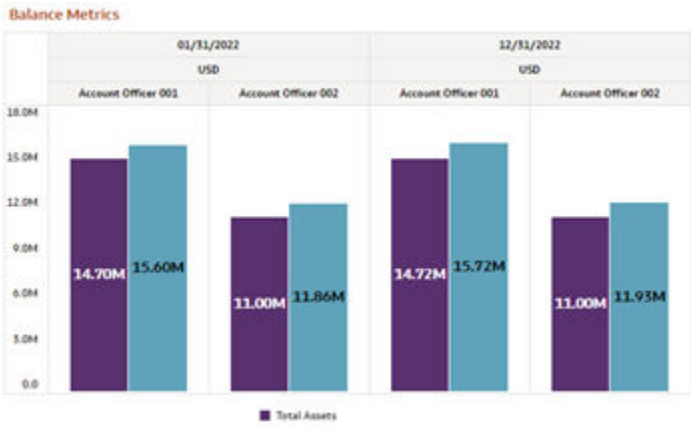
Figure 5-177 Report - Key Performance Metrics

Report - Other Ratios: The report shows the following selected business metrics like Net Fee Income, Gross Interest Income, Interest Coverage Ratio and Debt coverage ratio, all expressed as percentages, at the level of the relationship manager for selected customer group.

Figure 5-178 Report - Other Ratios

Report - Balance Metrics: The report shows Asset and Liability Balances at the level of the relationship manager for selected customer group.

Figure 5-179 Report - Balance Metrics



6
Setup Configurations

The Set Up Configurations section of the PACS menu allows the user to check Batch Parameters to execute batches, define the mappings from Financial Elements to Instrument Line Items and define Segmentation Schemes for multiple Segment Types.

Topics:

6.1 Preferences

This section discusses the procedure to set the Global and Application preference setings.

To configure the Preferences, perform the following steps:

1. From the LHS Menu, navigate to **Setup Configurations**, and select **Preferences** to display the Application Preference Screen.
2. Select the user from **Show Preferences for** the drop-down list. This has the following options:
    - **All User**: If you have Administrator Privileges, you can define preferences for the All User Group and their individual account, which may be the same or different from the All User Settings. The Administrator can also designate the All User Preferences as Editable or Non-Editable on a row-by-row basis. If the individual preference is selected, as is Editable, then End Users can update or override the Administrator's default value for their own individual account. If the Is Editable box is deselected, then End Users cannot change the default for their individual account.
    - **End-User**: If you do not have Administrator Privileges, then certain preference items are pre-set by the Administrator and you may not be allowed to change the value. All Application Preference Settings are displayed, regardless of the access privilege.

> **Note:**
>
> **Is Editable** status is disabled since individual users are not expected to modify the following parameters.

6.1.1 Global Preferences

To set the Global Preferences, perform the following steps:

1. From the LHS Menu, navigate to **Setup Configurations**and select **Preferences**.
2. Under Global Preferences, enter the values as described in the following table.

Table 6-1 Global Preferences

Parameter	Description
Date Format	Select one value from the following list: • dd-MMM-yy • yyyy/MM/dd • MM/dd/yyyy • dd.MM.yyyy • MM-dd-yyyy • yyyy.MM.dd • yyyy/MMM/dd • dd-MMM-yyyy • dd/MMM/yyyy • yyyy.MMM.dd • dd/MM/yyyy • MM.dd.yyyy • dd-MM-yyyy • yyyy-MM-dd • dd.MMM.yyyy • yyyy-MMM-dd
Pagination Count	Pagination Records determine how many rows are displayed on summary and other screens. If you select Pagination Records to be 25 records, then any screen displaying results in a tabular format displays a maximum of 25 records.
Group Company Legal Hierarchy	This displays list of Legal Entity hierarchies that are configured in Dimension Management. Select one hierarchy that you want to use as the default legal entity.
Currency Rate Provider	This displays list of providers of Currency Exchange Rate. Value “Default” is seeded and selected as default. If you load Exchange Rates from more than one source like Reuters and Bloomberg then select one which you want the engine to use during processing. Members of dimension Rate Data Source are displayed in the drop-down list.
Functional Currency	A common functional currency is required which can be set here. This is required to consolidate the accounts' balances or charges at multiple hierarchy levels.

3. Click **Save** to confirm the changes or click **Reset to Default** to reset the Custom Configuration.

6.1.2 Application Preferences

Application Preferences Parameters are used to configure the Settings at the application level.

To update the Application Preferences, perform the following steps:

1. From the LHS Menu, navigate to **Setup Configurations** and select **Preferences**.
2. Click the **Application** tab and enter following values:

Table 6-2 Application Preferences Preferences

Parameter	Description
Parameters General	
Income Statement Hierarchy Selection	This displays list of Financial Element hierarchies that are configured in Dimension Management. Select one hierarchy that you want to use as the default income statement.
Balance Sheet Hierarchy Selection	This displays list of Financial Element hierarchies that are configured in Dimension Management. Select one hierarchy that you want to use as the default balance sheet.
Default Organizational Unit Hierarchy	This displays list of org unit hierarchies that are configured in Dimension Management. Select one hierarchy that you want to use as the default org unit.
Default Product Hierarchy	This displays list of product hierarchies that are configured in Dimension Management. Select one hierarchy that you want to use as the default product.
Default Region Hierarchy	This displays list of geographic location hierarchies that are configured in Dimension Management. Select one hierarchy that you want to use as the default geographic location.
Default Begin Financial Year	The default month that marks the beginning of the financial year for the bank.
Default End Financial Year	The default month that marks the ending of the financial year for the bank.
Processing - Application Specific	
Maximum Number of Segmentation Definition	The maximum number of segmentation definitions allowed. This is an integer value with maximum value allowed as 7.
Discount Factor for CLTV Processing (%)	Discount Factor for CLTV processing - this is a value from 0 to 100 (where 0 is 0% and 100 is 100%). The value allows upto 2 decimal places.
Assumption Management Defaults	
Default Folder	This parameter allows you to define the default folder selection. The folder selection for all rule types will be defaulted to this selection within the summary page Search screen and when creating a new rule. This selection acts as the starting value for convenience only and users can change to any other available value at their discretion.

Table 6-2 (Cont.) Application Preferences Preferences

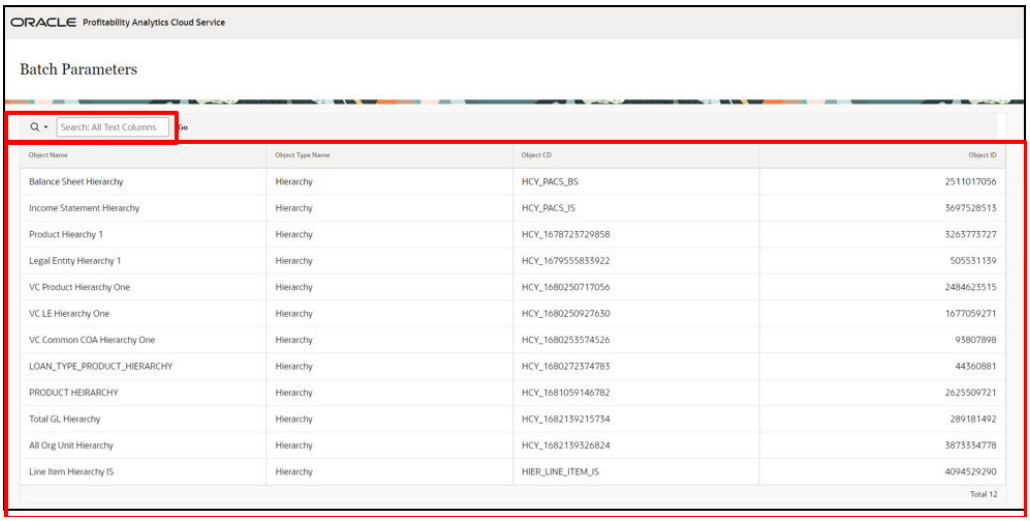
Parameter	Description
Access Type	This parameter allows you to set the default access typesetting. Selections include Read/ Write and Read Only. This selection acts as the starting value for convenience only and users can change at their discretion.

3. Click **Save** to confirm the changes or click **Reset to Default** to reset the Custom Configuration.

6.2 Batch Parameters

The Batch Parameters UI allows the user to check for the identifier to be utilized to correctly configure, schedule, and execute batches relevant to Profitability Analytics.

Figure 6-1 Batch Parameters - Summary



To check for the Batch Parameters, follow these steps:

1. To open the Batch Parameters screen, navigate to **Profitability Analytics Cloud**, select **Setup Configurations**, and then select **Batch Parameter**.
   The Batch Parameters screen displays a list of parameters that are already configured in the system or that will be configured by user interaction with the application. This screen displays the following details related to element/s, such as Hierarchy/Hierarchies and Segment/Segments that will be utilized by the batch execution as a parameter:
   - Object Name
   - Object Type
   - Object CD
   - Object ID
2. You can use the **Search** function to search for the out-of-the-box element objects.

3. You can use the **Object ID** from this screen to schedule your Batch.

6.3 Financial Element Mapping

The Financial Element Mapping user interface allows you to map the Financial Elements with the Portfolio Instrument columns.

6.3.1 Navigation in the Summary Screen

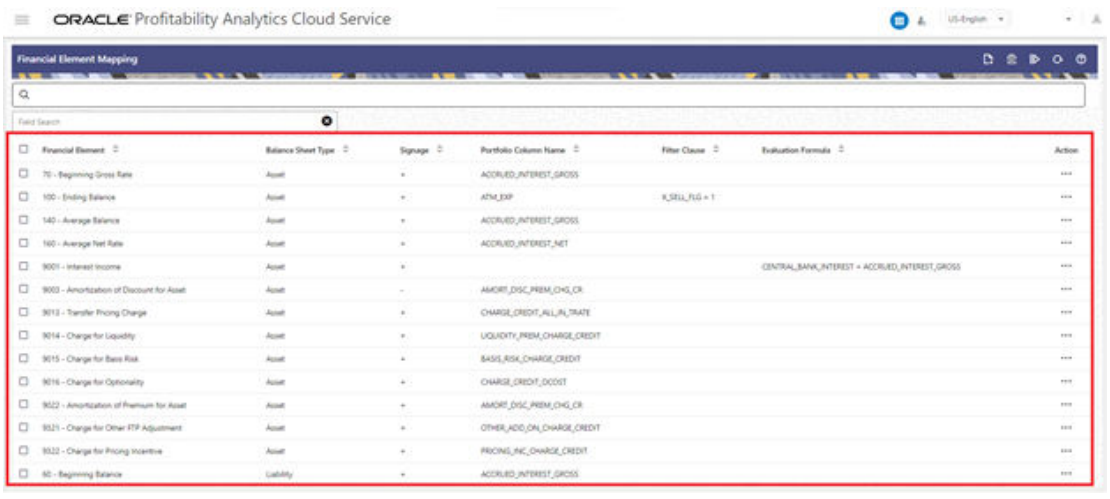
To open the Financial Element Mapping screen, from the LHS Menu, select Setup Configurations, and then select Financial Element Mapping.

The Financial Element Mapping summary screen is displayed with the following details:

- Financial Element Member (enables to map the Financial Element members with the portfolio instrument columns)
- Balance Sheet Type (Asset or Liability)
- Signage (plus or minus)
- Portfolio Column Name (enables to map portfolio instrument columns calculated via Profitability Management)
- Filter Clause (allows to select one or more values out of all the portfolio columns and apply filtering to the underlying accounts for this mapping)
- Evaluation Formula (allows to select one or more portfolio columns to be used to compute a calculation, leveraging math operators as "+", "-", "*", "/" and "%", and apply the resulting formula to the underlying accounts for this mapping)
- Action menu (edit and delete options are available only for user created mapping entries)

The Financial Element Mapping summary screen displays the Seeded Financial Elements as well as the new user defined entries.

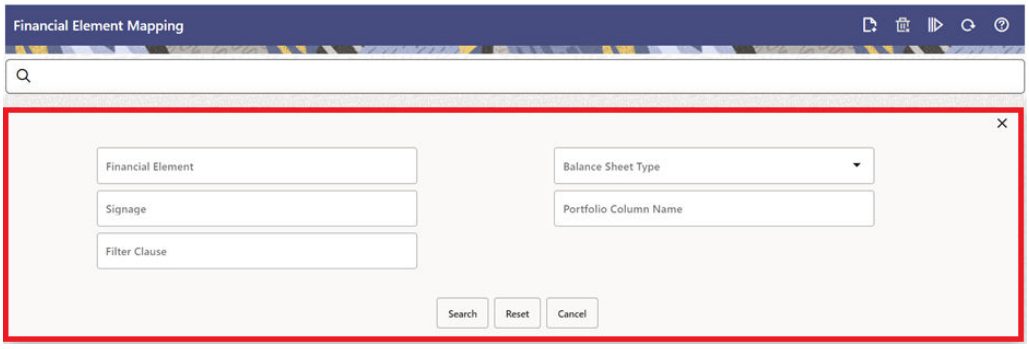
Figure 6-2 Financial Elements Summary Screen



6.3.1.1 Search

There are two Search options provided to search the Financial Element Mapping on the summary page.

Figure 6-3 Search Option Collapsed



To search the Financial Element Mapping, follow these steps:

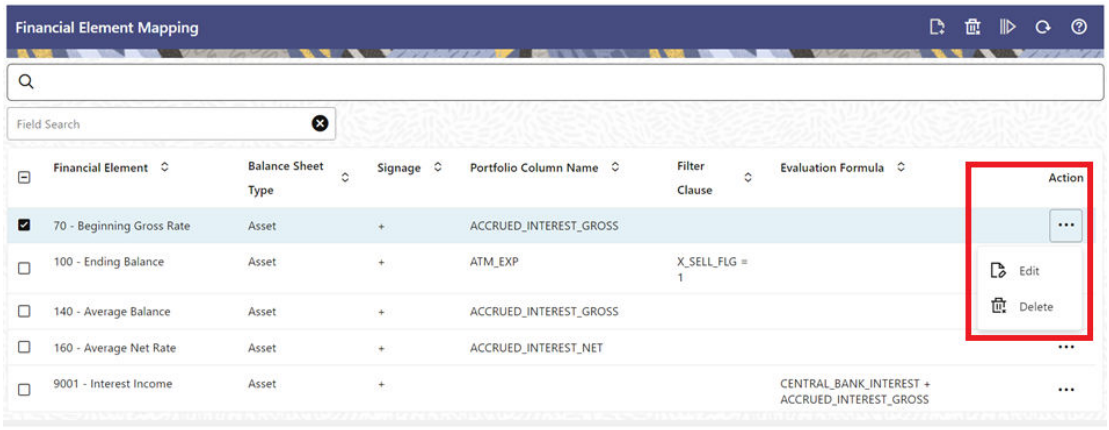
1. Click the **Search** icon on the Search pane to collapse (display) the Criteria window.
2. Enter the **Financial Element Name**, and/or **Signage**, and/or **Filter Clause**, and/or **Balance Sheet Type**, and/or **Portfolio Column Name**, and then click **Search** to display the Financial Element Mapping that matches the criteria.
   The search results are displayed in a table containing all the Financial Element Mappings that meet the search criteria.
3. Click **Reset** to remove the criteria on the Search window and start with new criteria definition.
4. Click **Cancel** to exit from search pane and refresh the window.
5. The other method to search a Financial Element Mapping is using the **Field Search** option. The Field Search is an inline wildcard search that allows you to enter value partially or fully and the row that match the entered string in any of the columns is fetched in the Summary table.

Figure 6-4 Field Search

6.3.1.2 Financial Element Mapping Summary Table

This section of the screen presents a table containing the already created Financial Element Mappings.

Figure 6-5 Financial Element Mapping Summary Table – Action Column



The Financial Element Mapping summary table displays the following details:

- Financial Element
- Balance Sheet Type
- Signage
- Portfolio Column Name
- Filter Clause
- Evaluation Formula
- Action

The Action column on the Financial Element Mapping Summary screen allows you to perform different functions:

- **Edit**: Click the Edit icon to modify a previously saved Financial Element Mapping as the user is launched into the Financial Element Mapping Detail screen in edit mode.
- **Delete**: Click Delete to delete the Financial Element Mapping you have selected.

6.3.2 Adding a Financial Element Mapping

This procedure describes the steps to create Financial Elements, and then map the segments to the segment types as a part of the profitability insight analysis.

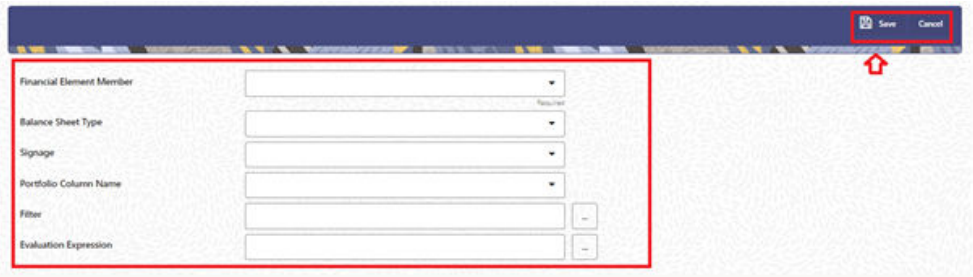
To do the segmentation mapping, follow these steps:

1. To open the Financial Element Mapping screen, navigate to **Profitability Analytics Cloud**, select **Setup Configurations**, and then select **Financial Element Mapping**.

Figure 6-6 Financial Element Mapping – Add

2. Click **Add** to open the Financial Element Mapping Definition screen.

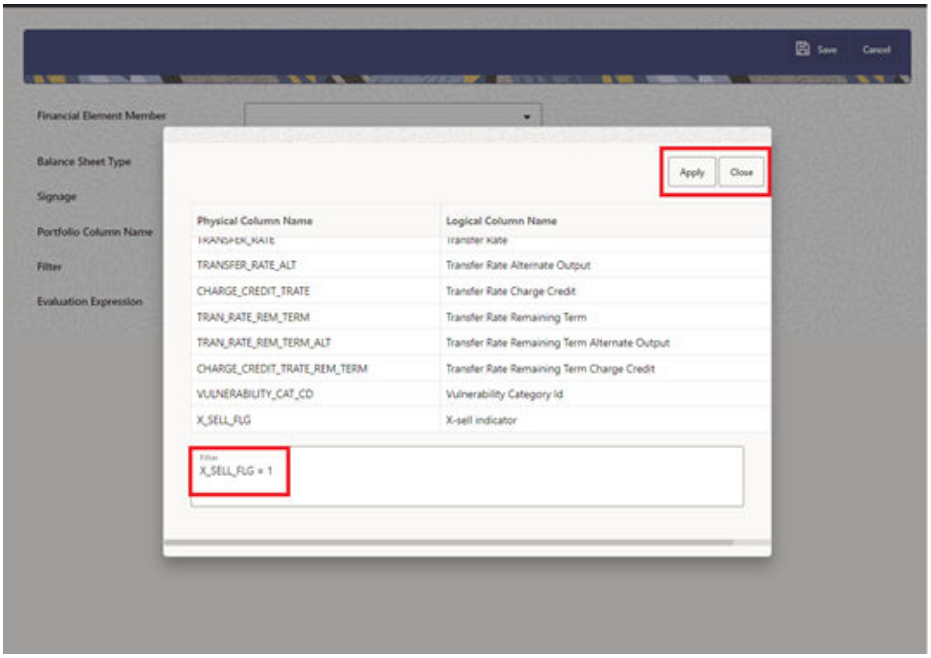
Figure 6-7 Financial Element Mapping – Definition Screen



3. In the **Financial Element Details** section of the screen, the following elements are displayed for the user selection:

   - **Financial Element Member**: This is the drop-down list for Financial Element Member selection.
   - **Balance Sheet Type**: The user can define this mapping either for Asset or Liability or simply not assign a value to apply the mapping to both.
   - **Signage**: The user can assign either a negative or a positive signage to the portfolio column to be used for the mapping definition.
   - **Portfolio Column Name**: The user can pick up the corresponding Portfolio column to be used for the mapping definition and attaching it to the previously selected Financial Element Member.
   - **Filter**: By clicking on the three right hand side dots, the user can select one or more values out of all the portfolio columns and apply filtering to the underlying accounts for this mapping. For example, **X_SELL_FLG = 1**.

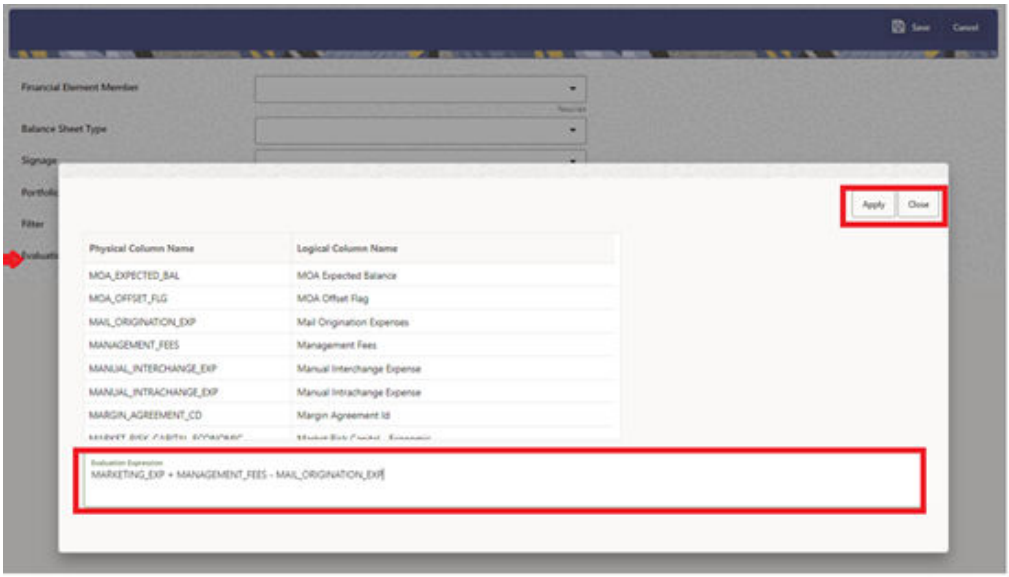
Figure 6-8 Financial Element Mapping – Filter Formula



   - **Evaluation Expression**: By clicking on the three right hand side dots, the user can select one or more portfolio columns to be used to compute a calculation, leveraging math operators as "+", "-", "*", "/" and "%", and apply the resulting

formula to the underlying accounts for this mapping. For example, **MARKETING_EXP + MANAGEMENT_FEES - MAIL_ORIGINATION_EXP**.

Figure 6-9 Financial Element Mapping – Evaluation Expression



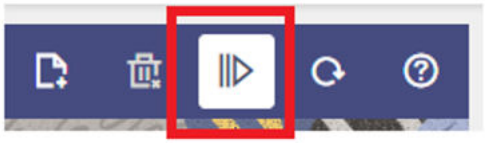
4. Click **Apply**.

6.3.3 Propagate the Mappings

To propagate the mappings, follow these steps:

Click the **Run** button on the top right-hand side as shown below:

Figure 6-10 Propagate the Mappings



6.4 Segmentation Mapping

Segmentation involves the grouping of customer accounts based on different account level dimensions and the specified criteria on them.

Users can select from a set of dimensions to create segments for different Segment types in the Segmentation Mapping UI. Accounts grouped together in a particular segment, are expected to behave, and perform similarly. The objective of segmentation is to achieve easier cross sell and upsell and enhance value the customer drives for the bank.

6.4.1 Navigation in the Summary Screen

When you navigate to the Segmentation Mapping Summary screen, the Segments stored within your current Default Folder are displayed in this screen.

The Segmentation Mapping screen is divided under two sections: the Search section and the Summary table. The title bar of the summary page provides the following actions for the user:

Figure 6-11 Segmentation Mapping Summary Screen - Title Bar

The Action icons are as follows:

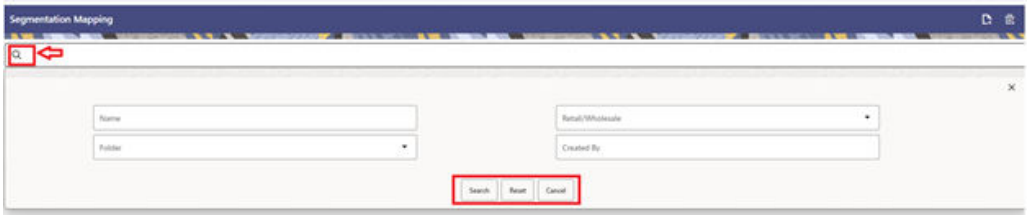
Figure 6-12 Segmentation Mapping Summary Screen - Action Icons

- **Add**: Click the Add icon to create a new Segment. The Add icon is disabled if any of the rows in the summary table are selected.
- **Multiple Delete**: Select one or more Segments in the summary table and click the Delete icon to delete the selected Segments.
- **Refresh**: Click this icon to refresh the summary page.
- **Help**: Click this icon to view the Segmentation Mapping help page.

6.4.1.1 Search

There are two Search options provided to search the Segmentation Mapping on the summary page.

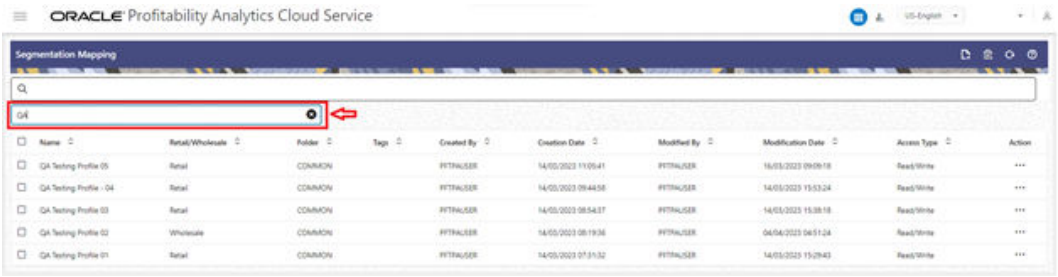
Figure 6-13 Summary Screen Search Option Collapsed



To search the Segmentation Mapping, follow these steps:

1. Click the **Search** icon on the Search pane to collapse (display) the Criteria window.
2. Enter the **Segmentation Mapping Name** and/or **Retail/Wholesale flag** and/or **Folder** and/or **Created By** and click **Search** to display the Segmentation Mapping that matches the criteria.
   The search results are displayed in a table containing all the Segmentation Mappings that meet the search criteria.
3. Click **Reset** to remove the criteria on the Search window and start with new criteria definition.
4. Click **Cancel** to exit from the Search pane and refresh the window.
5. The other method to search a Segmentation Mapping is using the **Field Search** option. The Field Search is an inline wildcard search that allows you to enter value partially or fully and the row that match the entered string in any of the columns is fetched in the Summary table.

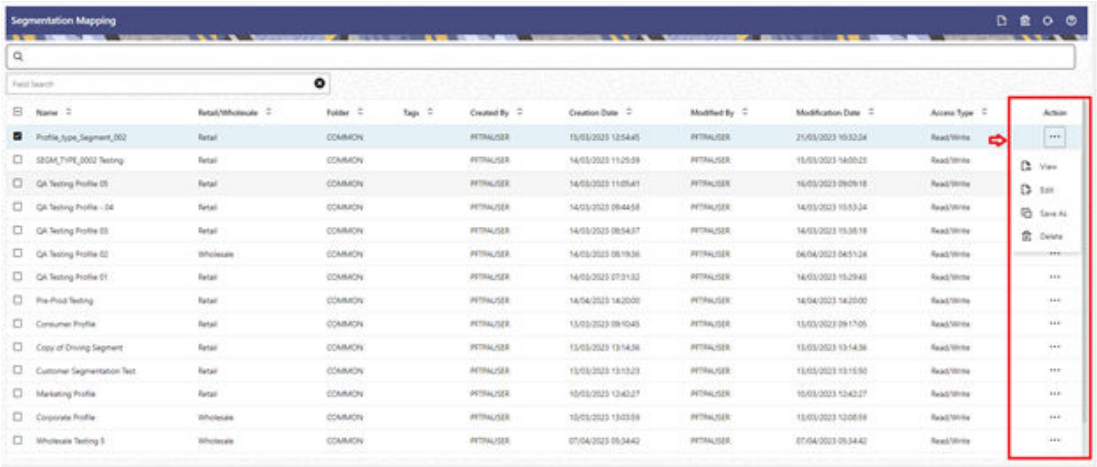
Figure 6-14 Segmentation Mapping- Field Search



6.4.1.2 Segmentation Mapping Summary Table

This section of the screen presents a table containing the already created Segmentation Mappings.

Figure 6-15 Segmentation Summary Table – Action Column



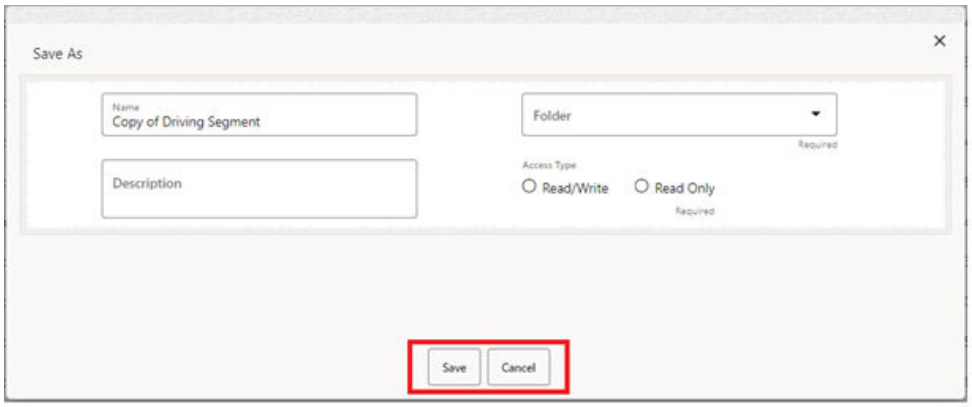
The Segmentation Mapping summary table displays the following details:

- Name
- Retail/Wholesale
- Folder
- Tags
- Created By
- Creation Date
- Modified By
- Modification Date
- Access Type
- Action

The Action column on the Segmentation Mapping summary screen allows you to perform different functions:

- **View**: Click the View icon to view the contents of a Segmentation Mapping on a Read-only basis as the user is launched into the Segmentation Mapping summary screen in view mode.
- **Edit**: Click the Edit icon to modify a previously saved Segmentation Mapping as the user is launched into the Segmentation Mapping Detail screen in edit mode.
- **Save As**: Click on this option to create a copy of an existing Segmentation Mapping. The Save As pop-up window allows you to enter the Name, Description, Folder, and Access Type Details for the copy model.

Figure 6-16 Save As Dialog Box



- **Delete**: Click Delete to delete the Segmentation Mapping you have selected.

6.4.2 Creating a Segmentation Mapping

This procedure describes the steps to create segments, and then map the segments to the segment types as a part of the profitability insight analysis.

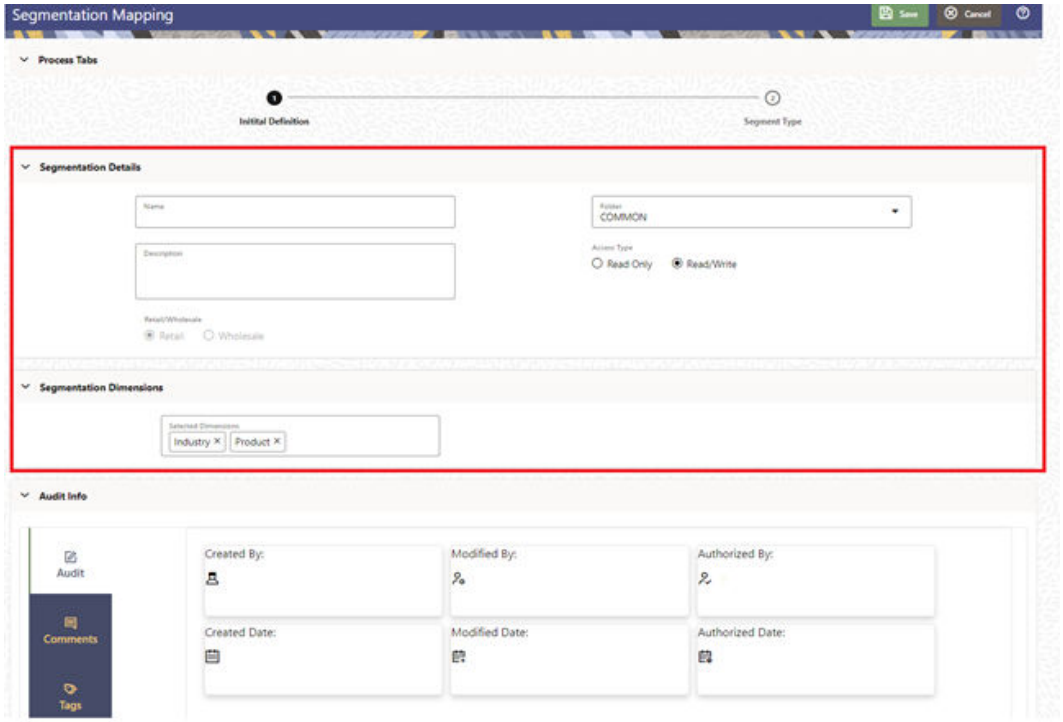
To do the Segmentation Mapping, follow these steps:

1. To open the Segmentation screen, navigate to **Profitability Analytics Cloud**, select **Setup Configurations**, and then select **Segmentation Mapping**.

Figure 6-17 Segmentation Mapping – Add

2. Click **Add** to open the Segmentation Mapping Definition screen.

Figure 6-18 Segmentation Mapping - Add



3. In the **Segmentation Details** section of the screen, enter the following details:
   - **Name**: Name of the segment.
   - **Description**: A description for the segment.

   You can create segments for Retail or Wholesale Customer types. The various details you enter for these customer types may differ.

> **Note:**
>
> If you do not specify the segment Retail or Wholesale, the service will default it to Retail.

4. In the **Segmentation Dimensions** section of the screen, select the relevant **Segmentation Dimension**. The drop-down list displays a list of segments based on which you create different segments within your segment type.
   - **Retail Customer Dimensions**:
     - Age

  - Profession
  - Customer Income
  - Product
  - Net Income Before Taxes
  - Asset Balance
  - Credit Score
  - No. of Transactions
  - Average Transaction Amount
  - Number of Accounts
- **Wholesale Customer Dimensions**:
  - Age of Corporate
  - Industry
  - Customer Income
  - Product
  - Net Income Before Taxes
  - Asset Balance
  - Credit Rating
  - No. of Transactions
  - Average Transaction Amount
  - Number of Accounts

> **Note:**
>
> This is the seeded list as of now and will be open to amendments in the future to accommodate requests from banks to add more dimensions to support relevant use cases.

Figure 6-19 Segmentation Mapping - Segment Type

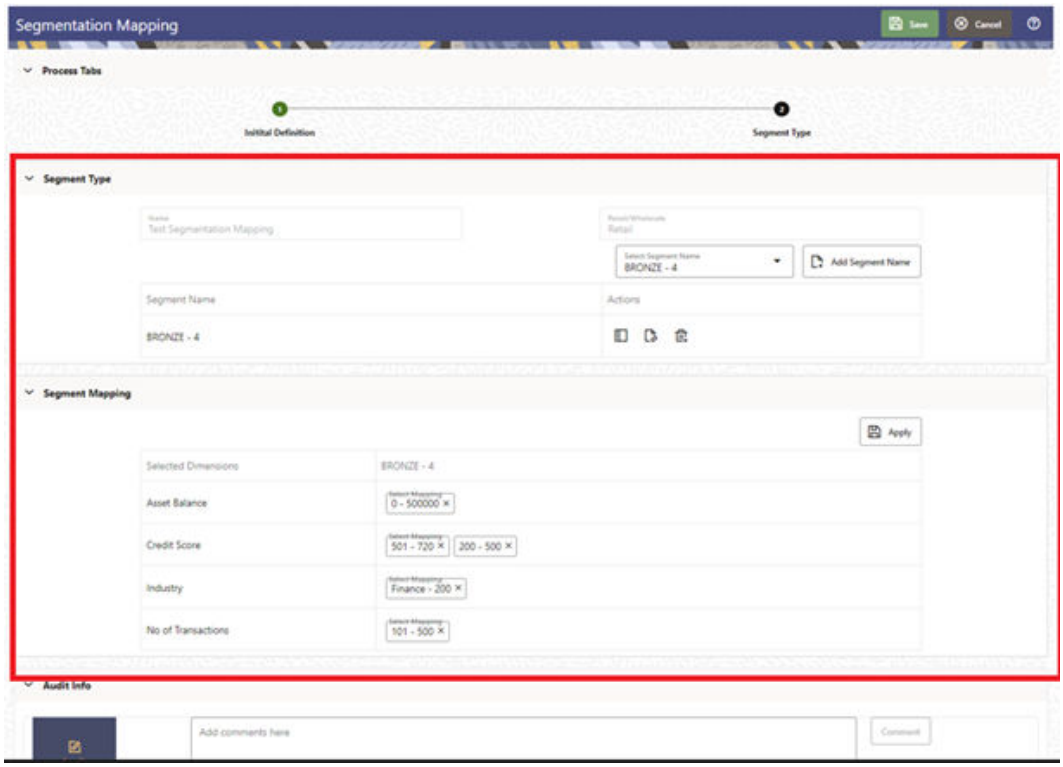
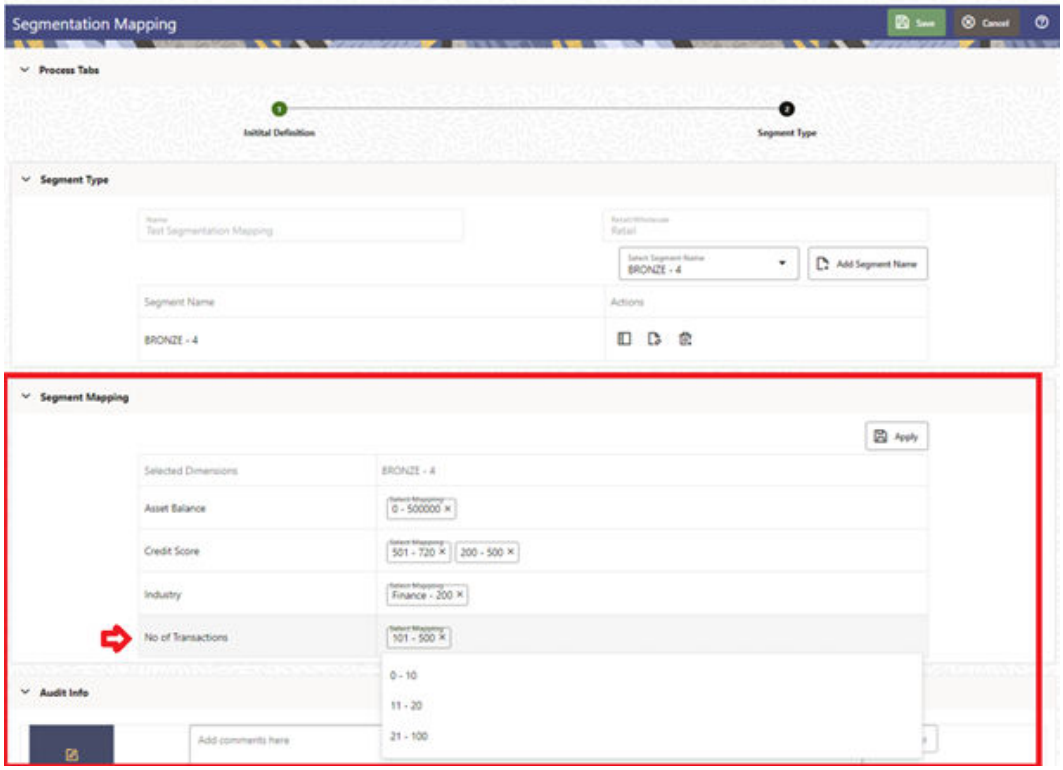
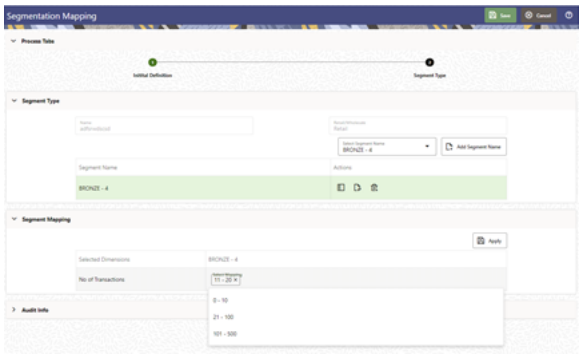


Figure 6-20 Segmentation Mapping - Segment Type



5. Click **Add Segment Name** after selecting your Segment Name. You can select multiple Segment Names and add them to your Segment Name list.
   At this point, the **Actions** menu is activated. You can select to do the following actions to the Segment Name/s you added:
   - View
   - Edit
   - Delete
6. To assign values to the Dimension/s you previously selected, a list of value bands or dimension members, you require to click **Edit** for each of the Segment Names you have added to the list.

Figure 6-21 Segmentation Mapping



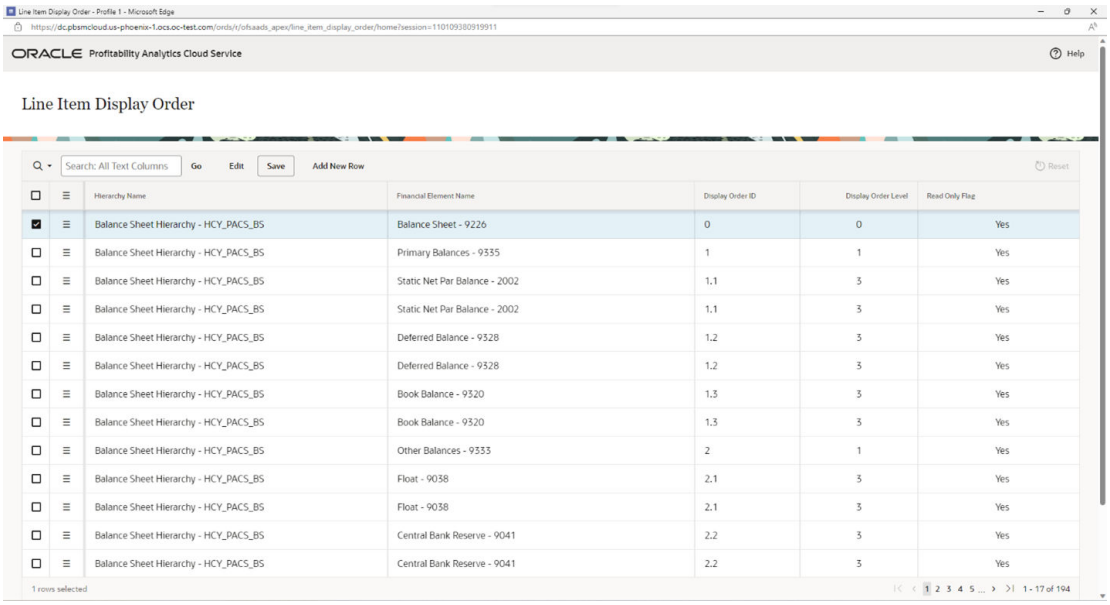
7. Click **Apply**. Repeat the steps for assigning the new Dimension Name values to the other Segments available in your list.
   A confirmation message *Mapping is applied* is displayed.
8. At any point of time, you can edit the Assignment by clicking the **Edit** button on a given Segment.
9. Click **Save**.
   This returns to the Segmentation Mapping screen and the newly added Segmentation Mapping is displayed.

6.5 Line Item Display Order

The Line Item Display Order UI allows the user to customize the display order of the Income Statement line items. This helps users to maintain the display order on the Financial Element hierarchies for both out-of-the-box hieracrchies and custom hierarchies at the BI layer required by Profitability Analytics. This display order holds good for both top-down and bottom-up reporting and enforces a a particular display order for the Income Statement and Balance sheet hierarchies.

To open the Line Item Display Order, from the LHS menu, select **Profitability Analytics Cloud**, select **Setup Configurations**, and then select **Line Item Display Order**.

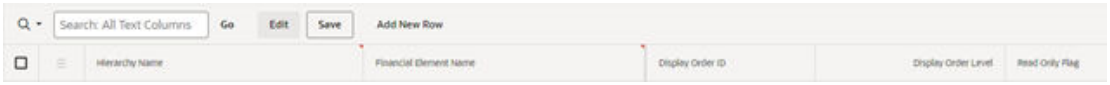
Figure 6-22 Line Item Display Order



The summary screen displays a list and order of parameters that are already available out of the box. You can search an edit the the Line Items with Hierarchy Name, Financial Element Name, Display Order ID, Display Order Level, and Read Only Flag.

You can click on each header to filter the line items and display the items based on a choise.

Figure 6-23 Header Options



For example, you can click **Hierarchy Name** to open a filter where you can select the available options. Then click any or all of the other header names, define the search criteria and then click Go to display the lines items.

You can add a new row to the summary list by clicking **Add New Row**. This inserts a new row in the summary table and allows you to select the Hierarchy Name, Financial Element Name, Display Order ID, Display Order Level, and/or Read Only Flag.

Row Actions

The summary page allows to change the view. You can select a row and click the **Row Actions** that are:

- **Single Row View**: For the rows where Read Only Flag is set to Yes, you cannot edit or revert the changes. However, you view them in Single Row View.

Figure 6-24 Single Row View

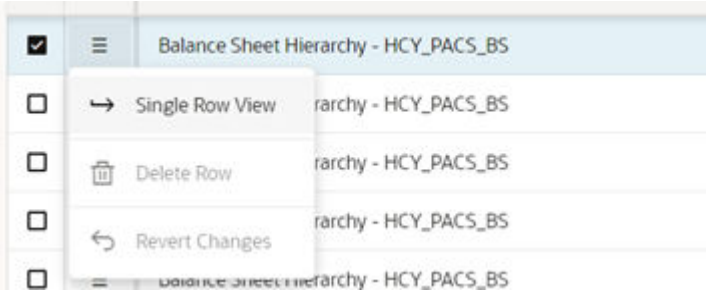
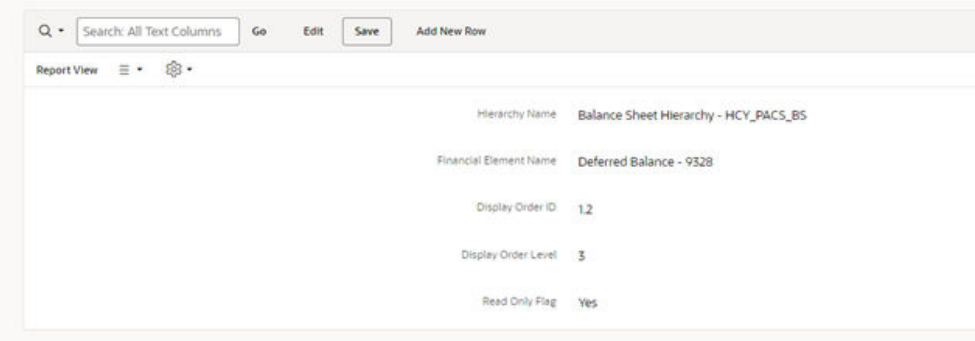


Figure 6-25 Single Row View Details



- **Delete Row**: Is possible only for user-defined line items.
- **Revert Changes**: Is possible only for user-define line items.

Report View – Change Menu

From the Report View – Change Menu, you can add a new row, create a duplicate of an exiting line item, delete a line item, refresh the view, and revert the changes of an existing line item.

Report View – Settings Menu

The Settings Menu allows you to:

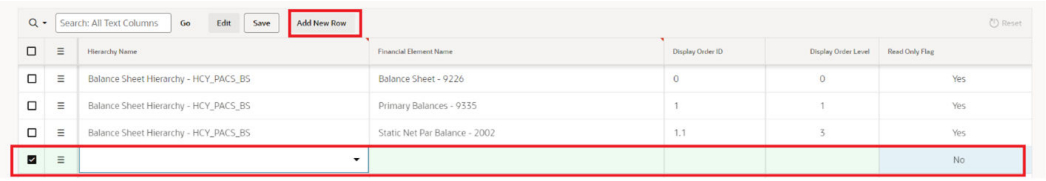
- Exclude the null values from the summary page.
- Displayed Columns

Adding a New Row

To add a new row:

1. Click **Add a New Row** in the summary page.

Figure 6-26 Add a New Row



2. Select of enter the following:
   - **Hierarchy Name** (mandatory): Select a Balance Sheet Hierarchy or Income Statement Hierarchy driver. You can create a Hierarchy and will be able to see on that selection.
   - **Financial Element Name** (mandatory): Enter the name for the Financial Element. You must select only a single value.
   - **Display Order ID**: Enter the Order ID for the Financial Element which you want the Balance Sheet Hierarchy or Income Statement or any other custom hierarchy to be displayed on the Summary screen. For example, refer to the Display Order ID of the seeded hierarchies.
   - **Display Order Level**: Enter the Level for the Financial Element that you want to place in the Balance Sheet and/or Income Statement or any other custom hierarchy. For example, refer to the Display Order Level of the seeded hierarchies.
   - **Read Only Flag**: This is by default Yes for all the seeded hierarchy displayed line item values. For custom line item display orders the default value is always set to No, so that you can always change the custom line items display entries at later stage.
3. Click **Save** to display the new Hierarchy Name in the Summary screen.

6.6 Geography Mapping

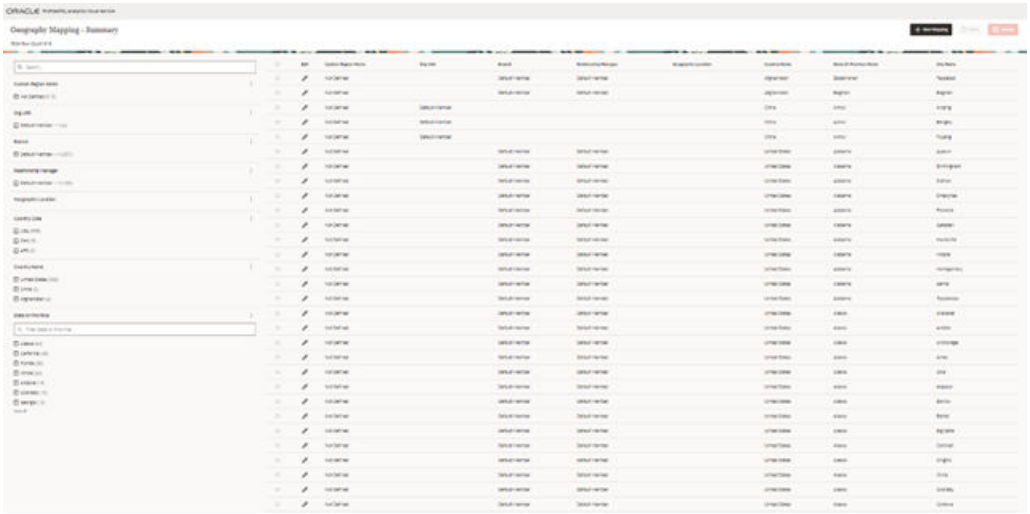
The Geography Mapping UI allows you to render the Org Unit, Branch, Relationship Manager and corresponding Geographic Locations onto the OOTB Business Analytics and account entries.

The Geography information is seeded for your consumption. You can select a geographic location and map it to the key dimensions of the Profitability Analytics Cloud Service.

This section describes the procedure to map the Geographies to key dimensions mentioned above.

To navigate to the Geography Mapping – Summary screen, from the LHS Menu, select **Setup Configurations**, and then select **Geography Mapping**.

Figure 6-27 Geography Mapping - Summary screen



The LHS of the summary screen displays the following elements to be used as selection filters to navigate end user-defined mappings:

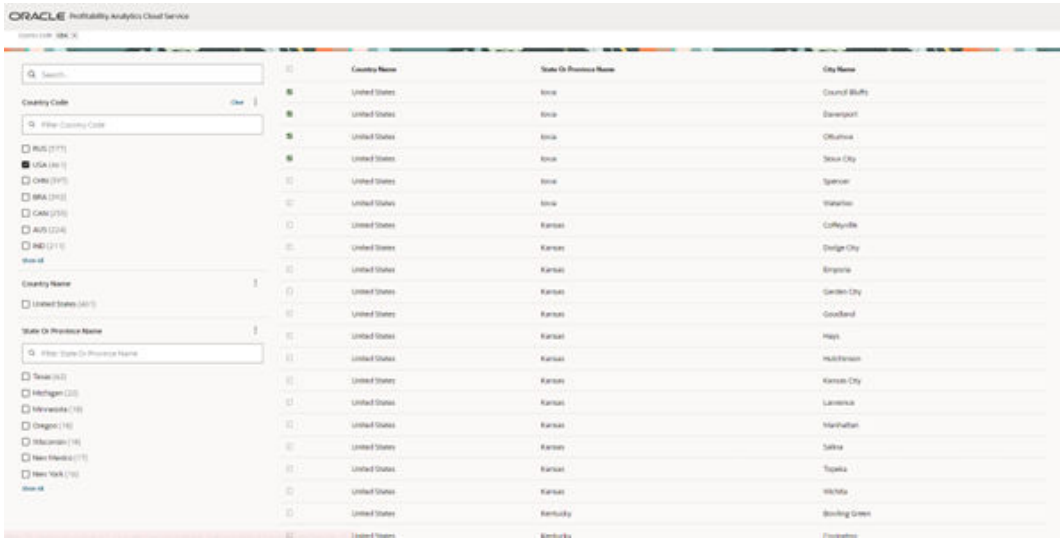
- Customer Region Name
- Org Unit
- Branch
- Relationship Manager
- Geographic Location
- Country Code
- State or Province

Creating a New Mapping

To create a new mapping:

1. Click **New Mapping** on the Summary screen.
   The World Region – New Mapping screen is displayed.

Figure 6-28 World Region - New Mapping



2. Select the relevant **Country Code**.
The summary screen area displays all the cities with the Province and City Names.
3. Select the relevant **County Names** and for mapping.

> **Note:**
>
> You can select few or all the County Names for mapping.

4. Click the **Map** button.
The Mapping pop-up window is displayed.

Figure 6-29 Mapping

5. Select any one or all of the following details:
   - Org Unit
   - Branch
   - Relationship Manager
   - Geographic Location
6. Select the **Customer Region Name**. You can select from the options in the available values or enter a custom Region Name.
7. Click **Map**.
   The newly create mapping details are displayed in the Summary page.

Unmapping a Geography Mapping

To unmap a previous mapped Geography:

1. Navigate to the Geography Mapping – Summary screen.
2. Select any of the following:
   - Custom Region Name
   - Org Unit
   - Branch
   - Relationship Manager
   - Geographic Location
   - Country Code
   - State of Province

   The available mappings are displayed in the screen.
3. Select the mapping that you want to unmap. You can select one or multiple or all the mappings.
4. Click the **Unmap** button.
   After confirming, the selected mapping will be unmapped and removed from the Summary screen.

7
Operations

This chapter covers the following topics:

1. Scheduler Services: The Scheduler Service is a service that automates behind-the-scenes work that is necessary to sustain various enterprise applications and functionalities. This automation helps the applications to control unattended background jobs program execution.
2. Object Migration: Object Migration is the process of defining, exporting and importing objects across environments (prod and non-prod)/instances. This feature also facilitates to migrate within the same setup or different setups.

7.1 Scheduler Services

The Scheduler Service is a service that automates behind-the-scenes work that is necessary to sustain various enterprise applications and their operations. This automation helps the applications to control unattended background jobs program execution.

You can perform the following operations using Scheduler Services utility:

- **Define Batch** - A Batch contains a group of background tasks that are executed together, on a specific date and time during which the resources are available for batch processing.
- **Define Task** - A batch job is a piece of a program meant to meet specific and business-critical functions. The program is a REST API used in a batch.
- **Schedule Batch** - Batch jobs are scheduled to automate the tasks to be processed on a regular basis but don't necessarily need to occur during the day or have an employee interacted with the system are batch schedule. Jobs that happen on a regular basis are incorporated into batch schedules. You can also execute a Batch instantaneously and schedule batches.
- **Monitor Batch** - Track your batch executions using a Web browser. You can access the real-time feedback on the status of the current encoding job and lists the jobs pending in the batch. You can also **Cancel** or **Restart** the service when required.
- **Scheduler Service Dashboard** - The Scheduler Service Dashboard gives the complete status of the Executed Runs, Successful Runs, Failed Runs, Ongoing Runs, Interrupted Runs, and the Upcoming Runs.
- External Scheduler Interface: PBSM Cloud Services allows you to run your batches with an external scheduler.

7.1.1 User Roles and Functions

The following roles and functions are required to use Scheduler Services, and create and manage Batches and tasks, and also use Scheduler Service Dashboard.

Role Codes

- BATCH_READ

- BATCH_WRITE
- BATCH_ADV
- BATCH_AUTH
- BATCH_OPER
- BATCH_MAINT

Function Codes

- BATCH_ADD
- BATCH_DEL
- BATCH_MOD
- BATCH_VIEW
- BATCH_SCH
- BATCH_SUMM
- BATCH_AUTH
- BATCH_PURGE
- BATCH_MON
- BATCH_EXEC
- BATCH_COPY

7.1.2 Accessing Scheduler Services

Using the Scheduler Service feature, you can create and execute batches and schedules to run various tasks and also monitor them.

To access the Scheduler Service feature, from the left Navigation pane in the Service console, click **Operations and Processes > Scheduler**.

7.1.3 Define Batch

A Batch contains a group of background tasks that are executed together, on a specific date and time during which the resources are available for batch processing.

Batch Groups are a set of batches that are required to be execute together. Batch groups help to process Date and time-based background tasks based on a defined period during which the resources were available for Batch Processing.

To access the **Define Batch** page, from the left Navigation pane in the application console, click **Operations and Processes** > **Scheduler** > **Define Batch**.

The **Scheduler Service Summary Page (Define Batch)** with the list of Batches and Batch Groups is displayed. You can view the following details related to each Batch/ Batch Group.

- **Batch ID** - The unique Alphanumeric Code assigned to a specific Batch.
- **Name** - The unique Batch Name.
- **Description** - The brief description of the Batch.
- **Last Modified** - The last modified By User, Date and Time details.

To search for a specific Batch/Batch Group, enter the keywords in the **Search** Field and click **Search**. You can search based on the Batch/Batch group name, code and description. You can also sort the Batch/Batch group list based on Code, Name, Created Date and Last Modified Date.

You can perform the following operations to manage Batch/Batch Groups, from the **Scheduler Service Summary (Define Batch)** page.

- Create New Batch
- Create New Batch Group
- Edit a Batch
- Edit a Batch Group
- Copy a Batch
- Copy a Batch Group
- Delete a Batch
- Delete a Batch Group

7.1.3.1 Creating a Batch

A Batch contains a group of background tasks that are executed together, on a specific date and time, when the resources are available for batch processing.

Refer to the following steps, to create a batch from the **Scheduler Service Summary (Define Batch)** page.

1. To create a new Batch, click the **Action** and click **Create**.

   The **Create Batch Page** is displayed.

   Enter the following **Batch Details** :

   - **Code** - Enter a Unique Alphanumeric Code for the new Batch.
     The Code name always begins with alphabets and should not contain any space. The maximum limit is 60 characters and should not contain any special characters except **Underscore (_)**.
   - **Batch Name** - Enter a unique name for the new batch.
     The Code name always begins with alphabets and should not contain any space. The maximum limit is 60 characters and should not contain any special characters except **Underscore (_)**.
   - **Batch Description** - The description/details for the batch.
     The description should start with alphabet and should not be more than 250 characters.
   - **Service URL Name/ Service URL** - Select the **Service URL Name** from the drop-down list.
     You can also enter the **Service URL Name** and associated URL is displayed in the **Service URL**. You can also provide the partial URL here and the complete URL in the Task Service URL.

2. After entering the Batch Details, provide the following Batch Parameters.

   From the Batch Parameters pane, click **Add** to add a new Batch Parameter.
   By default, **$FICMISDATE$** and **$BATCHRUNID$** are added as Batch Parameters.

   - **Parameter Name** - A valid parameter name for the new Batch parameter.

- **Parameter Value** - A valid Parameter Value required for Batch execution.

> **Note:**
>
> Enclose the Parameter Value for a Run time with $ symbol. For example, $paramName$.

To delete a Batch parameter, click **Delete** next to to that Parameter details.

3. Enter the following **Header Parameter** details.
   - **Parameter Name** - A valid parameter name for the new header parameter.
   - **Parameter Value** - A valid Parameter Value required for Batch execution.
4. Click **Save**. The new Batch is created and displayed in the **Scheduler Services (Define Batch)** Page.

7.1.3.2 Creating a Batch Group

You can create a new Batch Group in the Define Batch Page and schedule and monitor the Batch Group that you created.

To create a new Batch Group, perform the following steps:

1. To create a new Batch, click the **Action** and click **Create**.

   The **Create Batch Page** is displayed.

   Enter the following **Batch Details** :

   - **Code** - Enter a Unique Alphanumeric Code for the new Batch group.
     The Code name always begins with alphabets and should not contain any space. The maximum limit is 60 characters and should not contain any special characters except **Underscore (_)**.
   - **Batch Name** - Enter a unique name for the new batch group.
     The Code name always begins with alphabets and should not contain any space. The maximum limit is 60 characters and should not contain any special characters except **Underscore (_)**.
   - **Batch Description** - The description/details for the batch group.
     The description should start with alphabet and should not be more than 250 characters.
2. Select **Batch Group** option.
3. Select the Batches to be grouped together for processing, from the drop-down list.
4. Click **Save**.

   The new Batch Group is created and added to the **Scheduler Services (Define Batch)** page.

7.1.3.3 Editing a Batch

The **Edit Batch** option allows you to edit the Batch details such as Batch Description, Service URL Name and Service URL and also add a new Batch Parameter.

Seeded batches cannot be edited.

1. In the **Scheduler Services (Define Batch)** Page, click **Edit** corresponding to the Batch you want to modify.

   The Edit Batch Page is displayed.

2. Modify the required **Batch** details.

   For more information, see Create New Batch.

3. Click **Save**.

   The edited batch is saved and displayed in the **Scheduler Services (Define Batch)** Page.

7.1.3.4 Editing a Batch Group

The Edit Batch Group option allows you to edit the Batch Group details such as Batch Group Name, Added Batches, and Batch Group Description.

To modify a Batch Group, perform the following steps:

1. In the **Scheduler Services (Define Batch)** Page, click **Batch Group** option to list the Batch Groups.
2. Click **Edit** corresponding to the Batch Group you want to modify.
3. Modify the required Batch Group details.

   For more information, see Create New Batch Group section.

4. Click **Save**.

   The edited Batch Group is saved and updated in the**Scheduler Services (Define Batch)**.

7.1.3.5 Copying a Batch

The Copy Batch option allows you to copy a Batch that you want to clone or create instances in the system from the Define Batch Window.

To copy a Batch, perform the following steps:

1. In the **Scheduler Services (Define Batch)** Page, click **Copy** corresponding to the Batch that you want to copy.

   The Copy Batch Page is displayed.

2. Specify the Batch details as you want to clone and copy the existing batch.

   For more information, see Create New Batch section.

3. Click **Save**.

   The copied batch is saved and displayed in the **Scheduler Services (Define Batch)** Page.

7.1.3.6 Copying a Batch Group

The Copy Batch group option allows you to copy a Batch group that you want to clone or create instances in the system from the Define Batch Page.

To copy a Batch Group, perform the following steps:

1. In the **Scheduler Services (Define Batch)** Page, click **Copy** corresponding to the Batch group that you want to copy.

   The Copy Batch group Page is displayed.

2. Specify the Batch group details as you want to clone and copy the existing batch group.

   For more information, see Copy a Batch Group section.

3. Click **Save**.

   The copied batch group is saved and displayed in the **Scheduler Services (Define Batch)** Page.

7.1.3.7 Deleting a Batch

The Delete Batch option allows you to delete a Batch that are no longer required in the system from the Define Batch Page.

Seeded batches cannot be deleted.

To delete a Batch, perform the following steps:

1. From the **Scheduler Services (Define Batch)** Page, click **Delete** corresponding to the Batch you want to delete.
2. Click **OK** to confirm deletion.

> **Note:**
>
> If the batch has any active schedules all the associated schedules of the batch are also deleted, after confirmation.

7.1.3.8 Deleting a Batch Group

The Delete Batch group option allows you to delete a Batch group that are no longer required in the system from the Define Batch page.

Seeded batches cannot be deleted.

To delete a Batch Group, perform the following steps:

1. From the **Scheduler Services (Define Batch)** Page, click **Delete** corresponding to the Batch group you want to delete.
2. Click **OK** to confirm deletion.

> **Note:**
>
> If the batch group has any active schedules all the associated schedules of the batch are also deleted, after confirmation.

7.1.4 Define Tasks

The Define Tasks Page provides the list of tasks associated with a specific Batch Definition. You can create new tasks, and edit or delete existing tasks .

To access the **Define Task** page, from the left Navigation pane in the Service console,

1. From the left menu, click **Operations and Processes**.
2. Select **Define Task**, to view the page.
3. Select Batch/Batch Group from the drop-down list and select the particular batch/batch group.
   The list of tasks associated with the specific batch/batch group is displayed. You can view the following details related to each task.
   - Task ID
   - Name
   - Parent Task
   - Component
   - Created Date
   - Last Modified

To search for a specific task, enter the keywords in the **Search** Field and click **Search**. You can search based on the Task Name, code and description. You can also sort the Task list based on Name Precedence, Component, Created Date and Last Modified Date.

You can perform the following operations to manage a Task, from the **Scheduler Service Summary (Define Task)** page.

- Add a task
- Modify a task
- Define a task precedence
- Delete a task

7.1.4.1 Adding a Task

Adding a new task option allows you to add new tasks to a selected Batch Definition.

To add new task, perform the following steps:

1. In the **Scheduler Service (Define Task)** select the Batch for which you want to add new task from the drop-down list.
2. Click **Actions** in page and click **Add**.

   Add Task page is displayed.
3. Enter the details in the Add Task page:
   - **Task Code** - Enter a Unique Alphanumeric Code for the new Task.
     The Code always begins with alphabets and should not contain any space. The maximum limit is 60 characters and should not contain any special characters except **Underscore (_)**.
   - **Task Name** - Enter a unique name for the new batch.
     The task name always begins with alphabets and should not contain any space. The maximum limit is 60 characters and should not contain any special characters except **Underscore (_)**.
   - **Task Description** - The description/details for the batch.

The description should start with alphabet and should not be more than 250 characters. Words like Select From or Delete From should not be entered in the Description.

- **Task Type** - Select the task type from the drop-down list.
- **Batch Service URL** - Select the **Batch Service URL** from the drop-down list. You can also enter the **Task Service URL** and associated URL is displayed in the **Service URL**. You can also provide the partial URL here and the complete URL in the Task Service URL.
- **Task Service URL** - Enter task service URL if it is different from Batch Service URL.

4. From the Task Parameters Pane, by default, all Batch Level Parameters are added and enabled as task parameters.
   a. Enter the Parameter name in the **Param Name** field.
   b. Enter the Parameter value in the **Param Value** field.

   You can delete a parameter by clicking corresponding to the parameter.
5. Click **Save**.

7.1.4.2 Modifying a Task

Modifying Task option allows you to modify the details of existing tasks of a Batch Definition such as Task Description, Task Type, Batch Service URL and Task Service URL.

You can also add a new task parameter and enable or disable already existing task parameters.

To modify a Task, perform the following steps:

1. From the **Define Task** Page, select the Batch to modify the task details, from the drop-down list.
2. Click **Edit** corresponding to the Task to be modified.

   The **Edit Task** Page is displayed.
3. Modify the required Task Details.

   For more information, see Add a task Section.
4. Click **Save**.

7.1.4.3 Define Task Precedence

Task Precedence indicates the execution-flow of a Batch. Task Precedence Value helps to determine the order in which the specific Tasks of a Batch are executed.

For example, consider a Batch consisting of four tasks. The first three tasks does not have a precedence defined and hence will be executed simultaneously, during the Batch Execution. However, Task 4 has a precedence value as Task 1 which indicates that, Task 4 is executed only after Task 1 has been successfully executed.

You can set Task precedence between Tasks or define to run a Task after a set of other tasks. However, multiple tasks can be executed simultaneously, and cyclical execution of tasks is not permitted. If the precedence for a Task is not set, the Task is executed immediately on Batch Execution.

To define the task precedence in the Define Task Page, perform the following steps:

1. Click **Add or Remove Precedence** corresponding to the task for which you want to add precedence task.
   The Task Precedence Mapping Window is displayed.

   > **Note:**
   >
   > The **Task Precedence** option is disabled if a batch has only one task associated.

   a. Select the batch that you want to execute before the current task, from the Available Tasks pane and click **Play**.
   b. To select all the listed batches, click **Move** (Forward arrow).
   c. To remove a batch, select the task from the Selected Tasks Pane and click **Remove** (Backward arrow).
   d. To remove all the selected batches, click **Remove All** (double backward arrow).
2. Click **Save** to update Task Precedence in the batches.
3. Click **Preview** to view the Precedence information.

7.1.4.4 Deleting a Task

You can remove a task from a Batch Definition which are no longer required in the system by deleting it from the Define Task page.

To delete a Task, perform the following steps:

1. From the Define Task Page, select the Batch from the drop-down list.
2. Click **Delete** corresponding to the Task you want to delete.
3. Click **OK** in the confirmation dialog to confirm deletion.

7.1.5 Schedule Batch

The Schedule Batch Page facilitates you to run, schedule, re-start, and re-run the batches in the Scheduler Service. After you upload the data in the required format into the Object Storage, you must load the data into the system using the Scheduler Service. You can schedule them to run in a required pattern and view the Run Time Status of the scheduled services using the Monitor Batch Feature.

To access the **Schedule Batch** page, from the left Navigation pane in the Service console,

1. From the left menu, click **Operations and Processes**.
2. Select **Schedule Batch**, to view the page.
3. Select Batch/Batch Group from the drop-down list and select the particular batch/batch group.
   The list of tasks associated with the specific batch/batch group is displayed. You can view the following details related to each task.

You can perform the following operation for the batch:

- Execute a Batch

- Schedule a Batch - Daily, Weekly, Monthly, and Using Cron expression.
- Re-start a Batch
- Re-run a Batch
- Edit Dynamic Parameters
- Task Definition of a Batch

7.1.5.1 Task Definitions of a Batch

You can modify the Task Definition state in the Batch Execution Page to exclude or hold the defined task in a Batch from execution. The excluded tasks are therefore assumed to have completed execution and get excluded during the Batch Run.

While executing or scheduling a Batch from the Schedule Batch Page, you can:

- Exclude a task or include the excluded task.
- Hold a task or release the held task.

7.1.5.2 Execute a Batch and Batch Group

The Execute Batch option allows you to run a batch instantaneously.

To execute a Batch/Batch Group, perform the following steps:

1. In the **Schedule Batch** page, select Batch or Bath Group to execute, from the drop-down list.
2. Select the Batch /Batch Group Name from the drop-down list. For example, AMLDataLoad.
3. Click **Execute**.

   The **Execution Schedule** Page is displayed.
4. Click **Exclude Tasks**, to add/remove tasks from the execution list..
5. Click **Hold Tasks**, to pause/release tasks during execution..
6. Click **Edit Dynamic Parameters**, to modify the dynamic parameters..
7. Click **Execute**.

   The Batch is executed, and the associated unique execution ID is displayed.
8. Schedule a Batch/Batch Group.

   You can schedule a Batch/Batch Group to run just for Daily, Weekly, and Monthly. for scheduling the batches. You can also have a user defined schedule to schedule and run a batch, Using Cron expression.

7.1.5.3 Schedule Once

To schedule a Batch /Batch Group to run once, perform the following steps:

1. Click **Schedule Batch** from the Header panel.

   The Schedule Batch Page is displayed.
2. In the **Schedule Batch** Page, click **Schedule Once**.
3. Select **Batch or Bath Group** to execute, from the drop-down list.

4. Select the **Batch or Batch Group** Name you want to schedule for once from the drop-down list.
5. Enter a **Schedule Name**.
6. Select the **Start Date** on which you want to run the Batch.
7. Click **Run Time** and select the time at which you want to run the Batch.
8. Click **Schedule**.

7.1.5.4 Daily Batch Scheduling

To schedule a Batch to run daily, perform the following steps:

1. Click **Schedule Batch** from the Header panel. The Schedule Batch Page is displayed.
2. In the Schedule Batch Page, click **Daily** .
3. Select the **Batch /Batch Group Name**.
4. Select the **Batch or Batch Name** you want to schedule daily from the dro-down list.
5. Enter a **Schedule Name**.
6. Select the **Start Date** from which you want to run the Batch.
7. Select the **End Date** till which you want to run the Batch.
8. Select the **Time** at which you want to run the Batch daily.
9. Click **Schedule**.

7.1.5.5 Weekly Batch Scheduling

To schedule a Batch to run weekly, perform the following steps:

1. Click **Schedule Batch** from the Header panel.

   The Schedule Batch Page is displayed.
2. In the Schedule Batch Page, click **Weekly**.
3. Select the Batch /Batch Group Name.
4. Select the **Batch or Batch Name** you want to schedule daily from the drop-down menu.
5. Enter a **Schedule Name**.
6. Select the **Start Date** from which you want to run the Batch.
7. Select the **End Date** till which you want to run the Batch.
8. Select the **Time** at which you want to run the Batch every week.
9. Select the days on a week you want to run the Batch from the **Select Days** of the Week multi-select drop down menu.
10. Click **Schedule**.

7.1.5.6 Monthly Batch Scheduling

To schedule a Batch to run weekly, perform the following steps:

1. In the **Schedule Batch** Page, click **Monthly**.
2. Select the **Batch /Batch Group Name**.

3. Select the **Batch or Batch Name** you want to schedule daily from the drop-down list.
4. Enter a **Schedule Name**.
5. Select the **Start Date** from which you want to run the Batch.
6. Select the **End Date** till which you want to run the Batch.
7. Select the **Time** at which you want to run the Batch every Month.
8. Select the months in a year you want to run the Batch from the **Select Months of the Year** multi-select drop-down list.
9. Select the day of the month that you want to run the Batch from the Select Day of the Month drop down menu.
10. Click **Schedule**.

7.1.5.7 Schedule Cron Expression

To run a Batch in a user-defined schedule, you can have custom schedule with the help of Cron Expression.

A Cron Expression is a string comprised of six or seven fields separated by white space. Fields can contain any of the allowed values, along with various combinations of the allowed special characters for that field. For more information, click the icon next to the Cron Expression field.

To schedule a Batch based on Cron Expression, perform the following steps:

1. In the Schedule Batch Page, click **Cron Expression**.
2. Select the **Batch /Batch Group**.
3. Select the Batch or Batch Group Name you want to schedule from the Select drop down menu.
4. Enter a **Schedule Name**.
5. Enter the **Cron Expression** for your schedule.

   For more information about the Cron Expression, click Information icon next to the Cron Expression field.
6. Click **Schedule**.

7.1.5.8 Re-start a Batch

You can re-start a Batch which has not been executed successfully or which has been explicitly interrupted, or cancelled, or put on hold during the execution process.

By re-starting a Batch, you can continue Batch execution directly from the point of interruption or failure and complete executing the remaining tasks.

To re-start a batch, perform the following steps:

1. Click **Schedule Batch** from the Header panel.

   The Schedule Page is displayed.
2. From the **Schedule** Page, select Re-start tab.
3. Select **Batch /Batch Group**.

4. Select the **Batch or Batch Name** you want to schedule daily from the drop-down list.
5. Select the **Batch Run ID**.
6. Click **Re-start**.

7.1.5.9 Re-run a Batch

You can re-run a Batch which has previously been executed. Re-run Batch facilitates you to run the Batch irrespective of the previous execution state.

A new Batch Run ID is generated during the Re-run process and the Batch is executed as similar to the new Batch Run.

To re-run a batch, perform the following steps:

1. Click **Schedule Batch** from the Header panel.

   The **Schedule Batch** Page is displayed.
2. In the **Schedule Batch** Page, select **Re-run** tab.
3. Select **Batch /Batch Group**.
4. Select the **Batch or Batch group Name** you want to re-run from the Select Name drop down menu.
5. Select the **Batch Run ID**.
6. Click **Re-run**.

7.1.5.10 Edit Dynamic Parameters

Dynamic Parameters facilitate you to modify the dynamic parameters for the batch.

You can change the Param Value from the Edit Dynamic Params Page and save the changes to the Batch. The Edit Dynamic Parameters option is available in all the tab in the Schedule Batch Page.

To edit the dynamic parameters for a batch, perform the following steps:

1. In the **Schedule Batch Page**, click **Edit Dynamic Parameters**.
   The **Edit Dynamic Params** Page is displayed.
2. In the **Edit Dynamic Params** Page, modify the values as required.
3. Click **Save**. The modified parameters are applied to the Batch.

7.1.6 Monitor Batch

The Monitor Batch enables you to view the status of executed Batch along with the tasks details. You can track the issues if any, on regular intervals and ensure smoother Batch Execution. A visual representation as well as tabular view of the status of each Tasks in the Batch is available.

To monitor a batch, perform the following steps:

1. Click **Monitor Batch** from the Header panel.
   The **Monitor Batch Page** is displayed.
2. Select the **Batch/Batch Group** from the drop-down list and then select the **Batch Run ID**.

3. Click **Start Monitor**.
   The results are displayed in **Visualization** and **List View** tabs. Details of these tabs are as follows:

   The **Visualization** tab displays the details in the form of a chart represented with the following details:

   - **Batch Status**: Displays the batch status, the different batch status are NOT-STARTED, ON-GOING, SUCCESSFUL, FAILED, INTERRUPTED, EXCLUDED, HELD, and UNDEFINED.
   - **Batch Start Time**: Displays the Batch Start Time details.
   - **Batch End Time**: Displays the Batch End Time details.
   - **Task Details**: Mouse-over the task to display its status and details.

   The **List View** tab displays the details in a tabular form with the following details:

   - **Batch Status**: Displays the batch status, the different Batch Status are NOT-STARTED, ON-GOING, SUCCESSFUL, FAILED, INTERRUPTED, EXCLUDED, HELD, and UNDEFINED.
   - **Batch Start Time**: Displays the Batch Start Time details.
   - **Batch End Time**: Displays the Batch End Time details.
   - **Task Details**: Mouse-over the task to display its status and details.
   - **More Information**: The message returned by the Rest Service.

   Select **Stop Monitor**, to stop monitoring. You can also specify the Start and Stop Monitor options along with refresh interval in the Refresh every second and minute fields.

   You can also setup auto refresh to automatically update the status based on the set **Refresh Interval** and **Duration**. At any point, click **Stop Monitor** to stop the auto refresh.

   - By default, the refresh interval is set to **5 seconds** and duration is set to **5 minutes**.
   - The refresh interval ranges between 5 to 60 seconds.
   - The duration ranges between 5 to 180 seconds.

4. To restart the Batch /Batch Group, select **Restart**.
5. To rerun the Batch/Batch Group, select **Rerun**.
6. To interrupt the Batch /Batch Group, select **Stop**.
7. In the Log Viewer pop-up the log information is displayed. You can click the **Download** icon to download the log or click the **Close** icon to close the log information.

7.1.7 Scheduler Service Dashboard

You can view and monitor the complete status of the Executed Runs, Successful Runs, Failed Runs, Ongoing Runs, Interrupted Runs, and the Upcoming Runs, from the Scheduler Service Dashboard.

To access the **Scheduler Service Dashboard** page, from the left Navigation pane in the Service console, click **Operations and Processes** > **Scheduler** > **Dashboard**.

The Scheduler Service Dashboard with the following details is displayed.

- The Executed Runs, Successful Runs, Failed Runs, Ongoing Runs, Interrupted Runs, and Upcoming Runs tabs. You can click the tabs to view the details of the Batches based on their status. For example, click **Ongoing Runs** to view the details of the batches that are currently running.
- The Batches that were executed within the last 7 or 30 days contain details such as Batch Name, Batch Run ID, and Run Time. Click 30 days to view the batches that were executed within the last 30 days. You can click the icon corresponding to a Batch to monitor it.
- The Batch Execution Summary Pane displays the count of total batches executed that were executed within the last 7 days, 30 days, and 120 days. You can also view the separate count of successful batches, failed batches, interrupted batches, on-going batches, and the batches which are yet to start, by hovering your mouse the batches.

7.1.8 External Scheduler Interface

External scheduler interface help you to execute PBSM tasks using any Command line utility such as cURL commands. You won't require the application interface to execute the PBSM tasks.

You can also integrate the Batches with external schedulers, using the external Scheduler interface.

Related Topics

- Rest API Status Codes
  Refer to the following table for Rest API Status codes and their description.
- Execution API
  The Execution (POST) API triggers a batch or a batch group.
- Execution Status API
  The Execution Status (POST) API provides the current run status of batch/batch group execution.
- Interrupt API
  The Execution Status (POST) API Interrupts a batch/batch group execution.
- Restart API
  The Restart (POST) API restarts a batch/batch group execution.
- Rerun API
  The Rerun (POST) API helps to rerun a batch/batch group execution.

7.1.8.1 Rest API Status Codes

Refer to the following table for Rest API Status codes and their description.

Table 7-1 Status Codes

Status Code	Description
0	Success
-1	Failure
-2	Interrupted
1	Not Started

Table 7-1 (Cont.) Status Codes

Status Code	Description
2	Ongoing
3	Aborted
4	Excluded
5	Held
-3	Object does not exist
-4	Invalid arguments passed in request/not enough params in Request body
-5	Invalid request headers/request headers missing
-6	No executable job is present.
-7	Job is already interrupted
-8	Job is not ongoing/aborted

7.1.8.2 Execution API

The Execution (POST) API triggers a batch or a batch group.

- **HTTP Method** - POST
- **URL** - `/SchedulerService/rest-api/v1/external/trigger`
- **Header Parameters**
  - **ofs_tenant_id** - Tenant ID of the Application
  - **ofs_service_id** - Service ID of the Application
  - **ofs_workspace_id** - Workspace ID of the Application. It is defaulted to “WS001” and same should be passed each time.
  - **ofs_remote_user** - Used ID of the user. This parameter should be mapped to `'BATCH_EXEC'` function.
  - **locale** - locale in `languageCode-countryCode` format. For example, `en-US`.
  - **Authorization: Bearer <token>** - Access token required to authenticate the API. If this token is not provided, `401 Unauthorized error` is generated. For more information about Bearer token, refer to Generate the Access Token.
- **Sample cURL Command**

```
curl -i -H "ofs_service_id:<Service ID>" -H "ofs_remote_user:<User
ID>" -H
      "ofs_tenant_id:<Tenant ID>" -H "ofs_workspace_id:WS001" -H
"locale:en-US" -H
      "Content-Type: application/json" -H "Authorization: Bearer
<BEARER_TOKEN>" -X POST
      <APPLICATION_BASE_PATH>/<URL> -d '<REQUEST_JSON>'
```

Related Topics

- Batch Execution API
  Use the Execution API to trigger a batch.

- Batch Group Execution API
  Use the Execution API to trigger a batch group.

7.1.8.2.1 Batch Execution API

Use the Execution API to trigger a batch.

Attributes

- `batchName` - The unique batch code
- `batchType` - The object type. For Batch, the batch type should be set to `rest`.
- `dynamicParamList` - List of run time parameters which should be overridden over actual values for this trigger. This is an optional parameter.

Request Body

```
{
    "batchName": "<Batch_code>",
    "batchType": "rest",
    "dynamicParamList": {
        "batchParams": {
            "$FICMISDATE$": "<MISDate(yyyy-mm-dd)>"
    }
     }
}
```

Sample Response Body

The following Response body is a sample for `Success : 200 OK`. For more information about status code in the response body, refer to Rest API Status Codes.

```
{
    "severity": "info",
    "summary": "Object triggered successfully with Run Id:
B2001_2022-05-20_1653041947296_1",
    "batchRunId": "B2001_2022-05-20_1653041947296_1",
    "details": "Object triggered successfully.",
    "statusCode": "0",
    "status": "success"
}
```

7.1.8.2.2 Batch Group Execution API

Use the Execution API to trigger a batch group.

- **Attributes**
  - `batchName` - The unique batch code
  - `batchType` - The object type. For Batchgroup, the batch type should be set to `group`.
  - `dynamicParamList` - List of run time parameters which should be overridden over actual values for this trigger. This is an optional parameter.

Request Body

```
{
    "batchName": "<Batch_group_code>",
    "batchType": "group",
    "dynamicParamList": [
        {
            "batchName": "MIS_BATCH001",
            "batchParams": {
                "$FICMISDATE$": "2022-10-23"
            }
        },
        {
            "batchName": "MIS_BATCH002",
            "batchParams": {
                "$FICMISDATE$": "2022-10-28"
            }
        }
    ]
}
```

Sample Response Body

The following Response body is a sample for `Success : 200 OK`. For more information about status code in the response body, refer to Rest API Status Codes.

```
{
    "severity": "info",
    "summary": "Object triggered successfully with Run Id:
B2001_2022-05-20_1653041947296_1",
    "batchRunId": "B2001_2022-05-20_1653041947296_1",
    "details": "Object triggered successfully.",
    "statusCode": "0",
    "status": "success"
}
```

7.1.8.3 Execution Status API

The Execution Status (POST) API provides the current run status of batch/batch group execution.

- **HTTP Method** - POST
- **URL** - `/SchedulerService/rest-api/v1/external/status`
- **Header Parameters**
  - **ofs_tenant_id** - Tenant ID of the Application
  - **ofs_service_id** - Service ID of the Application
  - **ofs_workspace_id** - Workspace ID of the Application. It is defaulted to “WS001” and same should be passed each time.
  - **ofs_remote_user** - Used ID of the user. This parameter should be mapped to `'BATCH_EXEC'` function.

- **locale** - locale in `languageCode-countryCode` format. For example, `en-US`.
- **Authorization: Bearer <token>** - Access token required to authenticate the API. If this token is not provided, `401 Unauthorized error` is generated. For more information about Bearer token, refer to Generate the Access Token.

- **Sample cURL Command**

```
curl -i -H "ofs_service_id:<Service ID>" -H "ofs_remote_user:<User ID>" -H
      "ofs_tenant_id:<Tenant ID>" -H "ofs_workspace_id:WS001" -H
"locale:en-US" -H
      "Content-Type: application/json" -H "Authorization: Bearer
<BEARER_TOKEN>" -X POST
      <APPLICATION_BASE_PATH>/<URL> -d '<REQUEST_JSON>'
```

Related Topics

- Batch Execution Status API
  Use the Execution Status API to view the current run status of a batch execution.
- Batch Group Execution Status API
  Use the Execution Status API to view the current run status of a batch group execution.

7.1.8.3.1 Batch Execution Status API

Use the Execution Status API to view the current run status of a batch execution.

Attributes

- `batchRunId` - Execution Id generated while triggering the object and can be obtained in the response of Execution API.
- `tasks` - List of Task Codes. This is an optional parameter.

Request Body

```
{
    "batchRunId": "<Batchrun_ID>",
    "tasks":["<task_code>","<task_code>"]
}
```

Sample Response Body

The following Response body is a sample for `Success : 200 OK`. For more information about status code in the response body, refer to Rest API Status Codes.

```
{
    "severity": "info",
    "batchRunId": "BatchTEST1_2022-05-31_1653994545003_1",
    "taskStatusList": [
        {
            "taskCode": "t1",
            "taskStatus": "SUCCESSFUL",
            "statusCode": "0"
        },
        {
```

```
            "taskCode": "t5",
            "taskStatus": "FAILED",
            "statusCode": "-1"
        }
    ],
    "batchStatusCode": "-1",
    "batchList": [],
    "batchStatus": "FAILED",
    "status": "success",
    "statusCode": "0"
}
```

7.1.8.3.2 Batch Group Execution Status API

Use the Execution Status API to view the current run status of a batch group execution.

Attributes

- `batchRunId` - Execution Id generated while triggering the object and can be obtained in the response of Execution API.
- `tasks` - List of Task Codes. This is an optional parameter.

Request Body

```
{
    "batchRunId": "<Batchrun_ID>",
    "tasks":["<task_code>","<task_code>"]
}
```

Sample Response Body

The following Response body is a sample for `Success : 200 OK`. For more information about status code in the response body, refer to Rest API Status Codes.

```
{
    "severity": "info",
    "batchRunId": "AbTestBG001_2023-01-27_1674798339245_1",
    "batchStatusCode": "0",
    "batchList": [
        {
            "batchRunId": "AbTestBatch002_2023-01-27_1674798339462_1",
            "batchStatusCode": "0",
            "batchStatus": "SUCCESSFUL"
        },
        {
            "batchRunId": "AbTestBatch003_2023-01-27_1674798339556_1",
            "batchStatusCode": "0",
            "batchStatus": "SUCCESSFUL"
        }
    ],
    "batchStatus": "SUCCESSFUL",
    "status": "success",
```

```
    "statusCode": "0"
}
```

7.1.8.4 Interrupt API

The Execution Status (POST) API Interrupts a batch/batch group execution.

- **HTTP Method** - POST
- **URL** - `/SchedulerService/rest-api/v1/external/interrupt`
- **Header Parameters**
  - **ofs_tenant_id** - Tenant ID of the Application
  - **ofs_service_id** - Service ID of the Application
  - **ofs_workspace_id** - Workspace ID of the Application. It is defaulted to “WS001” and same should be passed each time.
  - **ofs_remote_user** - Used ID of the user. This parameter should be mapped to `'BATCH_EXEC'` function.
  - **locale** - locale in `languageCode-countryCode` format. For example, `en-US`.
  - **Authorization: Bearer <token>** - Access token required to authenticate the API. If this token is not provided, `401 Unauthorized error` is generated. For more information about Bearer token, refer to Generate the Access Token.
- **Sample cURL Command**

```
curl -i -H "ofs_service_id:<Service ID>" -H "ofs_remote_user:<User ID>" -H
      "ofs_tenant_id:<Tenant ID>" -H "ofs_workspace_id:WS001" -H
"locale:en-US" -H
      "Content-Type: application/json" -H "Authorization: Bearer
<BEARER_TOKEN>" -X POST
      <APPLICATION_BASE_PATH>/<URL> -d '<REQUEST_JSON>'
```

Related Topics

- Batch Interrupt API
  Use the Interrupt API to interrupt a batch execution.
- Batch Group Interrupt API
  Use the Interrupt API to interrupt a batch group execution.

7.1.8.4.1 Batch Interrupt API

Use the Interrupt API to interrupt a batch execution.

Attributes

- `batchName` - The unique batch code
- `batchRunID` - Execution Id generated while triggering the object and can be obtained in the response of Execution API.

Request Body

```
{
    "batchName": "<Batch_code>",
```

```
    "batchRunId": "<Batchrun_ID>"
}
```

Sample Response Body

The following Response body is a sample for `Success : 200 OK`. For more information about status code in the response body, refer to Rest API Status Codes.

```
{
    "summary": "Execution interrupted successfully for Run Id:
B2001_2022-05-30_1653233511394_1",
    "severity": "info",
    "batchRunId": "B2001_2022-05-30_1653233511394_1",
    "details": "Execution interrupted successfully.",
    "statusCode": "0",
    "status": "success"
}
```

7.1.8.4.2 Batch Group Interrupt API

Use the Interrupt API to interrupt a batch group execution.

Attributes

- `batchName` - The unique batch code
- `batchRunID` - Execution Id generated while triggering the object and can be obtained in the response of Execution API.

Request Body

```
{
    "batchName": "<Batchgroup_code>",
    "batchRunId": "<Batchrun_ID>"
}
```

Sample Response Body

The following Response body is a sample for `Success : 200 OK`. For more information about status code in the response body, refer to Rest API Status Codes.

```
{
    "summary": "Execution interrupted successfully for Run Id:
B2001_2022-05-30_1653233511394_1",
    "severity": "info",
    "batchRunId": "B2001_2022-05-30_1653233511394_1",
    "details": "Execution interrupted successfully.",
    "statusCode": "0",
    "status": "success"
}
```

7.1.8.5 Restart API

The Restart (POST) API restarts a batch/batch group execution.

- **HTTP Method** - POST
- **URL** - `/SchedulerService/rest-api/v1/external/restart`
- **Header Parameters**
  - **ofs_tenant_id** - Tenant ID of the Application
  - **ofs_service_id** - Service ID of the Application
  - **ofs_workspace_id** - Workspace ID of the Application. It is defaulted to “WS001” and same should be passed each time.
  - **ofs_remote_user** - Used ID of the user. This parameter should be mapped to `'BATCH_EXEC'` function.
  - **locale** - locale in `languageCode-countryCode` format. For example, `en-US`.
  - **Authorization: Bearer <token>** - Access token required to authenticate the API. If this token is not provided, `401 Unauthorized error` is generated. For more information about Bearer token, refer to Generate the Access Token.
- **Sample cURL Command**

```
curl -i -H "ofs_service_id:<Service ID>" -H "ofs_remote_user:<User ID>" -H
      "ofs_tenant_id:<Tenant ID>" -H "ofs_workspace_id:WS001" -H
"locale:en-US" -H
      "Content-Type: application/json" -H "Authorization: Bearer
<BEARER_TOKEN>" -X POST
      <APPLICATION_BASE_PATH>/<URL> -d '<REQUEST_JSON>'
```

Related Topics

- Batch Restart API
  Use the Restart API to restart a batch execution.
- Batch Group Restart API
  Use the Restart API to restart a batch group execution.

7.1.8.5.1 Batch Restart API

Use the Restart API to restart a batch execution.

Attributes

- `batchName` - The unique batch code
- `batchRunID` - Execution Id generated while triggering the object and can be obtained in the response of Execution API.

Request Body

```
{
    "batchName": "<Batch_code>",
    "batchRunId": "<Batchrun_ID>"
}
```

Sample Response Body

The following Response body is a sample for `Success : 200 OK`. For more information about status code in the response body, refer to Rest API Status Codes.

```
{
    "severity": "info",
    "summary": "Object triggered successfully for restart with Run Id:
B0001_2022-04-30_1651731208588_1",
    "batchRunId": "B0001_2022-04-30_1651731208588_1",
    "details": "Object triggered successfully.",
    "statusCode": "0",
    "status": "success"
}
```

7.1.8.5.2 Batch Group Restart API

Use the Restart API to restart a batch group execution.

Attributes

- `batchName` - The unique batch code
- `batchRunID` - Execution Id generated while triggering the object and can be obtained in the response of Execution API.

Request Body

```
{
    "batchName": "<Batchgroup_code>",
    "batchRunId": "<Batchrun_ID>"
}
```

Sample Response Body

The following Response body is a sample for `Success : 200 OK`. For more information about status code in the response body, refer to Rest API Status Codes.

```
{
    "severity": "info",
    "summary": "Object triggered successfully for restart with Run Id:
B0001_2022-04-30_1651731208588_1",
    "batchRunId": "B0001_2022-04-30_1651731208588_1",
    "details": "Object triggered successfully.",
    "statusCode": "0",
    "status": "success"
}
```

7.1.8.6 Rerun API

The Rerun (POST) API helps to rerun a batch/batch group execution.

- **HTTP Method** - POST

- **URL** - `/SchedulerService/rest-api/v1/external/rerun`
- **Header Parameters**
  - **ofs_tenant_id** - Tenant ID of the Application
  - **ofs_service_id** - Service ID of the Application
  - **ofs_workspace_id** - Workspace ID of the Application. It is defaulted to “WS001” and same should be passed each time.
  - **ofs_remote_user** - Used ID of the user. This parameter should be mapped to `'BATCH_EXEC'` function.
  - **locale** - locale in `languageCode-countryCode` format. For example, `en-US`.
  - **Authorization: Bearer <token>** - Access token required to authenticate the API. If this token is not provided, `401 Unauthorized error` is generated. For more information about Bearer token, refer to Generate the Access Token.
- **Sample cURL Command**

```
curl -i -H "ofs_service_id:<Service ID>" -H "ofs_remote_user:<User ID>" -H
      "ofs_tenant_id:<Tenant ID>" -H "ofs_workspace_id:WS001" -H
"locale:en-US" -H
      "Content-Type: application/json" -H "Authorization: Bearer
<BEARER_TOKEN>" -X POST
      <APPLICATION_BASE_PATH>/<URL> -d '<REQUEST_JSON>'
```

Related Topics

- Batch Rerun API
  Use the Rerun API to rerun an existing batch execution.
- Batch Group Rerun API
  Use the Rerun API to rerun an existing batch group execution.

7.1.8.6.1 Batch Rerun API

Use the Rerun API to rerun an existing batch execution.

Attributes

- `batchName` - The unique batch code
- `batchRunID` - Execution Id generated while triggering the object and can be obtained in the response of Execution API.

Request Body

```
{
    "batchName": "<Batch_code>",
    "batchRunId": "<Batchrun_ID>"
}
```

Sample Response Body

The following Response body is a sample for `Success : 200 OK`. For more information about status code in the response body, refer to Rest API Status Codes.

```
Success Scenario: 200 OK
{
    "severity": "info",
    "summary": "Object triggered successfully for rerun with Run Id:
B2001_2022-05-30_1653223084727_1",
    "batchRunId": "B2001_2022-05-30_1653223084727_1",
    "details": "Object triggered successfully.",
    "statusCode": "0",
    "status": "success"
}
```

7.1.8.6.2 Batch Group Rerun API

Use the Rerun API to rerun an existing batch group execution.

Attributes

- `batchName` - The unique batch code
- `batchRunID` - Execution Id generated while triggering the object and can be obtained in the response of Execution API.

Request Body

```
{
    "batchName": "<Batchgroup_code>",
    "batchRunId": "<Batchrun_ID>"
}
```

Sample Response Body

The following Response body is a sample for `Success : 200 OK`. For more information about status code in the response body, refer to Rest API Status Codes.

```
Success Scenario: 200 OK
{
    "severity": "info",
    "summary": "Object triggered successfully for rerun with Run Id:
B2001_2022-05-30_1653223084727_1",
    "batchRunId": "B2001_2022-05-30_1653223084727_1",
    "details": "Object triggered successfully.",
    "statusCode": "0",
    "status": "success"
}
```

7.2 Object Migration

Object Migration is the process of define, export and import objects across environments (prod and non-prod)/instances. This feature also facilitates to migrate within the same setup or different setups.

Objects refer to the various metadata definitions defined for various domains. You may want to migrate objects for several reasons such as manage global deployments on multiple environments or to create multiple environments so that you can separate the development, testing, and production processes.

For example, you can use the object migration feature to define PMF process object such as balance computation on your testing environment. After successful testing, you can use this feature to export the object to production/non-production environment.

You can migrate the following object types:

- **Schedule** - Schedule provides the instruction to schedule the execution of defined processes. When a schedule is migrated, the associated batch is also migrated.
- **Batch** - Batch is a group of jobs that are scheduled to automatically execute at a preset interval of time, without any user's intervention. When a batch is migrated, the batch and the associated pipeline information are also migrated.
- **Batch_Group** - A set of individual batches are consolidated to form a single Batch_Group. When we migrate a Batch_Group all the batches, tasks and pipeline information associated with that Batch_Group are also migrated.
- **Pipeline** - A pipeline is an embedded data processing engine that runs inside the application to filter, transform, and migrate data on-the-fly. Pipelines are a set of data processing elements called widgets connected in series, where the output of one widget is the input to the next element.
- **Threshold** - The threshold limit associated with set variables values for scenarios in FCCM Cloud Service. These threshold values are set when scenarios are created or installed and can be changed, if required.
- **Job** - Jobs provide set of instructions to execute Workflow Pipelines, based on the set threshold values.
- **Roles** - Roles are used to map functions to a defined set of groups to ensure user access system security.
- **Groups** - Groups are used to map Roles. Specific User Groups can perform only set of functions associated with that group.
- **CM_ADMIN** - The CM_ADMIN object type refers to all the case management related admin screens. Under this object type, you can export case management related admin metadata and settings for Business Domain, Case Actions/Statuses, Case Priority, Case Rules, Case System Parameters, Case Types, Jurisdictions and Security Mapping.

7.2.1 Migration Object Types

You can create Object Export and Import definitions for the following object types using Object Export/Import feature.

The Migration object types are categorized as follows:

Asset Liability Management

- Standardized_IRRBB_Shock
- Static_Deterministic_Process
- Time Bucket

Business Assumptions

- Behaviour_Pattern_Rule
- Discount_Methods
- Forecast_Rates
- Prepayment Model
- Prepayment_Rule
- Transferring_Price_Rules

Cash Flow Edits

- Cash_Flow_Edits_Rules
- Cash_Flow_Edits

Cash Flow Engine

- Cashflow_Process

Common Objects

- Batch
- Batch_Group
- Currency
- Datamodel_Extension_Dimension
- Data_File_Specification
- Dimensions

> **Note:**
>
> Dimension definitions should be migrated before migrating the dependent object definitions. The source and the target dimension of the dependent objects should be the same.

- Expressions
- Filters
- Folder
- Hierarchy

> **Note:**
>
> Dimension definitions should be migrated before migrating the Hierarchy associated with it. The Dimension should be the same in both source and target environments.

- Holiday_Calendar
- Job
- Pipeline
- Schedule

- Slowly Changing Dimensions

Funds Transfer Pricing

- Add-on Rate Rule
- Alternate_Rate_Output_Mapping
- Replicating Portfolio
- Standard_Process

Identity Management

- **Groups** - For more information, refer to Groups Summary in Admin Console.
- **Roles** - For more information, refer to Roles Summary in Admin Console

Patterns

- Behaviour Pattern
- Payment Pattern
- Reprice Pattern

Profitability Management

- Allocation Model
- Lookup Table
- Allocation Specification
- Static_Table

Rate Management

- Interest_Rates
- Economic_Indicator
- Volatility_Surface

7.2.2 Accessing Object Export and Object Import Features

Using the Object Export and Import features, you can create Export and Import Object definitions.

To access the Object Export and Import feature, from the left Navigation pane in the PBSM Console, click **Operations and Processes > Object Administration**.

- To access Object Export feature, click **Export Object**.
- To access Object Import feature, click **Import Object**.

7.2.3 Object Export Definitions

Object Export Definition is a collection of objects that can be exported across environments.

You can view the list of object export definitions that are already created in the **Object Export Summary**. You can also view the following details about each object definition.

- **Name** - The unique name assigned to the collection when the export definition was created.

- **Object Migration Status** - The export status of a specific object definition.
  - **Success** - Indicates that the export is completed successfully.
  - **Failed** - Indicates that the export was not successful. You can reintiate the migration of the specific object definition.
  - **Saved** - Indicates that the object definition is created successfully and is yet to be exported.
  - **In Progress** -Indicates that the export is in progress. Once the export is complete, the status will change to Success/Failed.
- **Last Modified By** - The ID of the Last Modified by user who has modified the definition.
  On mouse over, the Last Modified Time and Date are displayed.

To filter the list and view specific Object Definition, use one of the following search options:

- To search for a specific Export Object Definition, type the first few letters of the export definition that you want to search in the Search Box and click **Search**. The search results display the names that consist of your search string in the list of available definitions.
- Enter the number of records to be viewed in a single page, in the **Records** box, at the bottom of the page. You can increase or decrease the number of entries that are displayed using the up and down arrows.
- You can navigate between pages in the **View** bar, use the navigation buttons present at the bottom of the page.

7.2.3.1 Creating Export Definitions

You can create export Meta data objects using the System Configuration tab in Admin Console.

For more information about the supported object types, refer to Migration Object Types. Refer to the following steps, to create a migration export object.

1. Click **Add** in the **Object Export Summary** Page to view the **Migration Definition** page.
2. Enter the following details, in the **Migration Definition** page.
   - **Migration Name**: Enter the code of the export of objects to be migrated definition. This is a unique identifier.
   - **File Name**: The system auto-creates the file name of the objects that can be used to export the definition in the following format:
     - **For Business Objects**: Migration Name_BO_Time Stamp (MMDDYYY HHMMSS)
     - **For Identity Objects:** Migration Name_IDM_Time Stamp (MMDDYYY HHMMYY)
3. Click **Apply** to save the details and view the **Object Selection** Page.
4. Click **Add** to include Migration objects to the definition.
5. select the required **Object Type** from the Object Types drop-down list.

6. Select the objects to be added to the Migrate Definition and click **Save**, to create a new migration object.

   A confirmation message is displayed, when the definition is saved successfully. The new migration definition is listed in the Object Export Summary Page and the status is set to **Saved**.

   You can also click **Export**, to export the object.

7.2.3.2 Editing Export Object Definitions

You can edit the Export Object definitions that are not exported and their status is **Saved** or **Failed**.

If the definitions is already exported and the status is set to **Success**, you cannot edit that definition.

To edit an Export Object definition, follow these steps.

1. In the Object Export Summary page, highlight the definition and click **Menu**, and select **Edit**.

   The **Object Selection** page is displayed.

2. Modify the following details, if required, and click **Save** to changes.
   - Select the required **Object Type** from the Object Types drop-down list.
   - Select the objects to be added to/deleted from the definition.
3. After adding/deleting all the required objects, click **Save**.

   The Export definition is saved successfully and a confirmation message is displayed. The new definition is listed in the Object Export Summary page and the status is set to **Saved**.
4. If you want to Save and Export the Definition, click **Export**.

7.2.3.3 Exporting Object Definition

After creating the object definitions, you can export them for migrating between environments, using Object Migration (Export) feature.

You can export object definitions in **Saved** or **Failed** state from the object Summary page.Refer to the following steps, to export definitions.

1. In the Object Summary Page, highlight the migration definition and click **Menu**.
2. Select **Export** from the menu.

   After you export, the following Export status types are displayed:
   - **Success** - Indicates that the definition is exported successfully.
   - **Failed** - Indicates that the definition was not exported. Right-click and select **Export**, to reintiate the export process.
   - **In Progress** -Indicates that the export is in progress. Once the export is completed, the status will change to Success/Failed.

7.2.3.4 Viewing Export Object Details

Using the **View** option, you can view the list of objects and the dependancies added to an Object definition. You can also view the object details.

1. Highlight the Export definition and click **Menu**.
2. Select **View**. The object types, list of objects and the dependent objects added to the export definition are listed in the left pane.
3. Double-click an object to view the object attribute details.

7.2.3.5 View Object Definition Export Log Details

View log facilitates you to view the export log information of the object definition with the migration status.

> **Note:**
>
> The View Log page for an object definition with status **Saved** will be empty.

To view the log details of object with migration status **Success** or **Failed**, follow these steps.

1. In the Object Export Summary page, mouseover the object definition and click **Menu**.
2. Select **View Log** from the drop-down menu, to access the **View Log** page.

   The migration status of the objects with following details is displayed.

   - **Object Migration ID** - The migration ID associated with the definition.
   - **Object Type** - The object type of the definition.
   - **Object Code** - The object code associated with the definition.
   - **Creation Date** - The date of creation of the definition.
   - **Created By** - The User Id of the User who created the definition.
   - **Status** - The migration status of the definition.
     - **Success** - Indicates that the export migration was completed successfully.
     - **Failed** - Indicates that the export migration did not complete.
     - **Export Status Message** - The complete export status message.

     > **Note:**
     >
     > Export status message currently not supported for GL reconcilation.

3. Click **OK** to close the page, after viewing the log details.

7.2.3.6 Downloading Dump File

You can download the export dump file for exported definitions to a local directory, using Download Dump file option.

The downloaded export dump file can be used to upload objects to a different environment.

> **Note:**
>
> This option is enabled, only if the definition is exported successfully and the **Migration Status** is set to **Success**.

To download a export dump file, refer to the following procedure.

1. Mouseover a migrated object and select **Menu**.
2. Select **Download Dump File** from the drop-down menu, to download the associated dump file and store it to the local directory.

7.2.3.7 Deleting Export Object Definition

You can delete only definitions that are set to **Saved** or **Failed** status.

To delete a export object definition, follow these steps.

1. In the Object Export Summary page, mouseover the definition to be deleted and click **Delete** .
2. Click **Yes** to confirm and proceed with the deletion.

7.2.4 Object Import Definitions

Object Import Definitions is a collection of objects that can be imported across environments. .

You can view the list of Object Import Definitions that are already created in the **Object Import Summary**. You can also view the following details about each Object definition.

- **Name** - The unique name assigned to the collection when the Import definition was created.
- **Object Migration Status** - The import status of a specific Object definition.
  - **Success** - Indicates that the import is completed successfully.
  - **Failed** - Indicates that the import was not successful. You can reintiate the migration of theSpecific Object Definition.
  - **Saved** - Indicates that the Object Definition is created successfully and is yet to be imported.
  - **In Progress** -Indicates that the import is in progress. Once the import is complete, the status will change to Success/Failed.
- **Last Modified By** - The ID of the Last Modified by user who has modified the definition. On mouse over, the Last Modified Time and Date are displayed.

To filter the list and view Specific Object Definition, use one of the following search options.

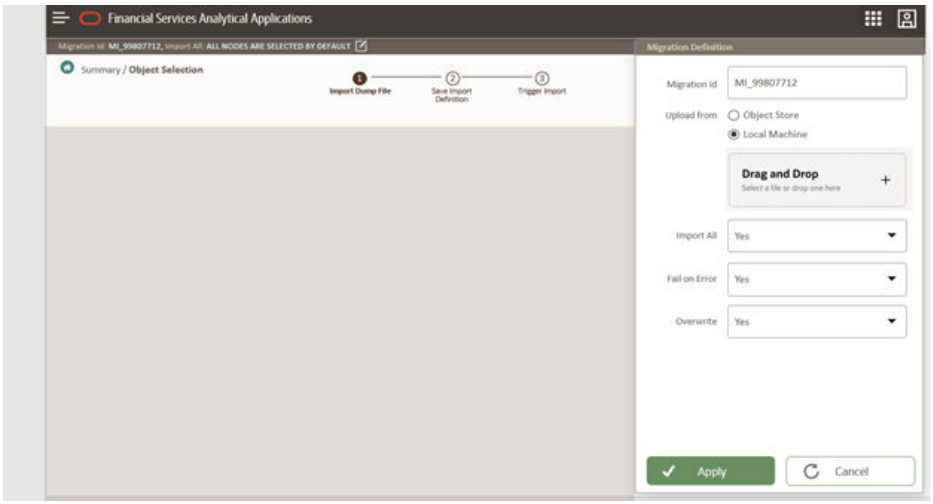
- To search for a Specific Import Object definition, type the first few letters of the Import definition that you want to search in the Search box and click **Search**. The search results display the names that consist of your search string in the list of available definitions.
- Enter the number of records to be viewed in a single page, in the **Records** box, at the bottom of the page. You can increase or decrease the number of entries that are displayed using the up and down arrows.
- You can navigate between pages in the **View** bar, use the navigation buttons present at the bottom of the page.

7.2.4.1 Creating Object Import Definitions

You can create Import definitions and add Import Objects using the Object Migration (Import) feature.

1. Click **Add** in the **Object Import Summary** page to view the **Migration Definition** page.
2. Enter the following details, in the **Migration Definition** page.
   - **ID** - The Unique Name for the New Import Object definition.
     The migration ID should not contain any space and exceed 30 characters. Underscore (_) and hyphen (-) are allowed.
   - **Dump File** -Select the .DMP file to be uploaded for creating the Import definition.

Figure 7-1 Importing Dump File



You can select the dump file using one of the following options:

- Select the option **Object Store**, to select the dump file (.DMP file) from the list of dump files available in the same environment.
- Select the option **Local Machine** and click **Drag and Drop**, to add a .DMP file, from the local directory. You can only Add Dump file that are downloaded using Download Dump file option.

> **Note:**
>
> - Uploading a dmp file either created or edited locally will generate an error.
> - You can rename the .DMP file, if required. Ensure to follow the naming convention. For more information, refer toFile Naming Conventions for Migrate Objects.

- **Import All** - Select an option to import the objects that are associated with the selected object type. You can edit this option if required, in the **Object Selection** page.
  - **Yes** - Imports all the objects that are included in the dump file.
  - **No** - Imports only those objects that you can select in the **Object Selection** page.
- **Fail on Error** - Select an option to proceed with the definition creation in case of an error. You can edit this option if required, in the **Object Selection** page.
  - **Yes** - Stops the creation process, if error is generated.
  - **No** - Creates the import definition even when error is generated. The object with the error is not included in the object creation.
- **Overwrite** - Select an option to overwrite the existing definition. You can edit this option if required, in the **Object Selection** page.
  - **Yes** - Replaces the existing Import definition.
  - **No** - Creates a new Import definition.

3. Click **Apply** to save the details.

   The Import definition is created and **Object Selection** page is displayed. You can add objects to this import definition.
4. Click **Add** to include objects to the definition.
5. Select the required **Object Type** from the Object Types drop-down list.

   Objects that are defined in the environment with respect to the selected object type are are listed. For example, if Schedule is selected as the Object Type, all the Objects defined with respect to Schedule, in the environment are only listed.

   You can also enter the first few letters of the object name in the Search Field, to narrow down the search.
6. Click the check box adjacent to each object, to include the objects associated with a specific object type, to the import definition.
7. Repeat steps 4, 5 and 6, to include objects associated with various object types.
8. After adding all the required objects, click **Save**.

   The Import definition is saved successfully and a confirmation message is displayed. The new definition is listed in the Object Import Summary page and the status is set to **Saved**.
9. If you want to Save and Export the Definition, click **Import**.

7.2.4.2 Editing Import Definitions

You can edit the Import definitions that are not imported and their status is **Saved** or **Failed**.

If the definitions is already imported and the status is set to **Success**, you cannot edit that definition.

To edit an Import definition, follow these steps.

1. In the Object Import Summary page, highlight the definition and click **Menu**, and select **Edit**.

   The **Object Selection** page is displayed.
2. Edit the following details, if required, and click **Save** to changes.
   - Select the required **Object Type** from the Object Types drop-down list.
   - Select the objects to be added to/deleted from the definition.
3. After adding/deleting all the required objects, click **Save**.

   The import definition is saved successfully and a confirmation message is displayed. The new definition is listed in the Object Import Summary page and the status is set to **Saved**.
4. Click **Save** to update the changes.
5. If you want to Save and import the Definition, click **Import**.

7.2.4.3 Importing Object Definitions

After creating the object definitions, you can export them for migrating between environments, using Object Migration (Import) feature.

You can import object definitions in **Edited** state from the object Summary page. Refer to the following steps to import Object definitions.

> **Note:**

1. In the Object Summary Page, mouse-over the definition and click **Menu**.
2. Select **Import** from the drop-down menu.

   After you import, the following Import status types are displayed:
   - **Success** - Indicates that the definition is imported successfully.
   - **Failed** - Indicates that the definition was not imported. Right-click and select **Import**, to restart the import process.
   - **In Progress** -Indicates that the import is in progress. Once the import is completed, the status will change to Success/Failed.

   In case the migration fails, refer to Troubleshooting Object Migration.

Note:

- If a Change Request import fails, then it is recommended not to use the action created for it in the target (if any), otherwise subsequent re-import requests might fail.
- Approve the Change Request and publish, after it is imported successfully.
- After the import of segment extension
  - Creates an Issue with same name as Export Name (Issue name – “Issue – Exportname”) captured with current start and target date with 30 days ahead.
  - Creates an Action with same name as Export Name (Action name- “Action – Exportname”) captured with current start and target date with 30 days ahead.
  - Select all Dimensions exported. And action will be in submitted status.
  - After Import, Issue and action owner has to be reassigned accordingly for Approval process.

7.2.4.4 Viewing Import Object Details

Using the **View** option, you can view the list of objects and the dependancies added to an Object definition. You can also view the object details.

1. Mouseover the migration definition and click **Menu**.
2. Select **View**. The object types, list of objects and the dependent objects added to the export definition are listed in the left pane.
3. Double-click an object to view the object attribute details.

7.2.4.5 Viewing Object Import Log Details

View log facilitates you to view the log information of the object definition with the migration status.

Note:

The View Log page for a definition with migration status **Saved** will be empty.

To view the log details of definition with migration status **Success** or **Failed**, follow these steps.

1. In the Object Import Summary window, mouseover the migration definition and click **Menu**.
2. Select **View Log** from the drop-down menu, to access the **View Log** page.

   The migration status with following details is displayed.

   - **Object Migration ID** - The migration ID associated with the import object.
   - **Object Type** - The object type of the import object.

- **Object Code** - The object code associated with the import object.
- **Creation Date** - The date of creation of the import object.
- **Created By** - The User Id of the User who created the import object.
- **Status** - The import status of the specific object.
  - **Success** - Indicates that the specific object was imported successfully.
  - **Failed** - Indicates that the specific object was not imported.
- **Import Status Message** - The complete import status message.

> **Note:**
>
> Import status message currently not supported for GL reconcilation.

3. Click **OK** to close the page, after viewing the log details.

7.2.4.6 Deleting Import Definition

You can delete only definitions that are set to **Saved** or **Failed** status.

To delete an import definition, follow these steps.

1. In the Object Import Summary page, mouseover the definition to be deleted and click **Delete** .
2. Click **Yes** to confirm and proceed with the deletion.

8
Technical Documents

This chapter covers the following topics:

8.1 Run Chart

Run Chart allows to understand the sequence of tasks to be performed to ensure valid Data Flow in the product. It contains the details about Data Loading for all mandatory tables for the product and the sequence of execution of Seeded Tasks or Batches.

For the Profitability Analytics Cloud Service Run Chart, see the Doc ID: 2869409.1 under the Profitability Analytics Cloud Service Technical Documents header.

8.2 Data Flow

Data Flow is a visual representation of the Run Chart. It allows to understand the sequence of tasks including functional and logical processing steps at a high level.

For downloading the Profitability Analytics Cloud Service Data Flow, see the Doc ID: 2869409.1 under Profitability Analytics Cloud Service Technical Documents header.

8.3 Data Loader

The Data Loader service allows the user to load the customer information required by the Profitability Analytics Cloud Service to enrich the demographics at the account-level. In this service, first you upload the data, and then run a batch to propagate the data into the processing layer.

To load the data:

1. Navigate to **Profitability Management Cloud Service**. From the LHS menu, select **Data Management Tools**, select **Data File Administration**, and then select **File upload and download** to display the File Upload/Download screen.
   The File Upload/Download screen displays the list of files that are uploaded to the Object Store and displays the following details for each file:
   - **File ID**: The unique file id. This is auto generated during upload.
   - **Prefix**: The prefix added to the file name.
   - **File Name**: The name of the uploaded file.
   - **Stripe Name**: The unique identifier for storing the files.
   - **Uploaded Date**: The file upload date.
   - **Download File**: Click the Download icon to download a copy of the file.

- **Delete**: Click Delete to delete the uploaded file.

2. Click **Drag and Drop** to browse and select a file for upload from the local directory. You can also browse to the local directory from the File Explorer and select file and drop it here.

   The File Upload/Download service supports upload of TXT, DAT, and CSV format files.

   Name of the data file must follow the format as given below:

   - A prefix as **input_yyyymmdd** where the date format is related to the As of Date of Interest (i.e., 02-May-2023 becomes 20230502).
   - As per the data that you want to upload, upload the relevant data file from the table:

   Table 8-1 Data File

Data	Suffix	Data File Name
Customer Master	_STG_CUSTOMER_MASTER.dat	input_20230502_STG_CUSTOMER_MASTER.dat
Customer Group Hierarchy	_STG_CUSTOMER_HIERARCHY.dat	input_20230502_STG_CUSTOMER_HIERARCHY.dat

   > **Note:**
   >
   > The file name is case-sensitive.

   For more information about File Upload and Download, see File Upload and Download.

   The following are the sample files for reference:

   – input_YYYYMMDD_STG_CUSTOMER_MASTER.dat
   – input_YYYYMMDD_STG_CUSTOMER_HIER.dat

3. After selecting the file to upload, click **Upload**.
   The UI displays a confirmation message *Upload successful*.
4. From the LHS menu, navigate to **Operations and Processes**, select **Scheduler**, and then select **Schedule Batch**.
5. Select the relevant seeded **Batch**:

   Table 8-2 Batch Name

Data	Batch Name
Customer Master	BT-LOAD-CUSTOMER-MASTER
Customer Group Hierarchy	BT-LOAD-CUSTOMER_HIER

6. Click **Edit Parameters**. In the Dynamic Parameters pop-up window, change the date to the relevant As-of-Date, and then save the batch.
7. From the LHS menu, navigate to **Operations and Processes**, select **Scheduler**, and then select **Execute Batch**.

8. From the LHS menu, navigate to **Operations and Processes**, select **Scheduler**, and then select **Monitor Batch**.
9. Select the **Batch** and then select the **MISDATE** and the **Batch name**. There may be multiple executions of the Data Loader batch. Select the latest execution and click **Start Monitor**.
   The UI displays the status of the batch.

For more details about Scheduler processes, see the following links:

- Schedule Batch
- Monitor Batch