

Auto Categorization of Spend Transactions Guide  
Oracle Banking APIs  
Release 22.2.0.0.0

Part No. F72988-01

November 2022

**ORACLE®**

Auto Categorization of Spend Transactions Guide  
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# 1. Preface

## 1.1 Intended Audience

This document is intended for the following audience:

- Customers
- Partners

## 1.2 Documentation Accessibility

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

## 1.3 Access to Oracle Support

Oracle customers 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.

## 1.4 Structure

This manual is organized into the following categories:

Preface gives information on the intended audience. It also describes the overall structure of the User Manual.

The subsequent chapters describes following details:

- Introduction
- Preferences & Database
- Configuration / Installation.

## 1.5 Related Information Sources

For more information on Oracle Banking APIs Release 22.2.0.0.0, refer to the following documents:

- Oracle Banking APIs Installation Manuals
- Oracle Banking APIs Licensing Guide

## 2. Auto Categorization Of Spend Transactions

### Scenario:

If a Spend transaction description contains keyword "Big Bazaar" then that transaction should get auto-categorized as follows:

Category --> Shopping

Subcategory --> Groceries

### Maintenance steps:

1. Create a Category and a Subcategory as required after login as an Admin user.
2. Note the CATEGORY\_ID column value of the newly created Category & Subcategory from the table DIGX\_SP\_SPEND\_CATEGORY (Eg: 10 and 101 respectively).
3. Insert a row in table DIGX\_RL\_SPEND as below (Note the ID column value which is '10001' in this example).

Sample script:

```
insert into DIGX_RL_SPEND (ID, CREATED_BY, CREATION_DATE,
LAST_UPDATED_BY, LAST_UPDATED_DATE, OBJECT_STATUS,
OBJECT_VERSION_NUMBER, NAME, DESCRIPTION, DETERMINANT_VALUE)
values ('10001', '', sysdate , '', sysdate , '', 1, 'SpendRule',
'SpendDTODesc', 'OBDX_BU');
```

4. Insert a row in table DIGX\_RL\_CONDITION as below:
  - a. ID as any unique value
  - b. RULE\_ID as provided in the DIGX\_RL\_SPEND table above
  - c. EXPRESSION\_OBJECT value should contain the keyword as follows:

```
utl_raw.cast_to_raw('{
"@class" :
"com.ofss.digx.app.common.dto.rule.SpendCategorizationExpressionFactValueDTO",
"keyword" : "Big Bazaar"
})
```
  - d. OUTCOME\_OBJECT value should contain the corresponding Category & Subcategory ID as follows (Subcategory is NOT mandatory):

```
utl_raw.cast_to_raw('{
"@class" :
"com.ofss.digx.app.common.dto.rule.SpendCategorizationOutcomeFactValueDTO",
"category" : "10",
"subCategory" : "101"
})
```
  - e. OPERATOR value should be 'CONTAINS' (No other operators are supported out of the box)

Sample script:

```
insert into DIGX_RL_CONDITION (ID, RULE_ID, OPERATOR,
OUTCOME_OBJECT, EXPRESSION_OBJECT, CREATED_BY, CREATION_DATE,
```

```

LAST_UPDATED_BY, LAST_UPDATED_DATE, OBJECT_STATUS,
OBJECT_VERSION_NUMBER, DETERMINANT_VALUE)

values ('103', '10001', 'CONTAINS', utl_raw.cast_to_raw('{

"@class" :
"com.ofss.digx.app.common.dto.rule.SpendCategorizationOutcomeFactV
alueDTO",

"category" : "10",

"subCategory" : "101"

}')), utl_raw.cast_to_raw('{

"@class" :
"com.ofss.digx.app.common.dto.rule.SpendCategorizationExpressionFa
ctValueDTO",

"keyword" : "Big Bazaar"

}')), '', null, '', null, '', 1, 'OBDX_BU');

```

5. Insert such rows in table DIGX\_RL\_CONDITION for each keyword & Category-Subcategory combination as required by the Bank.
6. Verify the following properties (select \* from DIGX\_FW\_CONFIG\_ALL\_B where category\_id = 'ruleconfig');
  - a. IS\_RULE\_EVALUATION\_REQUIRED --> Y
  - b. SPEND\_EVALUATOR --> com.ofss.digx.app.spendanalysis.ruleengine.evaluator.SpendRuleEvaluator (out of the box Spend rule evaluator)
  - c. SPEND\_RULE\_NAME --> SpendRule (As per the value of NAME column in DIGX\_RL\_SPEND table)

### 3. Categorization Of Spend Transactions Using ML Engine

ML Engine will do the auto categorization on user spend expenditure. It will auto map the category base on transaction description. If in case category does not exist in the system, then first it will create it and then map it to the transaction.

To activate the ML engine call, we have to set “**Configuration of ML call for Spend transaction categorization**” flag as **Y**. If in case, we don't set this value then by default ML engine service is in inactive state.

We can be able to update the flag with the help of “**System configuration**” screen with Admin Type Role.

The screenshot shows the Oracle System Configuration interface for the 'SPEND' configuration. The 'Configuration of ML call for Spend transaction categorization' flag is set to 'Y'. Other visible configurations include Duration of Active Program in days (1000), OBTF Entity Id (47AFFTF1), OBVAM Entity Id (DEFAULTENTITY), TRADE WALKIN CUSTOMER ID (001045), OBCLPM IP (10.40.73.152), Liquidity Management Qualified (Y/N) (Y), Rewards Host port (<PORT>), OBVAM Transaction Default Currency (GBP), OBSCFPM Host IP address (100.76.157.113), Live Experience Host IP (live.oraclecloud.com), Headers for OBSCF token (applId:SECSRV001,branchCode:004,content-type:application/json), Host Server Port for Oracle Financial Lending and Leasing (7003), LM Charge Inquiry Max Period (30), OBTF Entity Id (DEFAULTENTITY), Host Server IP for Oracle FLEXCUBE Universal Banking (whf00mie.in.oracle.com), Headers for OBSCM token (applId:SECSRV001,branchCode:004,content-type:application/json), and Supported Auth Type for OBSCFPM App Id - Fetch (FCLTYP).

Duration of Active Program in days	1000	Liquidity Management Qualified (Y/N)	Y
OBTF Entity Id	47AFFTF1	Rewards Host port	<PORT>
OBVAM Entity Id	DEFAULTENTITY	OBVAM Transaction Default Currency	GBP
TRADE WALKIN CUSTOMER ID	001045	OBSCFPM Host IP address	100.76.157.113
OBCLPM IP	10.40.73.152	Live Experience Host IP	live.oraclecloud.com
Configuration of ML call for Spend transaction categorization	Y	Headers for OBSCF token	applId:SECSRV001,branchCode:004,content-type:application/json
Corporate User Supported Auth Type	OTP-R_SOFT_TOKEN-T_SOFT_TOKEN-SEC_QUEUE-PUS	Host Server Port for Oracle Financial Lending and Leasing	7003
Oracle Live Experience Cloud User ID		LM Charge Inquiry Max Period	30
Host WSDL Version	124	OBTF Entity Id	DEFAULTENTITY
Amount criteria partial card insight	2000	Host Server IP for Oracle FLEXCUBE Universal Banking	whf00mie.in.oracle.com
OBSCFPM App Id - Read Collateral Application	CLLTRL	Headers for OBSCM token	applId:SECSRV001,branchCode:004,content-type:application/json
Supported Auth Type for OBSCFPM App Id - Fetch	OTP-R_SOFT_TOKEN-T_SOFT_TOKEN-SEC_QUEUE-PUS		
		Supported Auth Type for OBSCFPM App Id - Fetch	FCLTYP

Below entry are required to activate ML engine interface call.

```
Insert into DIGX_FW_CONFIG_ALL_O
(PROP_ID,PREFERENCE_NAME,PROP_VALUE,DETERMINANT_VALUE,CREATED_BY,CREATION_DATE,
LAST_UPDATED_BY,LAST_UPDATED_DATE) values
('<<ENTITY_ID>>.com.ofss.digx.extxface.spendanalysis.adapter.transaction.ISpendUncategorizedTransactionAdapter.getSpendTransactionCategory','ExtxfaceAdapterPreference','com.ofss.digx.extxface.spendanalysis.impl.SpendDDATransactionAdapter','01','ofssuser',to_timestamp(sysdate,'DD-MON-RR HH.MI.SSXFF AM'),'ofssuser',to_timestamp(sysdate,'DD-MON-RR HH.MI.SSXFF AM'));
```

```
Insert into DIGX_FW_CONFIG_ALL_O
(PROP_ID,PREFERENCE_NAME,PROP_VALUE,DETERMINANT_VALUE,CREATED_BY,CREATION_DATE,
LAST_UPDATED_BY,LAST_UPDATED_DATE) values
('SPEND_DDA_TRANSACTION_CATEGORIZATION','ExtXfaceConfig','com.ofss.digx.extxface.impl.endpoint.OBRHEndPoint','<<ENTITY_ID>>','ofssuser',to_timestamp(sysdate,'DD-MON-RR HH.MI.SSXFF AM'),'ofssuser',to_timestamp(sysdate,'DD-MON-RR HH.MI.SSXFF AM'));
```

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