

# Oracle® Banking APIs Cloud Service

## Auto Categorization of Spend Transactions



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ORACLE®

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# Preface

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## Purpose

This guide is designed to help acquaint you with the Oracle Banking application. This guide provides answers to specific features and procedures that the user need to be aware of the module to function successfully.

## Audience

This document is intended for the following audience:

- Customers
- Partners

## Documentation Accessibility

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## Diversity and Inclusion

Oracle is fully committed to diversity and inclusion. Oracle respects and values having a diverse workforce that increases thought leadership and innovation. As part of our initiative to build a more inclusive culture that positively impacts our employees, customers, and partners, we are working to remove insensitive terms from our products and documentation. We are also mindful of the necessity to maintain compatibility with our customers' existing technologies and the need to ensure continuity of service as Oracle's offerings and industry standards evolve.

Because of these technical constraints, our effort to remove insensitive terms is ongoing and will take time and external cooperation.

## Conventions

The following text conventions are used in this document:

Convention	Meaning
<b>boldface</b>	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	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.

## Screenshot Disclaimer

Personal information used in the interface or documents is dummy and does not exist in the real world. It is only for reference purposes.

## Acronyms and Abbreviations

The list of the acronyms and abbreviations used in this guide are as follows:

**Table 1 Acronyms and Abbreviations**

Abbreviation	Description
OBDXCS	Oracle Banking Digital Experience Cloud Service

# 1

## 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.spendanalysis.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.spendanalysis.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.spendanalysis.dto.rule.SpendCategorizationOutcomeFact
ValueDTO", "category" :
    "10", "subCategory" :
    "101" }'),
    utl_raw.cast_to_raw('{ "@class" :

"com.ofss.digx.app.spendanalysis.dto.rule.SpendCategorizationExpressionF
actValueDTO", "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)
  - d. SPEND\_DEFAULT\_CATEGORY\_ID → This property is used for maintaining default category, if no keyword is match from all maintained rules.

Below attached screenshot entry is required for setting default category. We need to update the entry from day one configuration screen. We have to maintain the Category ID in this configuration value.

**Note**

If below entry is not maintain and no rule is matched, then no category is set against the spend transaction.

**Figure 1-1 “System configuration” screen with required entry for setting default category**

Entity ID: OBDX\_BU

Entity Name: UBS 14.8

**Entity Configuration**

Origination

Payments

Personal Finance Management

Security Management System

Supply Chain Finance

Supply Chain Finance and Cash Management

**Spend Analysis**

Is rule evaluation required: Y

Spend default category ID: 30

Spend rule name: SpendRule

Administrator spend category max limit: 7

Administrator spend subcategory max limit: 4

Cancel Back



## 2

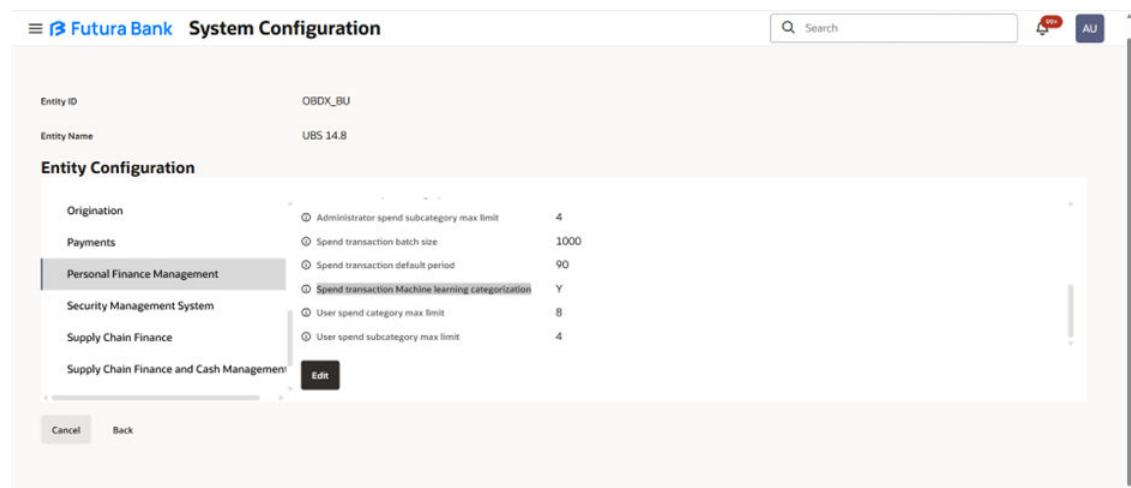
# Categorization Of Spend Transactions Using ML Engines

Bank must use their own Third-party ML Engine provider and customized adapter. If they don't have ML engine provider, then they have to disable the ML Engine call using **Configuration of ML call for Spend transaction categorization** flag as mentioned ahead. If in case categories provided by ML engine does not exist in the system, then system will create those categories.

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.

**Figure 2-1 System configuration screen with Admin Type Role**



```
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.extxfce.spendanalysis.adapter.transaction.ISpend
dUncategorizedTransactionAdapter
.getSpendTransactionCategory','ExtxfceAdapterPreference',
<<Fully qualified package name and class name of customized adapter class>>
','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,CREA
TED_BY,CREATION_DATE, LAST_UPDATED_BY, LAST_UPDATED_DATE)
values ('<< Key used in OBRH to map ML call
```

```
>>,'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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