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| Test ScriptSAP S/4HANA - 21-08-20 | public |
| Intelligent Content Processing for Document Classification (2YC\_DE) |

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# Purpose

Classification of documents having written language (unstructured text) requires huge manual effort.

Recent advances in the field of machine learning (ML) and natural language processing (NLP) allow for very precise and fully automated classification of documents based on their textual content.

The prerequisite for such an automation is the training data containing examples that represent correctly classified documents to allow a machine to use this history data to correctly classify a document.

This document provides a detailed procedure for testing this scope item after solution activation, reflecting the predefined scope of the solution. Each process step, report, or item is covered in its own section, providing the system interactions (test steps) in a table view. Steps that are not in scope of the process but are needed for testing are marked accordingly. Project-specific steps must be added.

# Prerequisites

This section summarizes all the prerequisites for conducting the test in terms of systems, users, master data, organizational data, other test data and business conditions.

## Additional Manual Configuration

Before you can test this scope item, you must have completed the additional configuration steps that are described in the configuration guide Setup Instructions for ML Enabled Document Classification (3E6). These configuration steps are specific for your implementation and include mandatory settings that are not delivered by SAP and must be created by you.

## System Access

|  |  |
| --- | --- |
| System | Details |
| System | Accessible via SAP Fiori launchpad. Your system administrator provides you with the URL to access the various apps assigned to your role. |

## Roles

Assign the following business roles to your individual test users. Alternatively, if available, you can create business roles using the following spaces with pages and predefined apps for the SAP Fiori launchpad and assign the business roles to your individual test users.

Note These roles or spaces are examples provided by SAP. You can use them as templates to create your own roles or spaces.

For more information about business roles, refer to Assigning business roles to a user in the [Administration Guide to Implementation of SAP S/4HANA with SAP Best Practices](https://help.sap.com/viewer/S4HANA2020_AdminGuide) .

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name (Role) | ID (Role) | Description (Space) | ID (Space) | Log On |
| * Design Engineer

Creates and manages the lifecycle of a Document Info Record (DIR) | Document Management | SAP\_BR\_DESIGN\_ENGINEER |  |  |

## Preliminary Steps

### Create Characteristic

Purpose

In this step, you create the characteristic PRODUCT\_TYPE to assign a classification.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instruction | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Fiori launchpad as Design Engineer. | The SAP Fiori launchpad appears. |  |
| 2 | Access the app | Open the Manage Characteristics (CT04) app. | The Characteristics screen displays. |  |
| 3 | Create new characteristic | Make the following entry and choose the Create icon:Characteristic: PRODUCT\_TYPE | The Create Characteristic screen displays. |  |
| 4 | Enter basic data | On the Basic data tab, make the following entries.Basic data section:* Description: Product Type
* Status: Released (default)

Format section:* Data Type: Character Format
* Number of Chars: 30

Value assignment section:* Select the Single Value radio button.
 |  |  |
| 5 | Save the characteristic | Choose Save. | The characteristic is created. |  |

### Create Class

Purpose

In this process step, you create a class with the class type – 017.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instructions | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Fiori launchpad as Design Engineer. | The SAP Fiori launchpad displays. |  |
| 2 | Access the app | Open the Manage Classes (CL02) app. | The Class screen displays. |  |
| 3 | Create new class | Make entries similar to the following example and choose the Create icon.* Class: PRODUCT\_CLASS
* Class type: 017
 | The Create Class screen displays. |  |
| 4 | Enter basic data | On the Basic data tab, make the following entries.Basic data section:* Description: Product Class
* Status: Released (Default)

Same classification section:* Select the Do not check radio button. (Default)

Note If you use the same classification, then you can choose the way of checking (warning message, error, none). |  |  |
| 5 | Enter char. | On the Char. tab, in the first row:* Make the following entry.
	+ Char.: PRODUCT\_TYPE
* Select the Proposal Rel. check box.
 |  |  |
| 6 | Save the class | Choose Save. | The class is created. |  |

### Configure Document Types for Proposing Classification Using SSCUIs (Optional)

Purpose

In this process step, you can configure document types as per your requirement and enable it for automatic classification using machine learning service.

Procedure

To configure document types and maintain the values to use machine learning, use the Self Service Configuration UIs (SSCUI) given in the following table and refer the guide Configure Your Solution in SAPS/4HANA Cloud product documentation.

|  |  |  |
| --- | --- | --- |
| Configuration Step/SSCUI Title | Description | Configuration Step/SSCUI ID |
| Define Document Types | Defines document type which is used in SAP DMS for defining document info records. | 101090 |
| Maintain Values for Proposing Document Classification | Maintain values to use machine learning for proposing document classification. | 102481 |

Note For more information on the process to configure your solution, do the following:

1. Go to <https://help.sap.com> and search for SAP S/4HANA Cloud and open it.
2. Under Product Assistance, choose your preferred language.
3. Choose Generic Information.

Under Generic Information, choose Imlementation Tools. From the list of Implementation Tools displayed, choose Configure Your Solution.

# Overview Table

This scope item consists of several process steps, provided in the table below.

If your system administrator has enabled spaces and pages on the SAP Fiori launchpad, the homepage will only contain the essential apps for performing the typical tasks of a business role.

You can find all other apps not included on the homepage using the search bar.

If you want to personalize the homepage and include the hidden apps, navigate to your user profile and choose Settings > App Finder .

|  |  |  |  |
| --- | --- | --- | --- |
| Process Step | Business Role | App/Transaction | Expected Results |
| [Create New Document](#unique_10) [page ] 8 | SAP\_BR\_DESIGN\_ENGINEER | Manage Documents (F2733) | A new Document Info Record is created and meta data is added. Attachments are added to the document. |
| [Retrieve Auto-Classification](#unique_11) [page ] 10 | SAP\_BR\_DESIGN\_ENGINEER | Manage Documents (F2733) | Class and characteristics values are retrieved. |
| [Validate Auto-Classification](#unique_12) [page ] 11 | SAP\_BR\_DESIGN\_ENGINEER | Manage Documents (F2733) | Classification data is validated and assigned to the document. |

# Test Procedures

This section describes test procedures for each process step that belongs to this scope item.

## Create New Document

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Purpose

In this process step, you create a new document. The files attached to the document are transferred to the Document Service repository of SAP Cloud Platform using the SAP-managed communication scenario SAP\_COM\_1008.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instruction | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Fiori launchpad as Design Engineer. | The SAP Fiori launchpad displays. |  |
| 2 | Access the app | Open the Manage Documents (F2733) app. | The Manage Documents screen displays. |  |
| 3 | Create new document | Click the + icon to create a new document. | The Document screen displays. |  |
| 4 | Enter meta data | 1. On the General Information tab, make the following entries:
	* Document Type: AUT
	* Document Part : 000
2. On the Document Data tab, enter a document description. For example, Document Description: Design Document 001.
3. Press Enter.
 | The Document Status field is set to WR. |  |
| 5 | Upload attachments to the document | 1. Choose the Originals tab.
2. Choose the + icon.
3. On the Choose File to Upload dialog box, select the file that you want to upload.
4. Choose Open.

Tip* + The file must be a PDF document that provides specifications of products like laptops, mobiles, and so on.
	+ The file must be less than 10 MB in size and must have 10 or lesser pages.
 | The file is added as an attachment and is checked in. |  |
| 6 | Save the document | Choose Save. | A new document of the type AUT is created. |  |
| 7 | Set the document status to In Work | 1. Choose Edit.
2. On the Document Data tab, set the Document Status field to In Work.
3. Choose Save.
 | The document status is set to In Work.Remember Note the Document Number. |  |

## Retrieve Auto-Classification

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Context

In this process step, you retrieve the classification information of the document using the machine learning service.

Procedure

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instruction | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Fiori launchpad as Design Engineer. | The SAP Fiori launchpad displays. |  |
| 2 | Access the app | Open the Manage Documents (F2733) app. | The Manage Documents screen displays. |  |
| 3 | Open the document | 1. Make the following entries, and choose Go:
	* Document Number: The ID of the document created in [Create New Document](#unique_10) [page ] 8.
	* Document Type: AUT
	* Document Version: 00
	* Document Part: 000
2. Select the document in the search results.
 | The Document screen displays the document details. |  |
| 4 | Retrieve classification data | 1. Choose Edit.
2. On the Classification tab, choose get classification proposal.
 | The classification details of the document, that is, Class and Product Type are displayed. |  |
| 5 | Save the document | Choose Save. | The document is saved. |  |

## Validate Auto-Classification

Test Administration

Customer project: Fill in the project-specific parts.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Test Case ID | <X.XX> | Tester Name |  | Testing Date | Enter a test date. |
| Business Role(s) |  |
| Responsibility | <State the Service Provider, Customer or Joint Service Provider and Customer> | Duration | Enter a duration. |

Context

In this process step, you retrieve the classification information of the document from SAP Cloud Foundry using the machine learning service.

Procedure

Tip If you carry out this test procedure in continuation to [Retrieve Auto-Classification](#unique_11) [page ] 10, you can proceed directly to the Validate auto classification data test step.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Test Step # | Test Step Name | Instruction | Expected Result | Comments |
| 1 | Log on | Log on to the SAP Fiori launchpad as Design Engineer. | The SAP Fiori launchpad displays. |  |
| 2 | Access the app | Open the Manage Documents (F2733) app. | The Manage Documents screen displays. |  |
| 3 | Open the document | 1. Make the following entries, and choose Go:
	* Document Number: The ID of the document created in [Create New Document](#unique_10) [page ] 8.
	* Document Type: AUT
	* Document Version: 00
	* Document Part: 000
2. Select the document in the search results.
 | The Document screen displays the document details. |  |
| 4 | Validate auto classification data | 1. Validate whether the Product Type field displays the correct product type.
2. If the field is blank or if the product type is not accurate, then:
	1. Choose Edit.
	2. On the Classification tab, in the Product Type field, enter the correct product type.

Note The machine learning service updates the product type value only if the confidence level is detected to be more than 90%. |  |  |
| 6 | Save the document | Choose Save. | The document is saved. |  |

Typographic Conventions

|  |  |
| --- | --- |
| Type Style | Description |
| Example | Words or characters quoted from the screen. These include field names, screen titles, pushbuttons labels, menu names, menu paths, and menu options.Textual cross-references to other documents. |
| Example | Emphasized words or expressions. |
| EXAMPLE | Technical names of system objects. These include report names, program names, transaction codes, table names, and key concepts of a programming language when they are surrounded by body text, for example, SELECT and INCLUDE. |
| Example | Output on the screen. This includes file and directory names and their paths, messages, names of variables and parameters, source text, and names of installation, upgrade and database tools. |
| Example | Exact user entry. These are words or characters that you enter in the system exactly as they appear in the documentation. |
| <Example> | Variable user entry. Angle brackets indicate that you replace these words and characters with appropriate entries to make entries in the system. |
| EXAMPLE | Keys on the keyboard, for example, F2 or ENTER. |

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