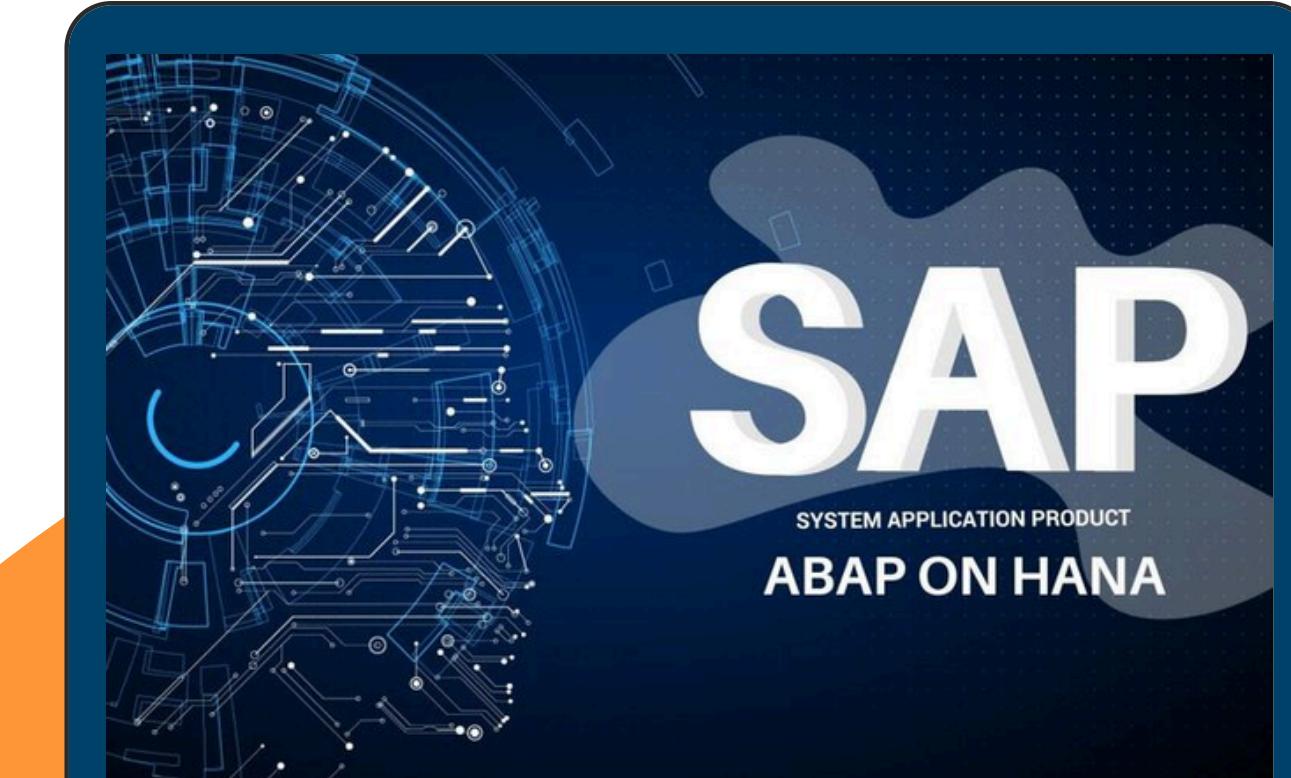


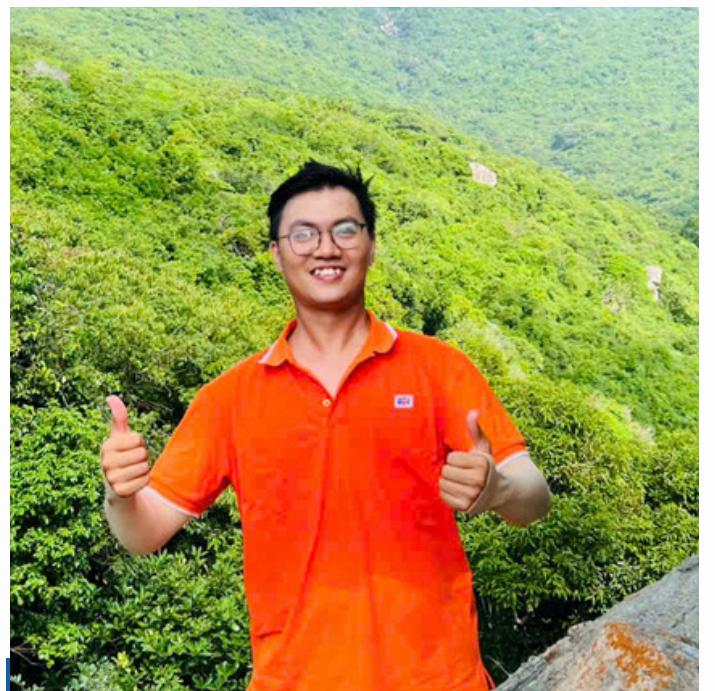
Material Master Data Management

SAP Capstone Project 2024

Group Code: FA24SAP03



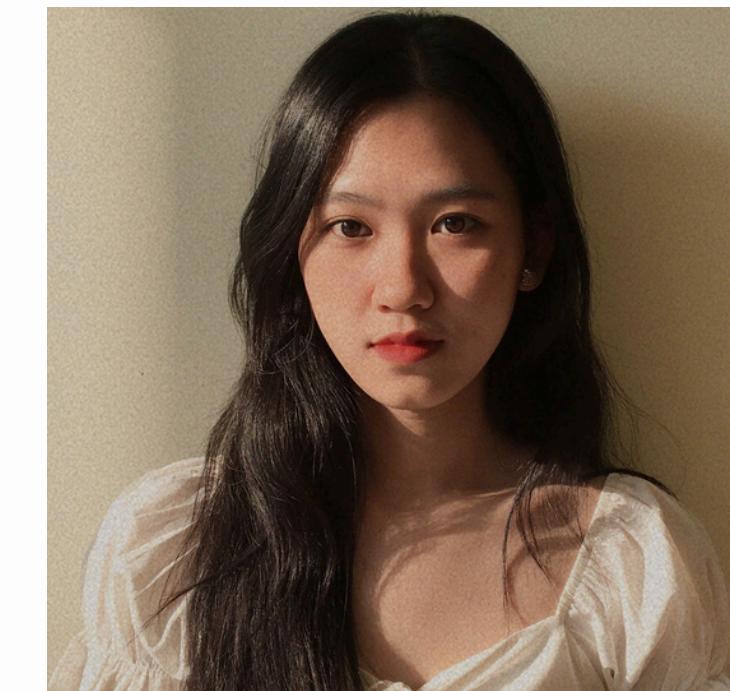
Special Thanks To Our Supervisors



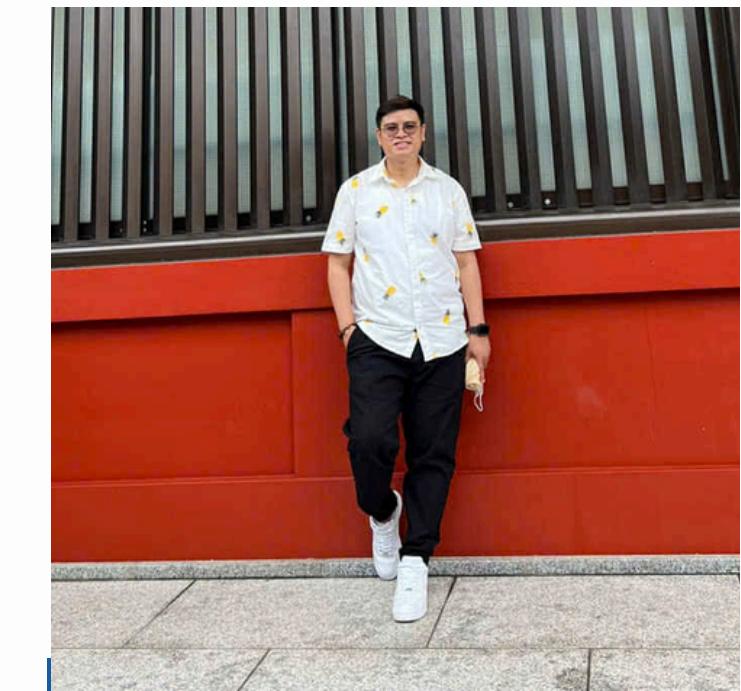
Nguyễn Bá Lê
FPTU Supervisor



Nguyễn Thế Hoàng
FPTU Supervisor



Bùi Thị Ny Ny
FPT Software Supervisor



Phạm Quốc Nam
FPT Software Supervisor

Team Members



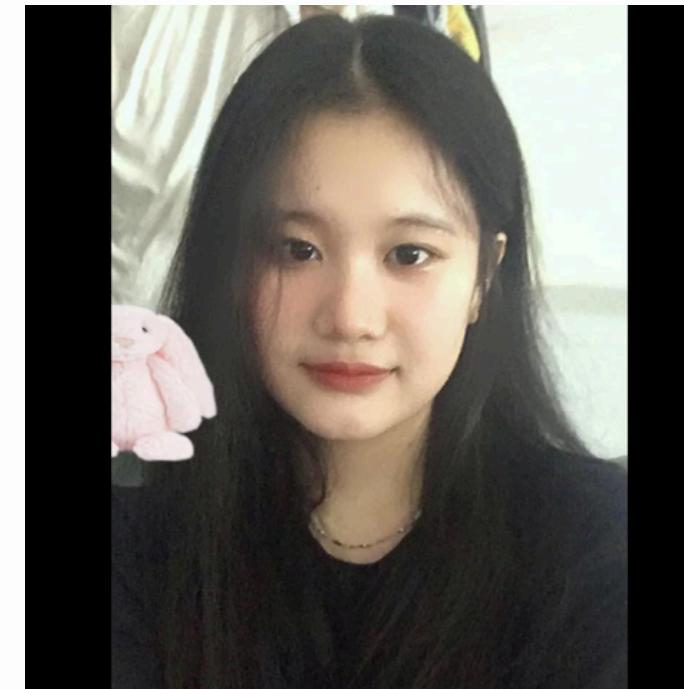
Trần Thanh Phong
Technical Consultant
Lead Project Manager



Tạ Thanh Trúc
Technical Consultant



Tạ Thị Bích Diễm
Functional Consultant



Vương Thanh Hà
Functional Consultant



Nguyễn Thị Ý Nhi
Functional Consultant

AGENDA

- 01 Introduction
- 02 Requirements
- 03 Implementation
- 04 Demonstration
- 05 Conclusion

INTRODUCTION

Company Background

-  Sunrise Electronics Joint Stock Company (SEJSC) has branch company in Ha Noi, Da Nang and Can Tho.
-  Specializes in providing electronic devices such as phones, tablets, laptops and services.
-  SEJSC currently utilizes





PROBLEMS

Limited processing of bulk data

- Process data on each material through T-code MM01, MM02, MM03
- It takes time and effort to create and modify large data information

Visibility and interaction with data

- Displaying data as data tables or visualization reports is not supported
- Testing and comparing data between multiple materials or objects can be difficult



PROBLEMS

Risk and low error handling ability

- Manual changes on multiple records can lead to errors or incorrect data entry.
- Error checking and handling becomes difficult, requiring many manual adjustments.

Customizability and error control

- Lack of flexibility in adjusting specific attribute for each material.
- Error checking is not robust enough when incorrect data is entered without a clear warning



Requirements



Excel Template for Material Master Data



**Download/Upload Excel file to Create & Extend for
Material Master Data**

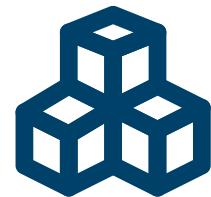


Display Material Report



Edit Material Master Data

Proposed Business Process



Standardized Template in Excel

Bulk upload of material data, including SAP standard fields and custom "Z-Fields".



Upload Excel Functionality

Import large quantities of material data, reducing manual entry and errors.

Proposed Business Process



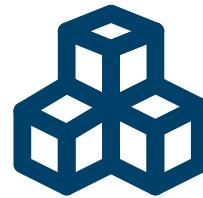
Extension of Materials

Add new materials to appropriate plants and storage locations via the upload process.



Flexible Interface (ALV Display Tool)

Efficiently edit and display material information, ensuring up-to-date master data.

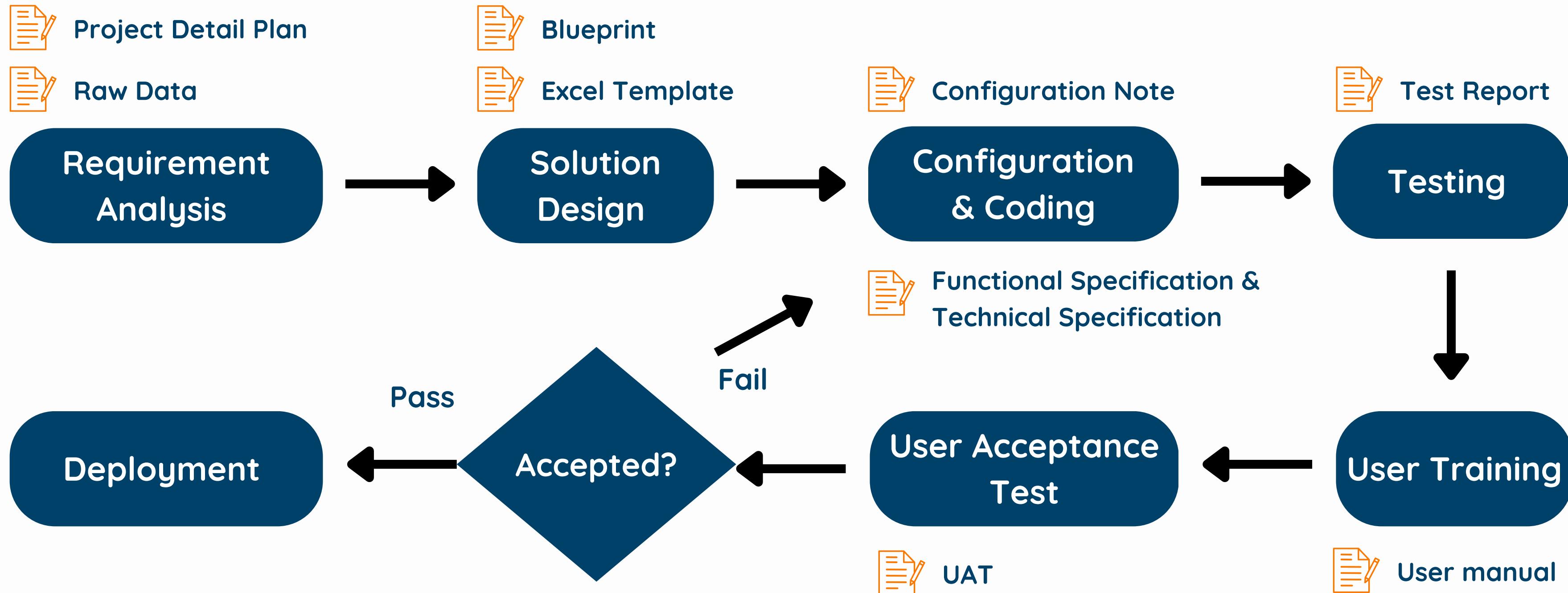


Multi-Language Conversion for Descriptions

Automatically translates material descriptions during upload for consistent global data management.

IMPLEMENTATION

Project Process



Change View "Material types": Details

Dialog Structure
Material Type HAWA **Trading Goods** Product Type Group

General data

Field reference	HAWA	X-Plant Mat.Status	<input type="checkbox"/>
SRef: material type	ROH	Item category group	NORM
Authorization group	<input type="checkbox"/>	With Qty Structure	<input type="checkbox"/>
External no. assignment w/o check	<input checked="" type="checkbox"/>	Initial Status	<input checked="" type="checkbox"/>

Special material types

Material is configurable	<input type="checkbox"/>
Material f. process	<input type="checkbox"/>
Pipeline mandatory	<input type="checkbox"/>
Mand. RP logistics	<input type="checkbox"/>
Manufacturer part	<input type="checkbox"/>
FFF Class	<input type="checkbox"/>
Only EWM Stock	<input type="checkbox"/>

User departments

Status description	<input type="checkbox"/>
Work scheduling	<input type="checkbox"/>
Accounting	<input type="checkbox"/>
Classification	<input type="checkbox"/>
MRP	<input type="checkbox"/>
Purchasing	<input type="checkbox"/>
Production resources/tools	<input type="checkbox"/>
Costing	<input type="checkbox"/>
Basic data	<input type="checkbox"/>
Storage	<input type="checkbox"/>
Forecasting	<input type="checkbox"/>

Internal/external purchase orders

Ext. Purchase Orders	2
Int. purchase orders	0

Classification

Class type	<input type="checkbox"/>
Class	<input type="checkbox"/>

Valuation

Price control	Moving average price/periodic unit price
Acct cat. reference	0005
Price Ctrl.Mandatory <input type="checkbox"/>	

SAP

Change View "Material types": Details

Dialog Structure
Material Type HAWA **Trading Goods** Product Type Group

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Only EWM Stock	<input type="checkbox"/>

User departments

Status description	<input type="checkbox"/>
Purchasing	<input type="checkbox"/>
Production resources/tools	<input type="checkbox"/>
Costing	<input type="checkbox"/>
Basic data	<input type="checkbox"/>
Storage	<input type="checkbox"/>
Forecasting	<input type="checkbox"/>
Quality management	<input type="checkbox"/>
Warehouse management	<input type="checkbox"/>
Sales	<input type="checkbox"/>
Plant stocks	<input type="checkbox"/>

Internal/external purchase orders

Ext. Purchase Orders	2
Int. purchase orders	0

Classification

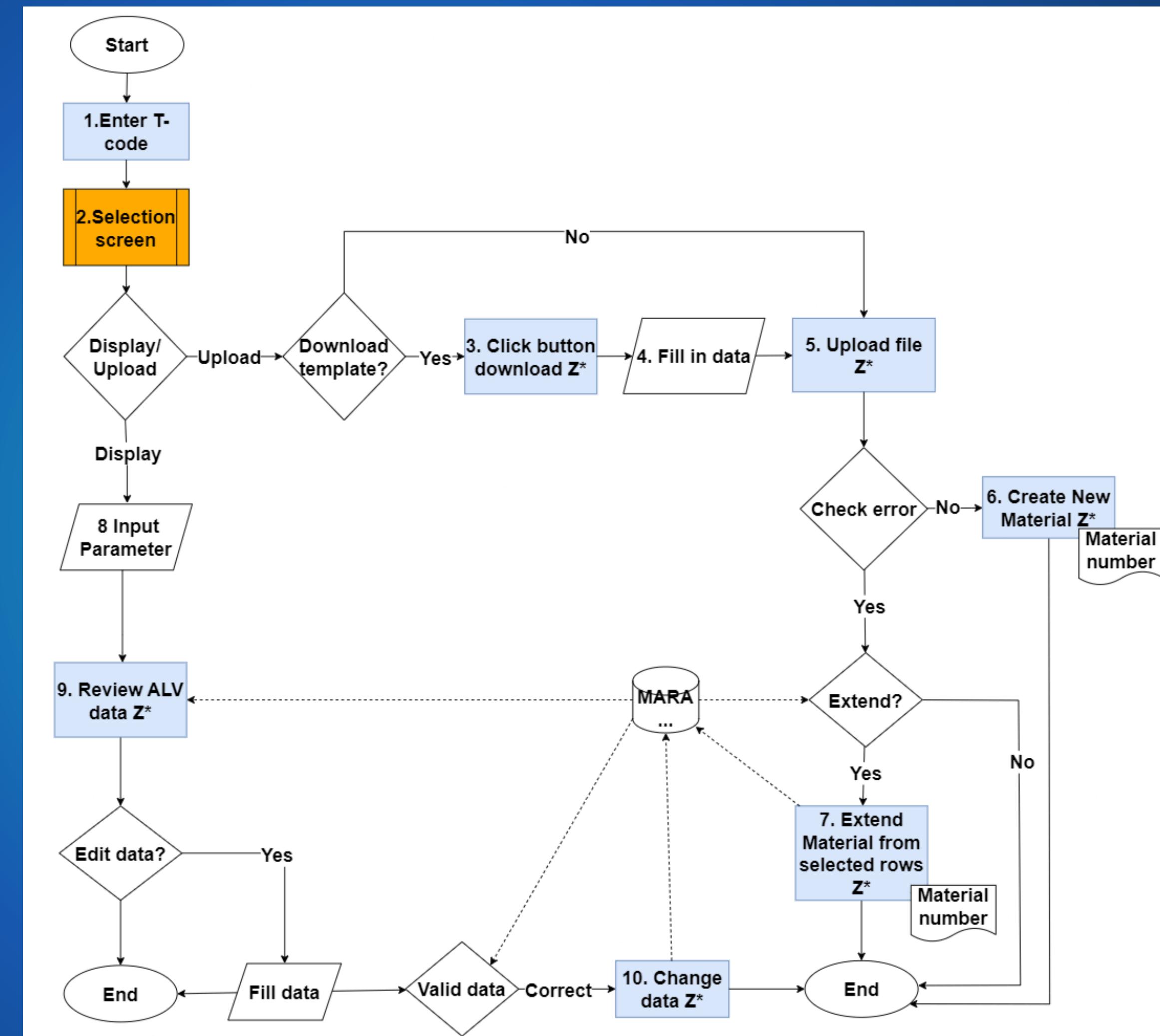
Class type	<input type="checkbox"/>
Class	<input type="checkbox"/>

Valuation

Price control	Moving average price/periodic unit price
Acct cat. reference	0005
Price Ctrl.Mandatory <input type="checkbox"/>	

SAP

Workflow



Program

💡 T-code ZMM01

💡 Upload Flow

Material Master Data Management

Display **Upload**

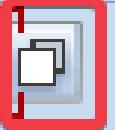
Download Material Template Download Multi-Lang Desc Temp

Options:

Create & Extend Material Multi-language Description

Input path to upload:

File path:



Program

 T-code ZMM01

 Display Flow

Material Master Data Management

   Download Material Template  Download Multi-Lang Desc Temp

Display **Upload**

Parameters:

Material  to 

Industry Sector

Material Type

Plant to 

Storage Location to 

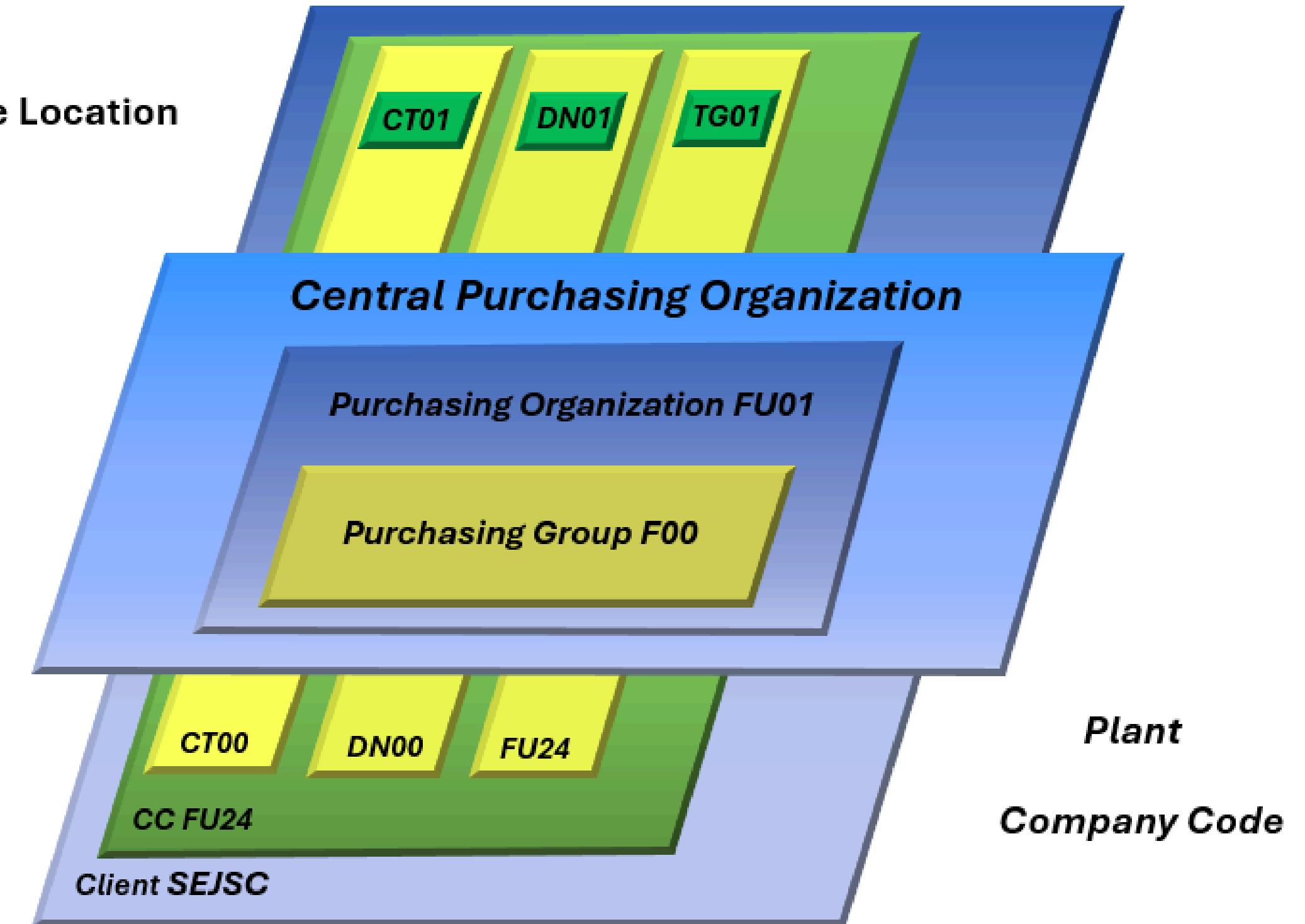
CONFIGURATION



Configuration

Enterprise Structure

Storage Location



Configuration

- ✓ Industry Sector
- ✓ Material Type
- ✓ Define Material Group
- ✓ Group together valuation areas
- ✓ Define valuations classes
- ✓ Assign/active material ledger types to valuation area
- ✓ Define Attribute of Material Type
- ✓ Create Characteristics
- ✓ Create Class

Material Valuation class

Configuration



Trading Goods

- Use Moving Average Price (V): Weighted average price of material, updated regularly with PO price changes.



Service

- No Accounting View: Manual price applied

SYSTEM LANDSCAPE

Platform

- The project is built on **SAP S/4HANA** using an **On-premise** deployment model.
- SAP GUI
- Kernel version: 789.
- Language: ABAP

Key features

- Powered by **SAP HANA Database**.
 - Faster data queries compared to traditional databases.
 - Includes **buffering technology** for optimized query processing.
- Comprehensive integration across all ERP modules.



Environment



Technique

BAPIs

- BAPI_MATERIAL_GETALL
- BAPI_MATERIAL_SAVEDATA
- BAPI_OBJCL_CHANGE

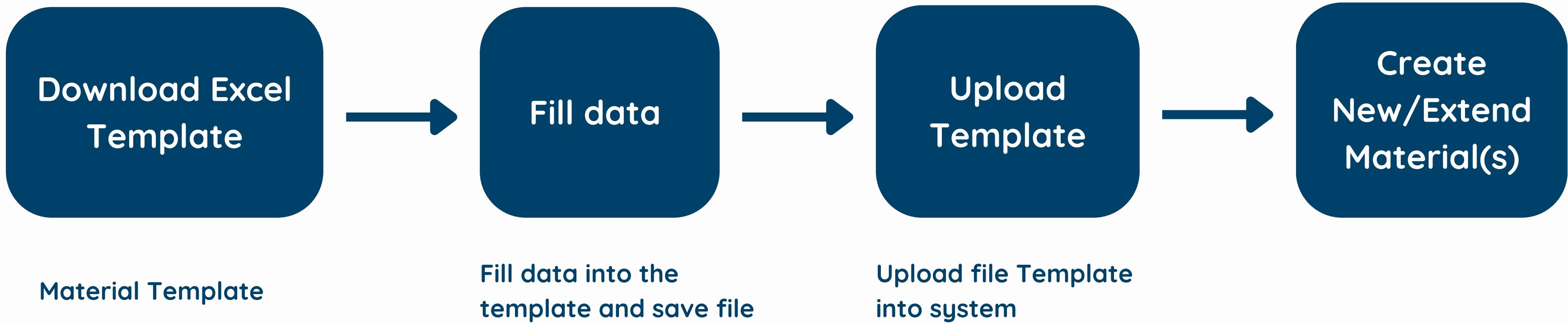
Display ALV

- CL_GUI_ALV_GRID
- REUSE_ALV_GRID_DISPLAY_LVC

DEMONSTRATION

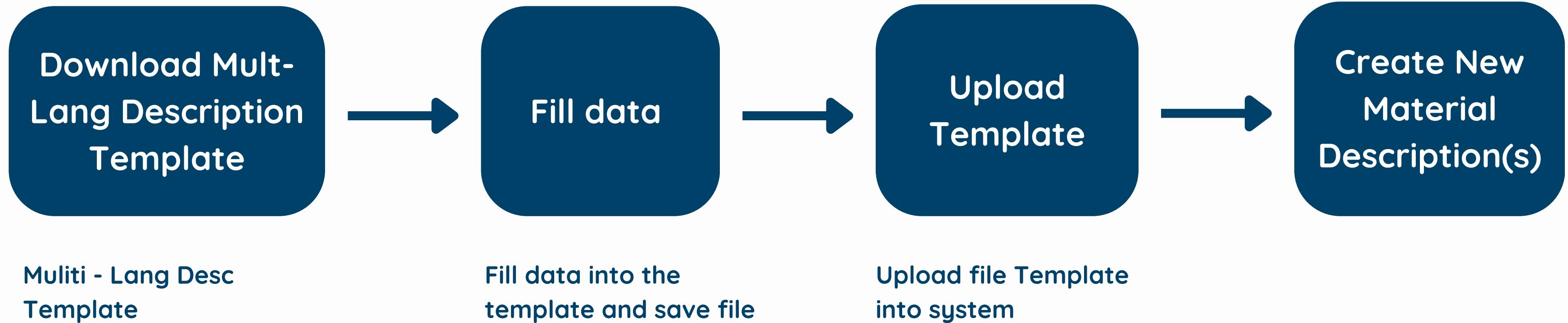
Demonstration Context

Upload to create new and extend material



Demonstration Context

Upload to create Material Descriptions into Multi-language



Demonstration Context

Display ALV and Mark as deletion / Revert deletion



Enter valid data

Display Material Master
Data Management
screen

Choose line Material(s)
to delete/revert
Material(s)

Demonstration Context

Edit Material(s)



Enter valid data

Display Material Master
Data Management
screen

Choose line Material(s)
to Edit

CONCLUSION



Advantages

- Improved time management and planning skills.
- Engage in hands-on practice within the SAP system.
- Design innovative approaches to difficulties.



Disadvantages

- The SAP system frequently experiences malfunctions.
- After Unmarking successfully, no message is displayed to the user
- Incorrect data after upload cannot be edited directly on the ALV screen, must be downloaded, edited and then uploaded again.

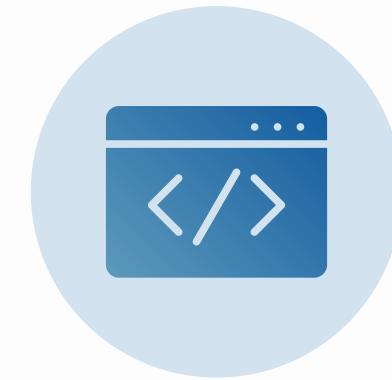


THANK YOU!



QUESTIONS & ANSWERS

Development Process



Software

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\$ 128



IT consulting

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\$ 139



Data analytics

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\$ 145