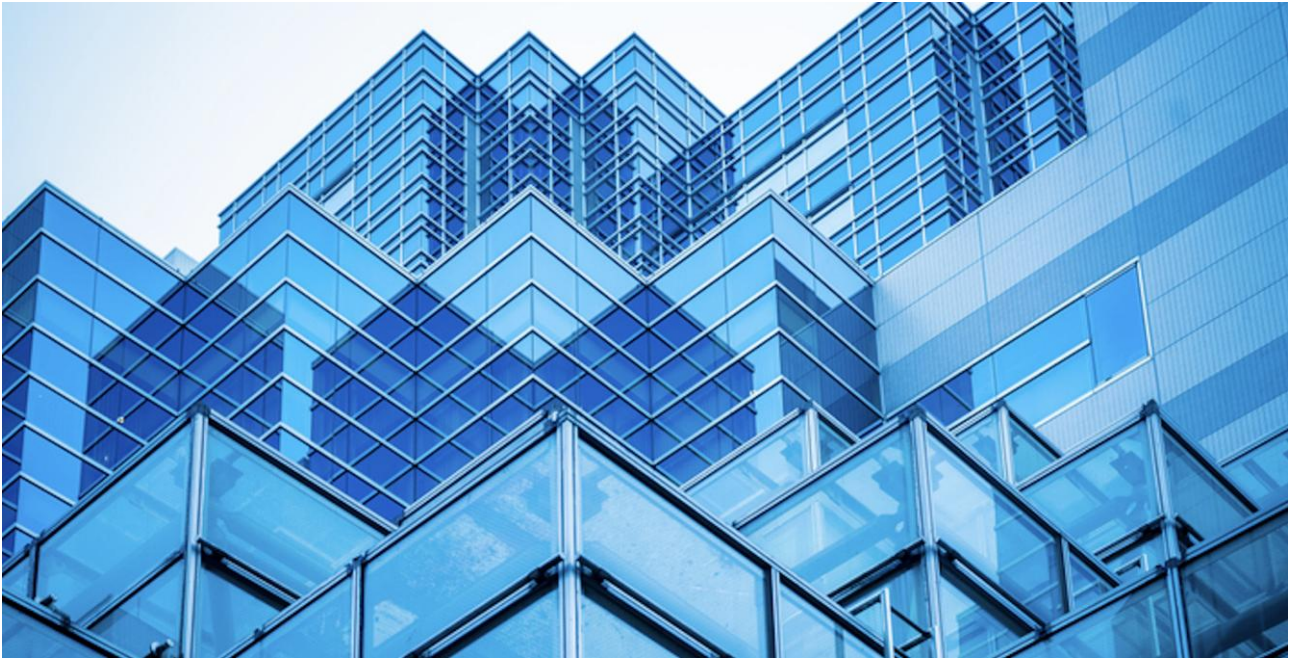




PUBLIC

SAP Build Process Automation

Monitor Collection Reminders Configuration and User Guide

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Change Log

Version	Date	Description
1.0.0	May 21, 2025	Document update: Appendix updated



This document contains 3 sections. Each section covers different information about this template content package.

1. **Overview:** In this section, you will get quick overview of the use case, what are high-level components used and how the template works in nutshell. Prerequisite section provides information of different services of SAP Business Technology Platform that are required to use this template.
2. **Configuration Guide** It contain sections which will guide you to setup your (a) SAP Business Technology Platform Account with destination, cloud connector, user roles etc., (b) Integration Content via SAP Integration Suite, (c) SAPUI5 application via SAP Business Application Studio and (d) Import and configure the template using SAP Build Process Automation design studio.
3. **User Guide:** This section provides details about different artefacts that are used in this template like process definition, decision diagram, action project details, forms, email notifications etc. to better understand how different capabilities are used in this template.

Note:

- Learning contents are published only for demo and reference purposes. We do not provide any support to learning / sample content.
- This documentation is not a detailed guide to setup SAP Business Technology Platform services. It assumes that IT admin who is setting the content is skilled with SAP Business Technology Platform environment. **Configuration section must be followed.**
- This template content is to accelerate your solution development. You must modify this template according to your requirements to achieve the desired business goal. To use this template content, you need to have basic knowledge and understanding of SAP Build Process Automation and its capabilities.

Overview

This document provides technical information about what needs to be configured to make the package – Monitor Collection Reminders run. The main audience of this document are technical personas like IT Administrators or Developers.

Monitor Collection Reminders package user can raise approval for customer invoice collection whenever a dunning notice is generated.

This content package can be used with both SAP S/4HANA Cloud Private Edition (2023 onwards) and S/4HANA On-Premise.

Features:

- Retrieve overdue invoices and customer details from the SAP S/4HANA system and identify approvers based on the fetched data.
- Automatic email notification to parties involved.
- Out-of-the-box visibility into key process performance indicator

Required SAP Business Technology Platform Services

The following SAP Business Technology Platform services are required to consume the **Monitor Collection Reminders**:

- SAP Build Process Automation
- SAP Connectivity service
- SAP Business Application Studio
- SAP Application Runtime Service
- SAP Work Zone, standard or advanced
- SAP Integration Suite
- SAP Cloud Identity Services - Identity Authentication (optional)
- SAP Business Technology Platform, Cloud Foundry runtime.

Prerequisites

For this template to run successfully the following prerequisites are needed

- Get access to BTP Account.
- Need valid SAP S/4HANA user.
- This template requires Integration package SAP Build Process Automation Integration with SAP S/4HANA for Automated Collections Reminder to run. You can download this package separately from the store. The guide to set-up and configure integration package is mentioned along with the integration package itself.

Configuration Guide

Monitor Collection Reminders template requires SAP Build Process Automation subscription and Destination Setup for SAP Build Process Automation. Follow the [setup and configuration section](#).

Setup Business Technology Platform Cockpit

Configure SAP Build Process Automation Destination

To Access the SAP Build process Automation, you can configure the destination. Please create destination accordingly

Destination Property	Value
Name	sap_process_automation_service
Type	HTTP
URL	<"endpoints"."api">
Client ID	<"uaa"."clientid">
Client Secret	<"uaa"."clientsecret">
Token Service URL	<"uaa"."url">/oauth/token
Proxy Type Internet	Internet
Authentication	OAuth2ClientCredentials

Add the property **sap.processautomation.enabled** as **true** to view the destination in the SAP Build Process Automation tenant. Please refer [help document](#) for more details.

Configure SAP S/4HANA Destination

This content package can be used with SAP S/4HANA On-Premise. Destination can be created accordingly.

Destination Property	Value
Name	<Name>
Type	HTTP
URL	<SAP S/4HANA endpoint> Example: https://<s4system-name>-api.xxxxxxxx
Proxy Type Internet	Internet
Authentication	Basic Authentication
Username	<Username> of the SAP S/4HANA Communication User
Password	<Password> of the SAP S/4HANA Communication User

Configure SAP Integration Suite Destination

Configure Destination to connect to Integration Suite destination cloud system.

Destination Property	Value
Name	IntegrationSuite
Type	HTTP
URL	<Integration Suite Destination endpoint> <a href="https://<CPI>.hana.ondemand.com">https://<CPI>.hana.ondemand.com
Proxy Type Internet	Internet
Authentication	Basic Authentication
Username	<Username> of the SAP S/4HANA Communication User
Password	<Password> of the SAP S/4HANA Communication User

Configure SAP Build Process Automation Email Destination

Mail notifications are used in this template to send notifications to requestor, approver, and admin during different stages of the process. Follow the instructions to setup mail destination in your SAP Business Technology Platform Account.

Configuring destination, [Configure Mail Destination](#)

- For more information refer to Create [HTTP Destinations](#) and [OAuth User Token Exchange Authentication](#).

User Roles Configuration

To access this template, the business user will need these roles:

Role Collection Name	Purpose
----------------------	---------

TaskCenterAdmin	Permission to execute calls to the connector status API and monitor configured destinations and running background jobs.
Process Automation Developer	Standard Business User, can model and publish processes
ProcessAutomationParticipant	To execute (like accessing MyInbox, running the automations, etc.) this content package, you need to have this role assigned to the respective user.
ProcessAutomationAdmin	To perform process admin activities like accessing monitoring applications etc., you need to have this role assigned to the respective user.
Business_Application_Studio_Administrator	Allows administrators to manage (export and delete) user data.
Business_Application_Studio_Developer	Allows developers to load and develop applications using SAP Business Application Studio.

For more information about SAP Build Process Automation roles, see [Authorizations](#).

Cloud Connector Configuration

For SAP S/4HANA on-premise landscape, configure cloud connector to enable secure tunnel to SAP Business Technology Platform tenant. Please refer the help documentation to [configure Cloud Connector](#).

Services/Resources that need to be exposed from SAP S/4HANA on-premise using Cloud Connector.

Resources	Protocol	Backend-Type
/sap/opu/odata/sap/ZAPI_JE_CHANGE_SRV /JournalEntrySet	OData	SAP S/4HANA
/sap/opu/odata/sap/API_OPLACCTGDOCITEMCUBE_SRV /A_OperationalAcctgDocItemCube(CompanyCode='{CompanyCode}', FiscalYear='{FiscalYear}',AccountingDocument='{AccountingDocumen t}',AccountingDocumentItem='{AccountingDocumentItem}')	OData	SAP S/4HANA

- Please refer to “**Appendix**” section for setup of service “/sap/opu/odata/sap/ZAPI_JE_CHANGE_SRV /JournalEntrySet”

Setup Content Package

Import SAP Build Process Automation content

Standard automation packages released by SAP will be available at the store. To know more about the store visit [SAP Build Process Automation Store](#).

This template can be downloaded from the Store:

1. Navigate to the Store in your SAP Build Process Automation account.
2. Select the Project Type filter as “Business Process.”
3. In the Search bar type “**Monitor Collection Reminders**”
4. Select the “Create from Template” button to add the template into your lobby.
5. After successfully adding the template, navigate back to the lobby to find the “**Monitor Collection Reminders**” template available for use.

Caution: Be sure to select the **Project Type** as “**Business Process**” in the filters.

Import and deploy TASK UI application

The content package requires the SAP UI5 user interface which is available in Monitor Collection Reminders Process content package. Below are details of Task UI application

Task UI Application: Collection_Reminder

Following steps can be followed to utilize the SAP UI5 application provided with this process package:

- Download the SAPUI5 application Task UI from the imported store project.
- Open Business Application Studio and import the previously downloaded SAPUI5 project.
- Build SAPUI5 project using mta.yaml file and the generated project (generated mtar file will be available in the mta_archives folder) file can be deployed.

Configuration & Modification

Once you have added the content to lobby, you will find the project in your project list. Adapt the content template based on your requirements.

Configure Decisions

There are 3 decisions in this template and can configure as required.

1. Determine Approvers

Decision to determine approvers for an approval step in monitor collection reminder process. To modify the decision:

- In process editor, double click to open the decision.
- Select the rule from the decision diagram.

The screenshot displays the SAP Business Application Studio interface. On the left, a process diagram shows a flow from 'Input' to 'Decision' to 'Result'. The 'Decision' node is expanded, showing a rule named 'Determine Approvers'. On the right, the configuration panel for 'Determine Approvers' is visible. It includes a description: 'Decision to determine approvers for an approval step in monitor collection reminder process.' Below this, there are tabs for 'Inputs/Output', 'Rules', and 'Variables'. The 'Inputs/Output' tab is active, showing input parameters: 'Approval Step' (String), 'Dunning Notice Details' (String), and 'Dunning Notice Details' (List). The output parameter is 'Approver Details' (List). The 'Rules' tab is also visible, showing a rule named 'Determine Approvers' with a description: 'Determine approvers for an approval step in monitor collection reminder process.'

- Edit the rule to add more rows or update existing value.

Determine Approvers

Determine Approvers

General Information:
Status: Draft
Hit Policy: **FIRST MATCH**

Description:
Determine approvers for a approval step in monitor collection reminder approval process.

Decision Table		Then
Company Code	Customer Num...	Approval Step
MATCHES '*'	MATCHES '*'	= 'Collection ...'
MATCHES '*'	MATCHES '*'	= 'Legal Team'
MATCHES '*'	MATCHES '*'	= 'Insurance ...'

Design Console (0)

Determine Task Due Date

Text Rule

If

Approval Step = 'Collection Team'

Then

DueDurationInDays: 2

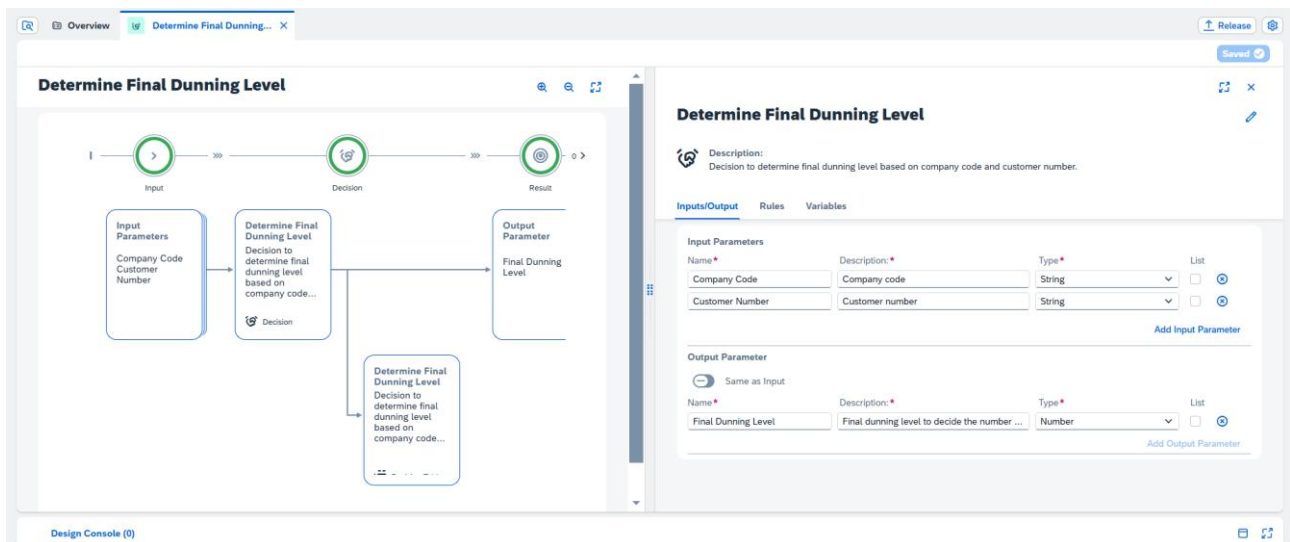
Else If

Else

DueDurationInDays: 1

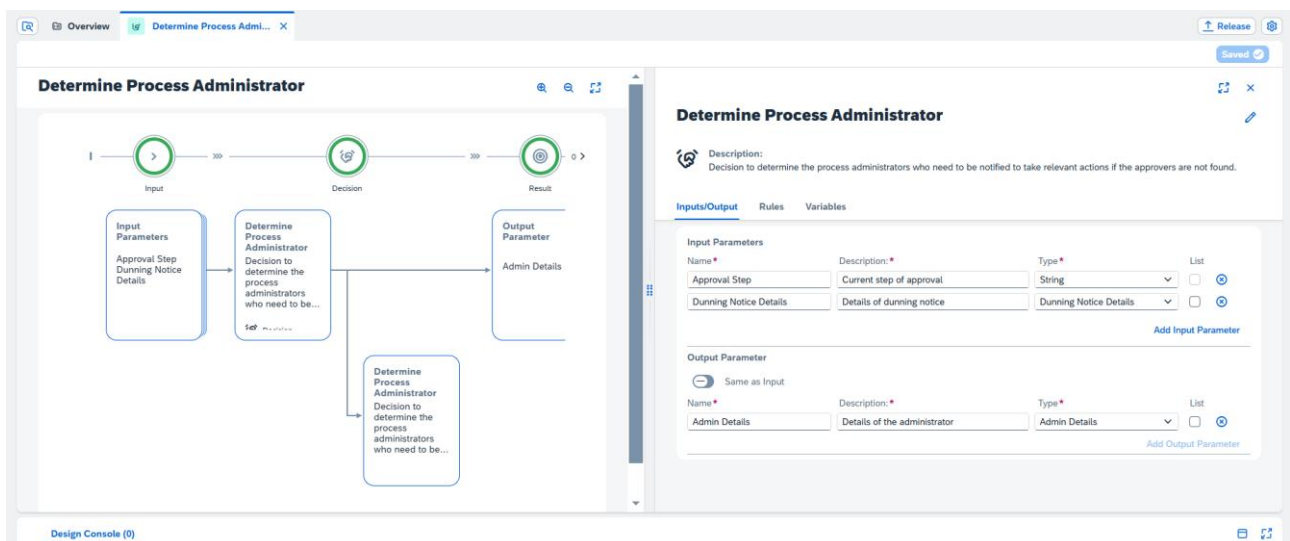
Design Console (0)

2. Determine Final Dunning Level
Decision to determine final dunning level based on company code and customer number.



3. Determine Process Administrator

Decision to determine the process administrators who need to be notified to take relevant actions if the approvers are not found.



Configure Email

Email notifications are sent to requestor and approver at different places during process and task execution. All the email artefacts in the process have default template body which can be modified.

To update the email body content, do the following:

- Select the mail artefact in the process.
- From the **Settings** in the right-side panel, check the **Mail Header** to confirm the **To** field (or email recipients) and the **Subject**. You can adjust the subject and recipient, if needed.

- You may also add someone in **CC**.
- Click to Open '**Mail Body Editor**'.

Mail Body

Dear Admin,

Please note that there is a task pending in My Inbox App which needs your attention.

Approver needs to be maintained for Approval of Monitor Collection Reminders >>> DocumentNumber with dunning level >>> CurrentDunningLevel for role >>> Approval Step.

More details about dunning notice are as follows:

Company Code - >>> CompanyCode

Fiscal Year - >>> FiscalYear

Customer Number - >>> CustomerNumber

Customer Name - >>> CustomerName

Document Number - >>> DocumentNumber

Amount - >>> Amount

Net Due Date - >>> NetDueDate

Overdue by days - >>> ArrearsByNetDueDate

This is a system generated email, please do not respond to it.

Close

- The mail editor allows you to write and adjust text according to your needs. You can also reuse information that has been collected during the process. If you want to use additional process context data, you can simply drag the fields from the left menu to the editor on the right.

For more information on email configuration and text, refer to this [link](#)

In case any further extension needs to be made then follow the reference links below.

Create Process

[Create a Business Process | SAP Help Portal](#)

Create Forms

[Create a Form | SAP Help Portal](#)

Create Automation

[Create an Automation | SAP Help Portal](#)

Create Decision

[Create a Decision | SAP Help Portal](#)

Create Process Visibility Scenario

[Create a Visibility Scenario | SAP Help Portal](#)

Release and Deploy the Process

After configuring your process, it's time to publish, test and run it. To run a process, you must first release and deploy it.

Release - This locks the version of your process, meaning that no further edits can be made to that version. At this stage, the process can't be run and isn't available to participants yet. To release a version of your process:

- First ensure that the status is listed as 'Editable'.
- Then click 'Release'.

For more information please visit: [SAP Build Process Automation](#)

Note: If this is the first time you've released the process, a version labelled 1.0.0 is released. For subsequent releases, you're prompted to select a version type before the process is released.

Import Destination

Actual destinations that are created in SAP BTP cockpit will be required when you deploy the process. This destination will be mapped to the destination environment variables during deployment.

To configure destination,

- Click on **Control Tower**.
- Select **Destinations** from the right panel.
- Click **Add**

Select the destinations created in the setup section to be added.

For more information and screen shots, please refer to the below link: [Manage Destinations](#)

Deploy – This takes a released version of a process and enables it to be actively run and monitored. A deployed version of this approval process unlocks the request form, allowing participants to submit requests and the approvers to view items in their inbox.

To deploy a released version of your process,

- First ensure that the status is listed as 'Released'.
- Then click '**Deploy**'.

For more information and screen shots, please refer to the below link: [Deploy Project](#)

To deploy your project, you will be prompted to provide a destination as an environment variable. Select the destination from the drop-down and fill other environment variables as well.

- **S4HANA:** Business Technology Platform destination to connect with SAP S/4HANA system. As shown in SAP S/4HANA destination set-up-section.

Note: If you do not map your destination environment variable with actual SAP Business Technology Platform destination during deployment, then the process will enter erroneous state when it tries to connect to the external system.

User Guides

Capabilities

The following are the capabilities of this template:

For detailed information about different artifacts, please refer [help documentation](#)

Type	Name	Description
------	------	-------------

Decision	Determine Approvers	Decision to determine approvers for a approval step in monitor collection reminder process.
Decision	Determine Final Dunning Level	Decision to determine final dunning level based on company code and customer number.
Decision	Determine Process Administrator	Decision to determine the process administrators who need to be notified to take relevant actions if the approvers are not found.
Process	Collection Reminder Approval	Process to approve dunning notices raised against unpaid customer invoices.
Process	Initialization	Process to initialize final dunning level for unpaid customer invoice.
Form	Admin Form	Form to manually assign approver if not determined by decisions.
Form	Approval Form	Form to approve or reject collection reminders of customers.
Form	Final Dunning Level Assignment Form	Form to assign final dunning level manually if not determined by decisions.
Data type	Admin Details	Data type for details of process administrators who will be notified to take action if there is any issue with determining the approvers.
Data type	Approver Details	Data type for approver details to approve dunning notices.
Data type	Dunning Notice Details	Data type for details about dunning notice generated for customer overdue bill.
Data type	History Details	Data type for history details like processor decision and comments.

Actions

Monitor Collection Reminders - Read Accounting Documents Action

This service is based on the OData protocol and can be consumed in fiori apps and on other user interfaces. This service only extracts journal entries with an entry view and is not designed to extract large data volumes. It contains the operational accounting document header and item nodes.

Method	API	API Path	Purpose
GET	/sap/opu/odata/sap/API_OPLACCTGDOCITEMCUBE_SRV	/sap/opu/odata/sap/API_OPLACCTGDOCITEMCUBE_SRV/A_OperationalAcctgDocItemCube(CompanyCode='{CompanyCode}',FiscalYear='{FiscalYear}',AccountingDocument='{AccountingDocument}',Accounting	Get call to check payment status of customer invoice.

DocumentItem='{AccountingDocumentItem}')

Monitor Collection Reminder - Apply/Release Dunning Block Action

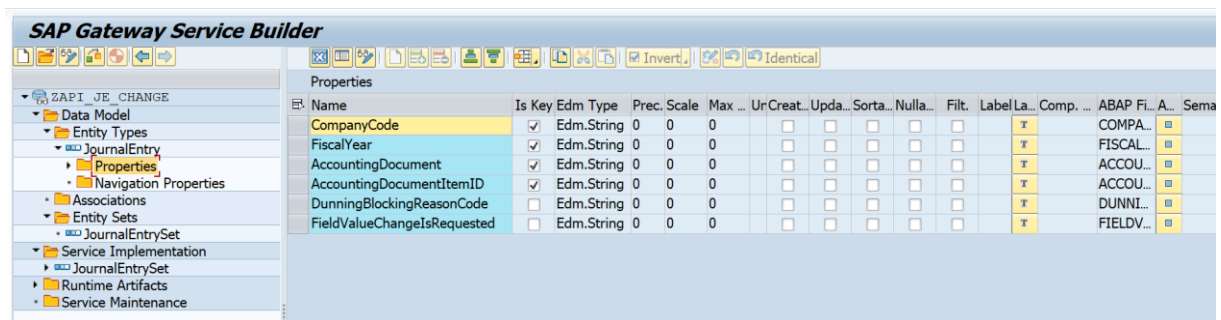
This service is based on the OData protocol and is used to apply and release dunning block to dunning notices generated for uncleared customer invoices.

Method	API	API Path	Purpose
POST	/sap/opu/odata/sap/ZAPI_JE_CHANGE_SRV	/sap/opu/odata/sap/ZAPI_JE_CHANGE_SRV/JournalEntrySet	Apply or Release dunning block

Appendix

Setup service: **/sap/opu/odata/sap/ZAPI_JE_CHANGE_SRV /JournalEntrySet**

1. Go to the **SAP GUI** and enter **SEGW** in the command field to open the **Gateway Service Builder**.
2. In the **Service Builder** screen, click on the "Create Project" button.
3. Enter a name 'ZAPI_JE_CHANGE' for your project in the **Project Name** field. This name should be unique and descriptive.
4. Provide a relevant short description of your project.
5. In the left-hand tree structure, right-click on **Data Model** and choose **Create -> Entity Type**.
6. Give the entity type a name as 'JournalEntry'
7. After creating the entity type, you can add **properties** (fields/attributes) that correspond to the attributes of your data model.



8. After defining entity types and services, generate runtime objects using **Service Builder**, this will generate the necessary classes in the backend.

Runtime Artifacts				
Name	Generated Artifact Type	Program ID	Object Type	Object Name
ZAPI_JE_CHANGE_MDL	Registered Model	▼ R3TR	IWMO	ZAPI_JE_CHANGE_MDL
ZAPI_JE_CHANGE_SRV	Registered Service	▼ R3TR	IWSV	ZAPI_JE_CHANGE_SRV
ZCL_ZAPI_JE_CHANGE_DPC	Data Provider Base Class	▼ R3TR	CLAS	ZCL_ZAPI_JE_CHANGE_DPC
ZCL_ZAPI_JE_CHANGE_DPC_EXT	Data Provider Extension Class	▼ R3TR	CLAS	ZCL_ZAPI_JE_CHANGE_DPC_EXT
ZCL_ZAPI_JE_CHANGE_MPC	Model Provider Base Class	▼ R3TR	CLAS	ZCL_ZAPI_JE_CHANGE_MPC
ZCL_ZAPI_JE_CHANGE_MPC_EXT	Model Provider Extension Class	▼ R3TR	CLAS	ZCL_ZAPI_JE_CHANGE_MPC_EXT

9. Redefine the method “/iwbsp/if_mgw_appl_srv_runtime~create_deep_entity” and add the code within the Method & Endmethod given as below.

```

DATA: BEGIN OF ls_payload.
      INCLUDE TYPE zcl_zapi_je_change_mpc=>ts_journalentry.
DATA :END OF ls_payload.

DATA : ls_je_apar_item TYPE fins_s_apar_item_to_be_changed.
DATA(exception) = NEW /iwbsp/cx_mgw_busi_exception( ).
DATA(msg_container) = exception->get_msg_container( ).

io_data_provider->read_entry_data(
  IMPORTING
    es_data = ls_payload ).

ls_je_apar_item-bukrs = ls_payload-companycode.
ls_je_apar_item-gjahr = ls_payload-fiscalyear.
ls_je_apar_item-belnr = ls_payload-accountingdocument.
ls_je_apar_item-hktid = ls_payload-accountingdocumentitemid. "checkpoint
ls_je_apar_item-mansp = ls_payload-dunningblockingreasoncode.
ls_je_apar_item-chg_mansp = ls_payload-fieldvaluechangeisrequested.

CALL METHOD cl_fins_jour_entry_hdr_itm_chg=>change_all
  EXPORTING
    it_apar_item_to_be_changed = VALUE #( ( ls_je_apar_item ) ) "lt_je_apar_i
tem
  IMPORTING
    ev_update_success          = DATA(lb_is_success)
    et_messages                = DATA(lt_msg).

IF line_exists( lt_msg[ type = 'E' ] ).
  CALL FUNCTION 'BAPI_TRANSACTION_ROLLBACK'.
  LOOP AT lt_msg ASSIGNING FIELD-SYMBOL(<fs_ret>).
    msg_container->add_message(
      iv_msg_type   = /iwbsp/cl_cos_logger=>success
      iv_msg_id     = <fs_ret>-id
      iv_msg_number = <fs_ret>-number
      iv_msg_text   = <fs_ret>-message
      iv_add_to_response_header = abap_true ).
  ENDLOOP.
  RAISE EXCEPTION exception.
ELSE.
  CALL FUNCTION 'BAPI_TRANSACTION_COMMIT'
    EXPORTING
      wait = abap_true.

```

```

LOOP AT lt_msg ASSIGNING <fs_ret>.
  msg_container->add_message(
    iv_msg_type   = /iwbep/cl_cos_logger=>success
    iv_msg_id     = <fs_ret>-id
    iv_msg_number = <fs_ret>-number
    iv_msg_text   = <fs_ret>-message
    iv_add_to_response_header = abap_true ).
ENDLOOP.
er_entity = ls_payload.
ENDIF.

```

10. After implementing the logic, register and activate the service using the **/IWFND/MAINT_SERVICE** transaction and test the service in the SAP Gateway Client (/IWFND/GW_CLIENT).

Support

There is no support available for template content. If you experience general issues with SAP Build Process Automation, please follow the links below:

- [Troubleshoot Support Guided Answer](#)
- [Test an Automation Help portal Article](#)
- [Test an Application Help portal Article](#)
- [Get traces Support Guided Answer](#)

If the issue persists, please raise an incident via SAP Support Portal on **BPI-PA-BPC** component.

This template can be modified using SAP Process Automation. For example: add decisions to determine the approver based on a certain business logic or add an action to post collected information to backend SAP system. Refer [help portal](#) for more details.

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