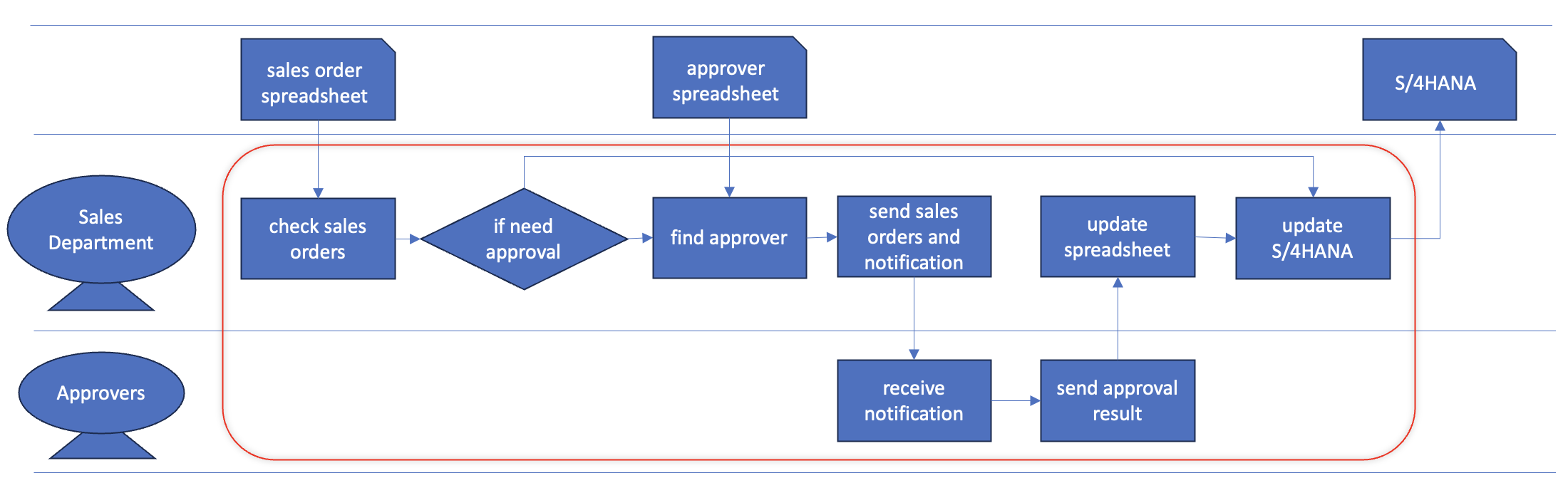
SAP Build Process Automation – Demo Script

# Scenario

Sales Order Management Process 🡪 enhancement:



# Steps

1. Process
2. Condition
3. Decision
4. Automation
5. Visibility

# Pre-requisites

|  |  |  |
| --- | --- | --- |
| Descriptin | Screenshot | Required by which round |
| Prepare the data - excel file | Graphical user interface, application, table, Excel  Description automatically generated | Automation  Condition  Decision Table Rule  Visibility |
| Enterprise Account |  | Process  Automation  Condition  Decision Table Rule  Visibility |
| Booster | ­­ | Build a Simple Process  Automation  Condition  Decision Table Rule  Visibility |
| Desktop Agent <https://tools.hana.ondemand.com/#cloud> |  | Automation  Condition  Decision Table Rule  Visibility |
| Prerequisite: To get insights, follow the steps described here: [SAP Help Portal to setup SAP Launchpad service for SAP Process Automation](https://help.sap.com/viewer/a331c4ef0a9d48a89c779fd449c022e7/Cloud/en-US/3dbbe660fab54eeeb79c844a0de84103.html) | Graphical user interface, application  Description automatically generated  Graphical user interface, application, Teams  Description automatically generated  Graphical user interface, application  Description automatically generated | Visibility |

# [Form] Simple Approval Flow by Creating Process with Forms

Outcome: implement a simple online approval flow. So that the buyer need to ask for approval from supplier and then the order can be shipped. If the supplier reject the order, then it will not be delivered.

Release as 1.0.0

|  |  |
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| Descriptin | Screenshot |
| explore the portal  Lobby   * Create, manage, deploy business processes   Store   * Browse, add and use pre-packaged projects offered by SAP   Monitor   * View and manage specific processes, automation jobs   Settings   * Configure and manage desktop agents, backend settings, API keys   My Inbox   * Displaying processing your tasks |  |
| Create project | |
| Create > build an automated process > business process   |  |  | | --- | --- | | Field | Value | | Project Name | Sales Orders Management | |  |
| Add initiate form | |
| Initiate with form  Click initiate > Form   |  |  | | --- | --- | | Field | Value | | Name | Sales Order Approval Request Form | |  |
| Click three dots in the right, open the form in Form Editor   |  |  |  | | --- | --- | --- | | Type | title | properties | | Headline | Order Approval Request Form |  | | Paragraph | Provide info for approval |  | | Text | Cutomer Name | required | | Text | Order Number | required | | Number | Order Amount | required | | Date | Order Date | required | | Date | Expected Delivery Date | required | | Text | Shipping Country | required |   All marked as Required  Save the form and close the window |  |
| Add approval form |  |
| Create approval form by clicking + in the flow  + > Approvals > New Approval Form   |  |  | | --- | --- | | Field | Value | | Name | Sales Order Approval Form | | Identifier | Auto generated | | Description | anything | |  |
| Open the form in Form Editor and edit the form   |  |  |  | | --- | --- | --- | | Type | Ttitle |  | | Headline | Approve Sales Order |  | | Paragraph | a new order has been received please review and confirm. |  | | Text | Cutomer Name | read-only | | Text | Order Number | read-only | | Number | Order Amount | read-only | | Date | Order Delivery Date | read-only | | Checkbox | I acknowledge that we have received your order and … | required | | Text Area | Message to buyer: | required |   All the fields marked as Read Only are retrieving their values from the initiative Sales Order Approval Request Form. | 🡪 |
| Fill in the mandatory properties, choose properties from Process Content, which is the metadata of the process or the previous steps in the process.  In General tab:   |  |  | | --- | --- | | Field | Value | | Subject |  | | Users |  |   In Inputs tab:   |  |  | | --- | --- | | Field | Value | | Customer Name |  | | Order Amount |  | | Order Delivery Date |  | | Order Number |  |   You can only from process content the properties that have the data type or convertible data type.  Click save. |  |
| Add Sales Order Approval Notification Confirmation Form | |
| Add notification form   |  |  | | --- | --- | | Name | Sales Order Approval Confirmation |   Edit it   |  |  |  | | --- | --- | --- | | Type | Ttitle |  | | Headline | Order Approved |  | | Paragraph | Your order has been received and accepted for delivery. we will send you the details as soon as the order is shipped. you can find review and verify your request: |  | | Text Area | Message from the supplier: | read-only | | Text | Order Number | read-only | | Number | Order Amount | read-only | | Date | Expected Delivery Date | read-only |   Mark all fields Read Only. |  |
| fill in the required properties, and map the read-only fields to the previous properties in Process Content. |  |
| Rejection notification form | |
| Create   |  |  | | --- | --- | | Name | Sales Order Rejection Confirmation |   Edit it   |  |  |  | | --- | --- | --- | | Type | Ttitle |  | | Headline | Order Rejected |  | | Paragraph | Your order has been received and accepted for delivery. we will send you the details as soon as the order is shipped. you can find review and verify your request: |  | | Text Area | Message from the supplier: | read-only | | Text | Order Number | read-only | | Number | Order Amount | read-only | | Date | Expected Delivery Date | read-only |   Mark all fields Read Only |  |
| Map |  |
| Remember to connect the outgoing flow of the form to end point |  |
| Release and deploy the process | |
| Check errors in design console |  |
| Release a version  version comment: first release |  |
| Deploy |  |
| Run  Get the url in deployed project: open the Process in the deployed project > click the form in trigger > copy the form link and open it in browser |  |
| Fill in the request form, (the value can be copied from the excel file)   |  |  | | --- | --- | | Customer name | Test Customer 3 | | Order number | PO7991 | | Order amount | 410418.22 | | Order date | 1/21/2022 | | Expected delivery date | 1/29/2022 | | Shipping country | United States of America | |  |
| go to My Inbox:  As the person initiate the workflow, you will receive two notification in total, first one is to ask you to approve it, and second one is to inform you about approval result. You need to confirm both the the forms to complete the entire workflow. |  |
| Monitor the process | |
| Trigger a flow first  Open the Monitor tab > Process and Workflow Instances > |  |
| to see the completed workflow instance > status > select all |  |

# [Condition] Determine auto approval by adding condition

Outcome: if the order amount is under 100,000 then the order can be automatically approved, otherwise still need supplier to aprove it

Release as 1.1.0

|  |  |
| --- | --- |
| Descriptin | Screenshot |
| insert condition after automation, make sure the default branch (when the auto-approval condition doesn’t meet) connects to the current path (approval form) |  |
| Add new condition  Criteria: Order amount < 100000  If true – New automatic approval form |  |
| in if branch (meets the condition), Add Auto Approval Notification from:   |  |  | | --- | --- | | name | Auto Approval Confirmation |   connect it directly to the end activity |  |
| edit the form:   |  |  |  | | --- | --- | --- | | Type | Ttitle |  | | Headline | Auto Approval |  | | Paragraph | your order is automatically approved. |  | | Text | Order Number | read-only | | Number | Order Amount | read-only | | Date | Expected Delivery Date | read-only | |  |
| Fill in the mandatory properties of the form  save |  |
| save > release > deploy |  |
| Test with the sales order:   |  |  | | --- | --- | | Customer name | Test Customer 3 | | Order number | PO6368 | |  |
| Check My Inbox | you will receive a notification of sales order beening automatically approved, right after the request form submission. |
| Monitor the workflow instance |  |

# [Decision] Determine which supplier person should be the approver

Outcome: for the order exceeding 100,000 and need approvals from suppliers, the flow will decide on which supplier is the approver by shippng country and order amount.

Release as 1.2.0

|  |  |
| --- | --- |
| Descriptin | Screenshot |
| Create Data Type |  |
| Lobby > click into one Project > Create > Data Type |  |
| First data type: Sales Order |  |
| second data type: Approver   |  |  | | --- | --- | | Name | Approver | | Fields | |  |  | | --- | --- | | Name | Type | | Email | String | | UserGroup | String | | |  |
|  |  |
| Add decision |  |
| when not auto-approved, add decision   |  |  | | --- | --- | | name | Determine Approver | |  |
| add input parameters |  |
| set the Type of Output to be the newly created data type, Approver |  |
| Click decision to add rule |  |
| Create decitions table rules:   |  |  |  |  | | --- | --- | --- | --- | | **Shipping Country** | **Order Amount** | **User Group** | **Email** | | India, Germany | Between 100,000 to 300,000 | A | sindy.zhan@sap.com | |  | Greater than 300,000 | B | sindy.zhan@sap.com |   Step 1:  Choose Rule Type: Decision Table  Rule Name: Determine approver |  |
| Step 2:   * Conditions: input 🡪 shipping country and order amount |  |
| Step 3:   * Results: output 🡪 user group and email (from the data type) |  |
| Step 4: preview  Click Create |  |
| Add rows in the table: it will match the first row and if first row is not satisfied then go to the second row.  add first row  select first row > add row > insert after  add second row  The value (row)   |  |  |  |  | | --- | --- | --- | --- | | **Shipping Country** | **Order Amount** | **User Group** | **Email** | | EXISTSIN ['India', 'Germany'] | IN [100000 .. 300000] | 'A' | 'sindy.zhan@sap.com' | |  |  | 'B' | 'sindy.zhan@sap.com' | | First row    Second row    Final |
| it looks like |  |
| Back to process  Map the input with process content |  |
| Select the receipient of the approval form next to the decision, match the recipients of it to the ones returned from the decision table:  Users >  Groups > |  |
| Release and deploy and run and monitor | |
| save > release > deploy |  |
| test   |  |  | | --- | --- | | Customer name | SAP S4 | | Order number | PO3115 | |  |
| monitor | if you check the context of the workflow instance, it will be sent to UserGroup 'A', becaues it is between 100,000 and 300,000 and shipped to Germany |

# [Automation] Auto retrieve sales order data by order number

Outcome: After buyer inputs the order number in the request form to trigger the approval process, the rest of the information needed can be automatically retrieve from the spreadsheet, instead of sales department colleague manually input all the fields.

Release as 1.3.0

|  |  |
| --- | --- |
| Descriptin | Screenshot |
| Register desktop agent | |
| Install,  Start,  Select about icon, make sure the agent is idle, check the version | A screenshot of a computer  Description automatically generated |
| Set the mode as unattended mode:  Setting > Mode Settings > Unattended Mode > Activate |  |
| Register:  Go to application development web ui > settings > agents > register new agent > copy and close |  |
| go to desktop agent > cloud > add tenant > fill in the name > paste what has been copied from the sap build web ui in Domain > save | A screenshot of a computer  Description automatically generated with medium confidence |
| Activate it, and it will open the web ui in browser > click update icon > check the newly registered agent is there |  |
| Allow agent to run automation jobs:  still in web ui, Go to agent management > add agent > select your just-registered agent and add it |  |
| Create automation | |
| Open the project  Add automation after the trigger form, choose to Create new automation  Select version of our agent ([SAP Process Automation: Desktop Agent 3 for Trial](https://tools.hana.ondemand.com/#cloud), 3.9.47 🡪 choose version 3.9),  Fill in with   |  |  | | --- | --- | | Name | Get Order Details |   Open it in Automation Editor |  |
| Explore automation editor   * The Toolbar * The Workflow * The Right-Side Panel * The Console | Graphical user interface  Description automatically generated |
| Get data from excel file and create variable out of it | |
| Search for the components “open excel instance” and drag and drop |  |
| Search for the component “excel cloud link” and drag and drop | A screenshot of a computer  Description automatically generated with medium confidence |
| Select “excel cloud link”, Upload the excel file to it, see the data is automatically detected, |  |
| Click the gear icon on the top-right,  Create an environment variable in the project as file path   |  |  | | --- | --- | | Identifier | Ordersfilepath | | Type | String |   Set it as the “Workbook Path” | A screenshot of a computer  Description automatically generated with medium confidence |
| For Data Type, choose the one we created “Sales Order” | 🡪 |
| Remember to modify the data format of a field if they are not correctly detected, e.g. two dates  If not down so now, you can go to data type to do it later after creation | A screenshot of a computer  Description automatically generated with low confidence |
| Set up output parameters for “Excel Cloud Link”, change its name from returnedValues to “orders” | A screenshot of a computer  Description automatically generated with low confidence |
| Insert:  Close excel instance |  |
| Loop the variable and find the sales order that matches the id that flow initiator fills | |
| Insert activity “Create sales order variable”:  search for “sales order”, and drag and drop,  Select it,  rename the output paramters into “selectedOrder” | A screenshot of a computer  Description automatically generated with low confidence |
| Add Control: in the right-panel, search for the tool “for each”, and drag and drop it to the workflow,  Set looping list: orders | 🡪A screenshot of a computer  Description automatically generated with low confidence |
| Set the input/output of the automation   |  |  |  | | --- | --- | --- | | Input or output | Name | Type | | Input parameters | orderNumber | String | | Output parameters | selectedOrder | Sales Order | |  |
| Add Control: search and drag and drop “condition”,  click the three dots under condition expression > Edit formula |  |
| Edit formula:  Step0.OrderNumber===Step5.currentMember.orderNumber  The value can be selected underneeth  test it and save it | A screenshot of a computer  Description automatically generated with low confidence |
| Set variable value  Set variables to (select from drop-down list)   |  |  | | --- | --- | | Variable | selectedOrder | | Value | currentMember | |  |
| Add “loop end” to the control if branch |  |
| Add “Log Message” before the end,  Set message to selectedOrder | A screenshot of a computer  Description automatically generated with medium confidence |
| Select End Automation activity,  Set the output parameter to: selectedOrder  save the automation |  |
| Go back to the process,  Select the automation,  Set the input parameter’s value as Order Number  Save the process | A screenshot of a computer  Description automatically generated with medium confidence |
| Test automation | |
| (in windows os with the desktop agent installed) Test it:  Click test  Input parameters and environment variables:   |  |  | | --- | --- | | Order number | PO7991 | | Orderfilepath | C:\Users\I505432\Downloads\Sales Orders Data.xlsx | | A screenshot of a computer  Description automatically generated with medium confidence |
| Simplify the trigger request form and redirect the input of the following steps | |
| [request form] Open the trigger form  delete fields that are included in the excel file, so we now only have customer name and order number  save | A screenshot of a form  Description automatically generated with medium confidence |
| [condition] change in condition editor |  |
| [decision] |  |
| [approval form] Open the approval form to map the value to the output of automation |  |
| [Notification forms] Do the same to the rest of two forms:  Order confirmation notification  Order rejection form  Save the process | A screenshot of a computer  Description automatically generated with low confidence A screenshot of a computer  Description automatically generated with low confidence |
| Release and deploy the project | |
| Release |  |
| Deply it:  Set runtime variable:   |  |  | | --- | --- | | orderFilePath | C:\Users\I505432\Downloads\Sales Orders Data.xlsx |   Next  Deploy | A screenshot of a computer  Description automatically generated with medium confidence |
| Run:  (Before run, remember to check if the Desktop Agent is in unattended mode, not in design mode)  Click into the deployed process > select trigger > general > form link > copy it and paste it to the browser > fill in customer name and order number:   |  |  | | --- | --- | | Customer name | Test Customer 2 | | Order number | PO7991 | | A screenshot of a computer  Description automatically generated with medium confidence |
| Monitor:  Two ways to check if the automation job is completed:  Way 1: Monitor > Automation jobs  Way 2: Monitor > process and workflow instances | Automation Jobs:    Workflow Instance: |

# [Visibility] Configure Visibility in a dashboard

Outcome: the status of the orders in the approval process can display in a dashboard.

|  |  |
| --- | --- |
| Descriptin | Screenshot |
| Prepare the process to be consumed | |
| Open process |  |
| Add visibility > click here to choose attributes | A screenshot of a phone  Description automatically generated with medium confidence |
|  | A screenshot of a computer  Description automatically generated with medium confidence |
| Create visibility |  |
|  | A screenshot of a computer  Description automatically generated with medium confidence |
| input the name | A screenshot of a computer  Description automatically generated with medium confidence |
| add a process, auto detect the context | A screenshot of a computer  Description automatically generated with medium confidence  A screen shot of a computer  Description automatically generated with low confidence |
| change the data type of the context field (default all string) | A screenshot of a computer  Description automatically generated with medium confidence |
| go to status tab  target type: contant,  target value: 5 min  threshold: 50% | A screenshot of a computer  Description automatically generated with medium confidence  A screenshot of a computer  Description automatically generated with medium confidence |
|  |  |
| performance indicators |  |
| Release and deploy  Start the job/event process??? |  |
| Go to monitor manage > visibility scenarios | A screenshot of a computer  Description automatically generated with medium confidence |
| Run the process and get the insights | A screenshot of a computer  Description automatically generated with medium confidence |
|  |  |