Hands-on Tutorial: Creating the end-to-end scenario

# Scenario

In the last session of Learning Journey [Experiencing End-To-End SAP Build](https://learning.sap.com/learning-journeys/experiencing-end-to-end-sap-build): <https://learning.sap.com/learning-journeys/experiencing-end-to-end-sap-build/exercise-creating-the-end-to-end-szenario>

The goal of this exercise is to create a process with two flows and publish it in the SAP Build Library for SAP Build Apps to trigger. Key variables include a name (e-mail via system variable from the SAP BTP user) and the current date (using a Formula function). Also, they include the selection of three SAP Build products (SAP Build Apps, SAP Build Process Automation, SAP Build Work Zone). If all three products are selected, autoapproval occurs. If any product is not selected, the request goes to a manager for approval or rejection, checked in My Inbox.

# Prerequisites

To access to the Training System, you will need to apply for the SAP Build Basic Trial here on this [SAP Build Basic Trial registration page.](https://www.sap.com/registration/trial.514a6f3d-3524-4bda-b510-fa63594188d1.html?source=learning_sapbuild_btp04_2410)

<https://www.sap.com/products/technology-platform/build/trial.html>

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Please remember your user ID because you will need to include it in all the title of the projects you build in the trial environment.

# Steps

## SAP Build Process Automation

Create the Certification Registration Process in SAP Build Process Automation.

~~Certification Registration - GE147106~~

Certification Registration - GE147601

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| Steps | Screenshots |
| Create the Certification Registration Process in SAP Build Process Automation. | |
| Create Process Automation project:   1. click Create button | A screenshot of a web page  AI-generated content may be incorrect. |
| Create Process Automation project:   1. choose Build an Automated Process | A screenshot of a computer  AI-generated content may be incorrect. |
| Create Process Automation project:   1. choose Business Process | A screenshot of a computer  AI-generated content may be incorrect. |
| Create Process Automation project:   1. enter project name and description. Remember to add your user name in the project name 2. click Create | A screenshot of a computer  AI-generated content may be incorrect. |
| Create Process |  |
| Add Process Input variables | |
| Add Process Input variables:   1. open Process Details |  |
| Add Process Input variables:   1. add the inputs by editing their name and type, 2. click Apply   Inputs Variables   | Name | Type | | --- | --- | | User | String | | Date | String | | SAP Build Process Automation | Boolean | | SAP Build Apps | Boolean | | SAP Build Work Zone | Boolean | |  |
| Add API Trigger | |
| Add API Trigger:   1. click “+” in the trigger 2. choose API Trigger |  |
| Add API Trigger:   1. enter Name 2. click Create |  |
| Add API Trigger:   1. you will see process inputs are in trigger outputs |  |
| Add condition | |
| Add condition:   1. click + 2. choose Controls and Events |  |
| Add condition   1. open Condition Editor |  |
| Add condition   1. add three conditions, by choosing SAP Build Apps, SAP Build Process Automation and SAP Build Work Zone from the input, and the value choose true 2. click Apply |  |
| Add and edit Auto Approval Notification form | |
| Add and edit Auto Approval Notification form:   1. add Form to If branch |  |
| Add and edit Auto Approval Notification form:   1. enter Name 2. click Create |  |
| Add and edit Auto Approval Notification form:   1. click the three dots … 2. click Open Editor |  |
| Add and edit Auto Approval Notification form:   1. drag and drop the Header and Paragraph 2. enter the contents 3. click Save |  |
| Add and edit Auto Approval Notification form:   1. configuring General information 2. choose Process Inputs>Name in the subject |  |
| Add and edit Auto Approval Notification form:   1. choose Process Metadata > Process Started By to Recipents > Users |  |
| Add and edit Approval Form | |
| Add and edit Approval Form:   1. add Approval from in Default branch |  |
| Add and edit Approval Form:   1. drag and drop the Header field and pararaph field 2. drag and drop fields to display process inputs, and mark them as read-only:  |  |  | | --- | --- | | **Field Name** | **Field Type** | | Name | Text | | SAP Build Apps | Checkbox | | SAP Build | Checkbox | | SAP Build | Checkbox | | Current date | Text | |  |
| Add and edit Approval Form:   1. configurate the General attributes of the approval form 2. add Process Inputs>Name in the attribute Subject 3. add Process Metadata > Process Started By to attribute Recipents > Users |  |
| Add and edit Approval /Rejection Notification forms | |
| Add and edit Approval /Rejection Notification forms:   1. add Approval Notification form under the Approve branch of the approval from |  |
| Add and edit Approval /Rejection Notification forms:   1. drag and drop the Header to the form, and enter the contents |  |
| Add and edit Approval /Rejection Notification forms:   1. configurate the General attributes of the form 2. a add Process Inputs>Name in the attribute Subject 3. add Process Metadata > Process Started By to attribute Recipents > Users |  |
| Add and edit Approval /Rejection Notification forms:   1. add Rejection Notification form under the rejection branch 2. edit the form, just like approval notification form |  |
| Add and edit Approval /Rejection Notification forms:   1. configurate the General info, just like approval notification form |  |
| Save, release, deploy and publish the process | |
| Save it |  |
| Release it |  |
| Go to the released version, Deploy it |  |
| Go back the the SAP Build Lobby, find the deployed version of the project, click “Publish to Library” |  |

## SAP Build Apps

Certification Registration App - GE147601

<https://sap-build-eu10-trial-2.launchpad.cfapps.eu10.hana.ondemand.com/buildapps182219.buildapps182219/index.html>

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| Steps | Screenshots |
| Develop the UI | |
| Create a Build Apps project.   1. Go to the Lobby, click Create. 2. Choose Buld an Application. | A screenshot of a computer  AI-generated content may be incorrect. |
| 1. Choose SAP Build Apps. | A screenshot of a computer program  AI-generated content may be incorrect. |
| 1. Choose Web&Mobile Application. 2. Enter the Name of the project, with your user name in it, for instance: Certification Registration App - USERNAME | A screenshot of a computer  AI-generated content may be incorrect. |
| Add and edit page title:   1. Drag-and-drop the Title UI component to the UI Canvas |  |
| 1. Change title text 2. Choose Style > Style Class > content primary heading |  |
| 1. Edit the style: click Edit > select Text XXL as Text size |  |
| Delete component Text 1 |  |
| Set Home page:   1. In Style tab > change background color: Secondary background |  |
| Set Home page:   1. Unfold Advanced: check Disable scrolling |  |
| Add image component:   1. Drag and drop the image component to the canvas |  |
| Add image component:   1. Upload image source from local |  |
| Add image component:   1. Choose the image uploaded 2. Click Use Image |  |
| Add image component:   1. Set the size of image, by going to Layout > Width and Height > Exact Size, fill in 500. |  |
| Add container component:   1. Drag-and-drop the container component |  |
| Add container component:   1. Set Style as Primary Card |  |
| Add Text component onto the container:   1. Drag-and-drop the Text component onto the container 2. Change text content: Which learning journeys have you completed? |  |
| Add Text component onto the container:   1. Text style: primary paragraph |  |
| Add Text component onto the container:   1. Change text color, text size and font weight |  |
| Add three checkboxes:   1. Drag-and-drop three checkboxes in the container 2. change their labels to: SAP Build Apps, SAP Build Process Automation and SAP Build Work Zone |  |
| Add three checkboxes:   1. set all checkboxes’ Value: false |  |
| Add a button, change the label to: Registration.  Save the changes. |  |
| Create data and integration | |
| Create page variables:   1. go to Variables tab 2. add three page variables  |  |  | | --- | --- | | **Variable name** | **Variable value type** | | Apps | True/false | | PA | True/false | | WZ | True/false | |  |
| Add integration:   1. go to Integrations tab 2. click Add Integration |  |
| Add integration:   1. go to SAP Build Library by clicking Library |  |
| Add integration:   1. search the deployed process by username |  |
| Add integration:   1. choose the process, enable the process |  |
| Add Logics | |
| Set page variables when selecting checkboxes:   1. go back to User Interface 2. choose one of the checkboxes 3. unfold the Logic Canvas 4. drag-and-drop the Set page variable flow function onto the Logic Canvas 5. link the output of Event|Component onChange node to the input of Set page variable node. |  |
| Set page variables when selecting checkboxes:   1. set Properties of the Set page variable node 2. bind the page variable to the node’s Variable name 3. set the Assigned value to True |  |
| Set page variables when selecting checkboxes:   1. to bind the page variable, click Variable name and open the binding wizard 2. in the wizard, click Page variable 3. choose from three page variables 4. click Save |  |
| Add Confirm flow function to Registration button:   1. Select Registration button 2. Connect the Event|Compoment tab node to dialog |  |
| Add Confirm flow function to Registration button:   1. Dialog message: Do you feel prepared for the certification? 2. Confirm button label: yes   Cancel button label: no |  |
| Add Trigger process, connect the Confirm node to Trigger process node. |  |
| Choose the integrated certification registration process as the process. |  |
| Set the Input Parameters: |  |
| Set the Input Parameters > set Name: |  |
| Set the Input Parameters > set Name:  a. Choose System variable |  |
| Set the Input Parameters > set Name:  b. choose Currently logged in user |  |
| Set the Input Parameters > set Name:   1. Choose email 2. Click Save |  |
| Set the Input Parameters > set Current date:  a. choose binding type Formula |  |
| Set the Input Parameters > set Current date:  b. create formula |  |
| Set the Input Parameters > set Current date:  c. find in Functions> Date > NOW() > Save |  |
| Set the Input Parameters > set SAP Build Apps, or SAP Build Process Automation or SAP Build Work Zone:  a. choose binding type to be Data and Variables |  |
| Set the Input Parameters > set SAP Build Apps, or SAP Build Process Automation or SAP Build Work Zone:  b. click Page variable |  |
| Set the Input Parameters > set SAP Build Apps, or SAP Build Process Automation or SAP Build Work Zone:  c. choose Apps/PA/WZ  d. click Save |  |
| Click save |  |
| Add Dialog|Alert flow function.  Dialog title: We forwarded your registration. Check out the My Inbox in the SAP Build Lobby. |  |
| Add Open URL flow function:  Go to Marketplace  Search for open url  Select the flow function and Install. |  |
| In Installed tab, find the installed flow function, and drag-and-drop it onto logic canvas.  Connect it to the second output port of Confirm node. |  |
| Set URL to open: https://learning.sap.com |  |
| Preview, Test and Monitor | |
| Click Preview on the upper-right corner.  Click Open web preview. |  |
|  |  |
| Search by your username, and select your app to open it. |  |
| Test it. |  |
| Go to My Inbox by clicking the inbox icon on the upper-right corner in the SAP Build portal (Lobby). |  |
| Inbox task - auto approval notification |  |
| Inbox task - management approval notification |  |
| Inbox task - rejection notification |  |
| Monitoring:  Go to Monitoring menu > click Process and Workflow Instances tile > select the process instance > you will see the logs and context of the instance. |  |
| Build and deploy | |
| Click Publish > Create a Release Version.  Click Publish > Build and Deploy. |  |
| Create build configuration. |  |
| Click SAP Build Work Zone. |  |
| Enter the name and click Create. |  |
| Build using the configuration. | 🡪 |
| Click into the build artifact. |  |
| Deploy the app as a web app on Cloud Foundry:   1. Click Deploy |  |
| Deploy the app as a web app on Cloud Foundry:   1. After choosing Deploy, select the **API Endpoint (you can find which to choose in your learning journey)** from the dropdown. 2. Choose Login with BTP |  |
| Deploy the app as a web app on Cloud Foundry:   1. You will be prompted to sign in to the deployment environment (Cloud Foundry). Enter **academy-platform** and choose the Sign in with *alternative identity provider*button. |  |
| Deploy the app as a web app on Cloud Foundry:   1. Choose Authorize. |  |
| Deploy the app as a web app on Cloud Foundry:   1. Once signed in, select the Cloud Foundry organization and space as suggested in your learning journey and then choose Continue |  |
| Remember the URL of your deployed app. |  |

## SAP Build Work Zone

**Certification Registration - GE147601**

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| Steps | Screenshots |
| Create a SAP Build Work Zone workspace and add your generated user name to the title. | |
| Go to the SAP Build Lobby.  Select: Create > Manage Workpages and Workspaces |  |
| The SAP Build Work Zone business site is opened.  Click New Workspace to create a workspace. |  |
| Select Public Workspace. |  |
| set the name with your user name in it.  Click Finish. |  |
| in new workspace, click the edit button on the right, to open the workpage editor. |  |
| Add section.  Add a widget. |  |
| Click Cards, to integrate the app as a card. |  |
| Select Web Content Card. |  |
| Set Target URL of the Embedded Content = the URL that your app deployed to.  Set Height = 900. |  |
| Publish the change. |  |
| Test again. |  |