

# **Using Activities**

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## Activities

Activities provide a layer of abstraction to workflow input variables. The abstraction helps you to efficiently execute any administration scenario (such as tenant onboarding or application deployment) by separating the specification of a workflow from its actual implementation. Using activities, you can do the following:

- Define the input properties for a workflow and associate those properties with one or more workflows. Then, depending upon a matching condition, the activity triggers the correct workflow.
- Use an activity as a workflow task, making the task usable in multiple similar but differently implemented use case scenarios.
- An activity can be either triggered programmatically or by providing inputs dynamically.

### **Creating an Activity**

You create an activity by defining inputs and outputs. To create an activity:

Step 1	Choose Orchestration.
Step 2	On the Orchestration page, click Activities.
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- Step 3 Click Add.
- **Step 4** On the Add Activity screen, complete the following fields:

Name	Description
Name	The activity name.

Name	Description
Label	A display label for the activity.
Description field	A description of the activity.

#### Step 5 Click Next.

#### Step 6 On the Add User Inputs screen, click (+) Add to add workflow input properties.

a) On the Add Entry to Input Fields screen, complete the following fields:

Name	Description
Input Name	The name of the activity workflow input.
Input Label	The label for the activity workflow input.
Optional	Check <b>Optional</b> to make the input optional during workflow execution.
Input Type	Click Select. Choose the input type.

b) Click Submit.

#### Step 7 Click Next.

- **Step 8** On the Add User Outputs screen, click the (+) Add to add workflow output properties.
  - a) On the Add Entry to Output Fields screen, complete the following fields:

Name	Description
Output Name	The name of the activity workflow output.
Output Label	A display label for the activity workflow output.
Output Type	Click <b>Select</b> . Choose the output type.

- b) Click Submit.
- Step 9 Click Submit.

### Associating an Activity with a Workflow

You can associate an activity with one or more workflows to run the activity as part of the workflow. The associated activity is displayed as a custom workflow task in the System Activity Tasks folder of the Workflow Designer.

#### Before you begin

You have an activity and at least one workflow that is to include the activity. For more information about how to create an activity, see Creating an Activity, on page 1.

- Step 1 Choose Orchestration.
- **Step 2** On the **Orchestration** page, click **Workflows**.
- Step 3 Click Add Workflow.
- **Step 4** On the Add Workflow screen, complete the following fields:

Name	Description
Workflow Name	The workflow name.
	Note         Workflow names cannot contain the following characters: $ ", \%, \&, ', *, +,, /,, /,, ;, <, =, >, ?, ^,  .  $
Description	A description of the workflow.
Workflow Context	Choose the context in which the workflow can be used. Orchestrator supports the following options:
	• Any—Enables you to use the workflow in any context.
	• Selected VM—Enables you to execute the workflow only when you choose a VM.
Save as Compound Task	Check <b>Save as Compound Task</b> to define the workflow as a compound task.
Place in New Folder	Check <b>Place in New Folder</b> to assign the workflow to a new folder. The <b>Folder Name</b> field replaces the <b>Select Folder</b> drop-down list. Type a name for the new folder.
Select Folder	Choose the folder into which you want to place the workflow.
Notify status of execution to initiating user	Check <b>Notify status of execution to initiating user</b> to notify the user through email of the execution status of the workflow. If checked, enter the additional email addresses in the <b>Additional User(s) to send Email Notification</b> field. The execution status for the workflow can be one of the following:
	• Completed status
	• Failed execution status
	• Cancelled execution status

Step 5 Click Next.

**Step 6** On the Add User Inputs screen, check Associate to Activity.

**Step 7** From the Activity drop-down list, choose an activity.

The user input table is updated based on the selected activity.

Step 8 Click Next.

On the Add User Outputs screen, the user outputs are displayed based on the selected activity.

#### Step 9 Click Submit.

A workflow is created and is available in the Workflows report.

### Adding an Activity to a Workflow

An activity that is associated with one or more workflows is displayed as a custom workflow task in the **System Activity Tasks** folder of the Workflow Designer. Drag-and-drop the selected activity onto the **Workflow Designer** work area to add it to a workflow. Define the condition for controlling execution of workflows associated with an activity in the **Context Input** table of the workflow.

#### Before you begin

Associate an activity with a workflow so that the activity is displayed as a custom workflow task in the **System** Activity Tasks folder of the Workflow Designer. For more information about how to associate an activity with a workflow, see Creating an Activity, on page 1.

Open the workflow in the Workflow Designer.

- **Step 1** Choose the activity from the **System Activity Tasks** folder.
- Step 2Drag-and-drop the selected activity onto the Workflow Designer work area.<br/>The Add Task page appears.
- **Step 3** In the **Task Information** screen, complete the following fields:

Name	Description
Task Name	The name of the task.
Task Category	The name of the task category (preselected information).
Task Type	The name of the type of task (preselected information).
Comments	Enter more task information.
Retry Execution	Check <b>Retry Execution</b> to retry a task (later) if the task fails. This feature is useful when the state of a resource is not available and a retrial of the task depends on the state.
Retry Count	Choose the number of retry attempts.
Retry Frequency	Choose the duration between retry attempts. The workflow remains on the failed task until the task succeeds or until it fails Retry Frequency number of times. It then proceeds to the next task or completion of the workflow.

Step 4 Click Next.

The User Input Mapping screen displays the inputs that are defined for the activity.

**Step 5** Check **Map to User Input** to use the corresponding input in the workflow.

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**Step 6** In the **Context Input** table, click (+) **Add** to add a contextual input:

a) In the Add Entry to Input Fields dialog box, complete the following fields:

Name	Description
User Inputs	Choose an input to which to apply the condition.
Minimum Condition list	Choose the condition that you want to apply to the input.
Value	The value set for the condition.
Associated Workflow list	Choose a workflow to execute when the input satisfies the selected condition.

- b) Click Next.
- **Step 7** Click **Revalidate** to validate the current values.
- Step 8 Click Next.
- The User Output Mapping screen displays the outputs that are defined for the activity.
- **Step 9** Check **Map to User Output** to use the corresponding output in the workflow.
- Step 10 Click Submit.

### **Importing and Exporting Activities**

You can import and export activities using the **Import** and **Export** actions you use to import and export workflows, custom tasks, and script modules.

To import an activity, see Importing Workflows, Custom Tasks, Script Modules, and Activities.

To export an activity, see Exporting Workflows, Custom Tasks, Script Modules, and Activities.

### **Deleting an Activity**

You can delete an activity.

- Step 1 Choose Orchestration.
- **Step 2** On the **Orchestration** page, click **Activities**.
- **Step 3** Select the activity to delete.
- Step 4 Click Delete.
- The **Activity** screen appears to confirm deletion of the activity.
- Step 5 Click Delete.