

PUBLIC

Build a Workflow from Scratch with SAP Cloud Platform Workflow Management

DEV163

Exercise 3 | Process Visibility
Archana Shukla / SAP

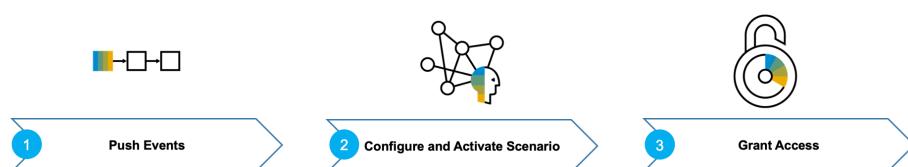
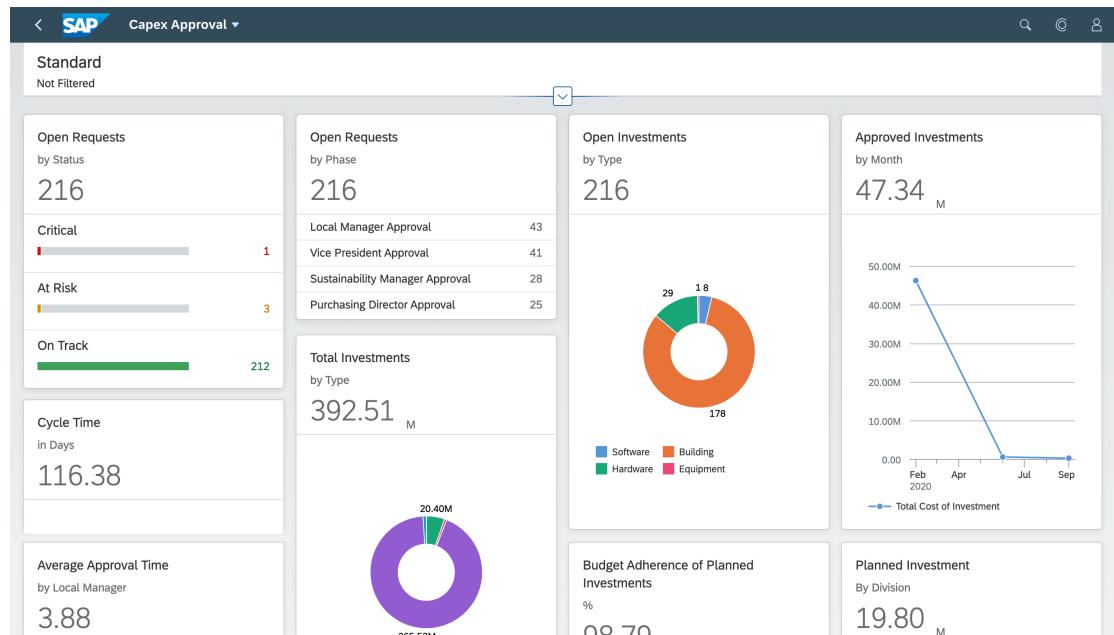
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OVERVIEW

Estimated time: 60 minutes

Process Visibility service offers the capabilities to monitor and track the business processes and key business KPIs in real-time so that the business users can identify real time operational inconsistencies of the ongoing process that helps them to take better tactical day-to-day decisions. In this exercise, you will create the visibility scenario to track capital expenditure approval process and learn how it helps to get the real-time insight into the operational progress and business KPIs using customized workspace.



- 1 Push Events
 - Push Events in a prescribed format
- 2 Configure and Activate Scenario
 - Use the Configure Scenario Application to
 - Create a Scenario
 - Configure Process Participants with events & context
 - Configure Correlation between process participants
 - Configure State, Status, Sub-Status, Attributes, Actions, Target and Phases
 - Configure Process Performance Indicators for the process workspace
 - Activate Scenario
- 3 Grant Access
 - Create a tile in Fiori Launchpad and grant access to interact with the process workspace

In this exercise, you will learn how to:

1. *Configure & Activate a visibility scenario.*
2. *Define correlation between process participants.*
3. *Configure phases and process performance indicators.*
4. *View events that have been acquired by process visibility service.*
5. *Process acquired events.*
6. *Access process workspace to track end to end process in real-time.*

CREATE A VISIBILITY SCENARIO

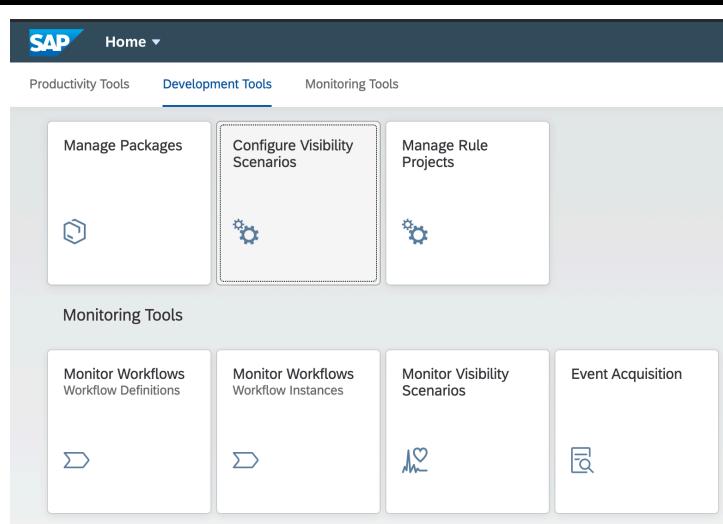
Explanation

Screenshot

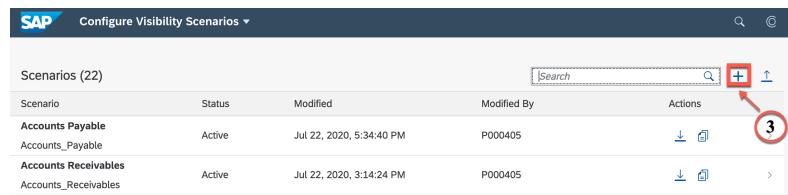
If you have not executed *Exercise 1 on Workflow* and are coming directly to execute this exercise then you have to first import and deploy the workflow in your account.

To do so, follow the Appendix | Import and Deploy Sample Workflow.

1. Open **Workflow Management Launchpad** using your trial username and password.
2. Click to open Create Visibility Scenarios.



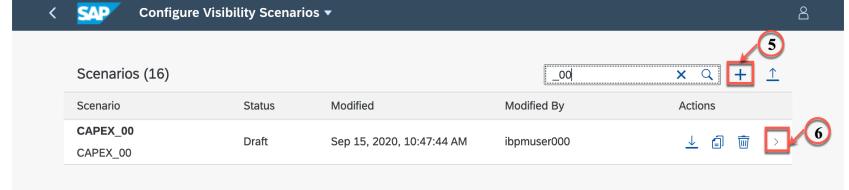
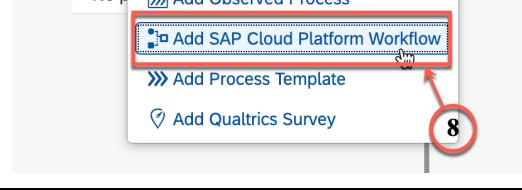
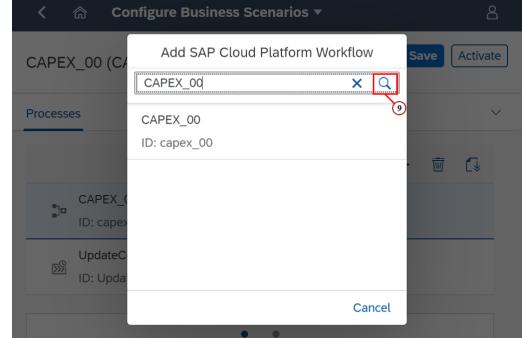
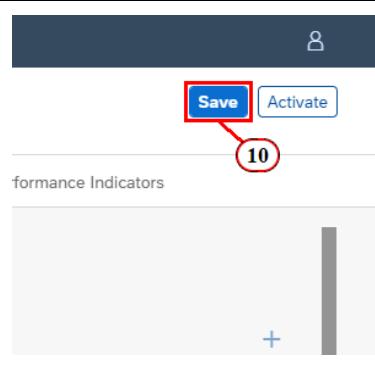
3. Click to add a new visibility scenario



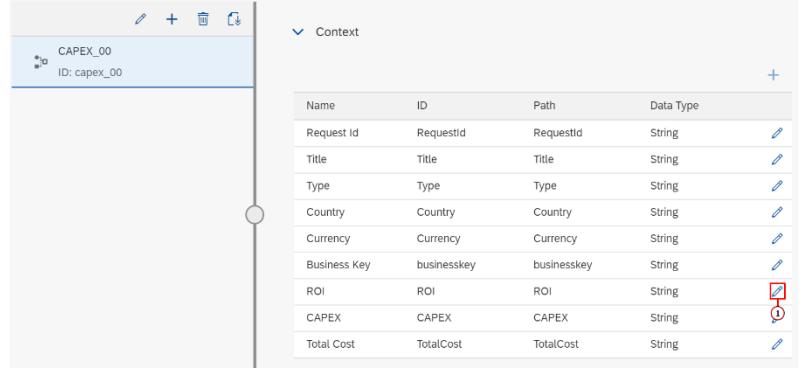
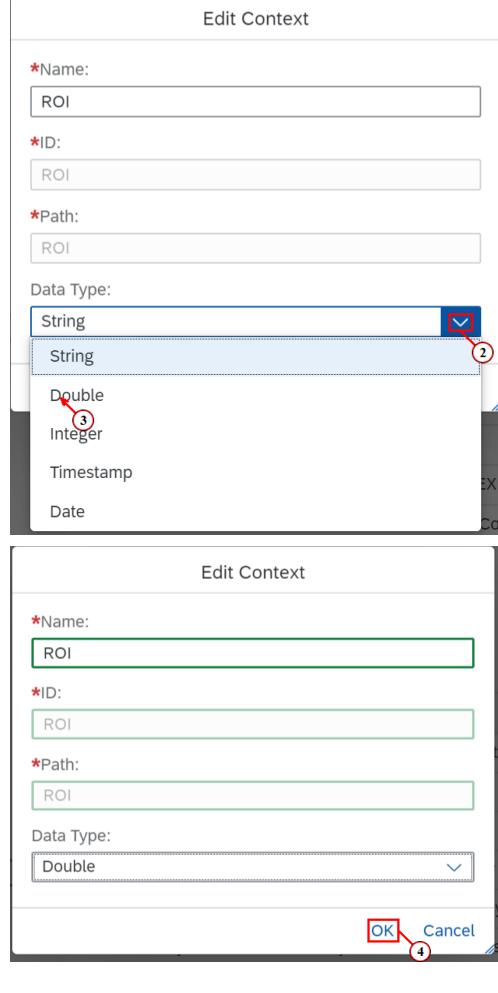
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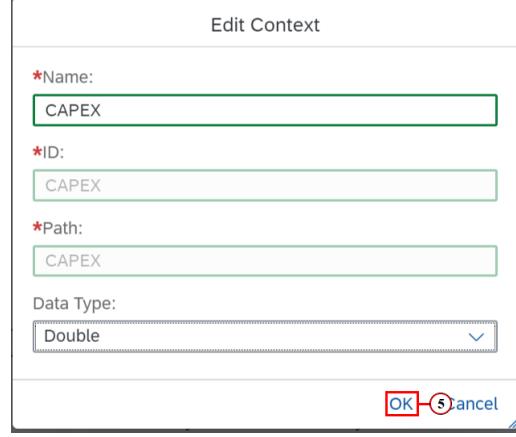
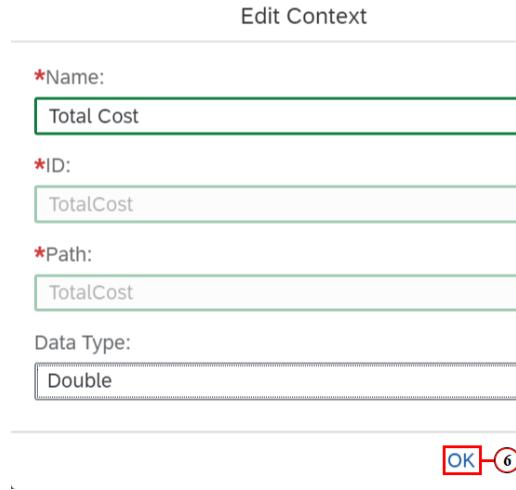
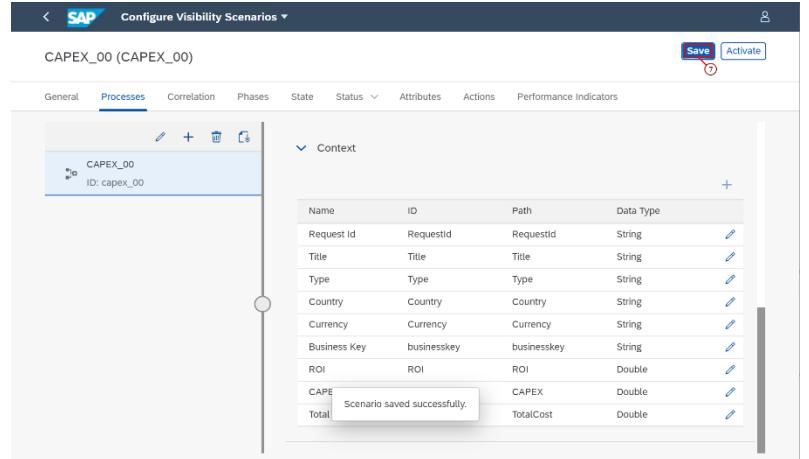
Name	CAPEX_00
ID	CAPEX_00
Description	Capital Expenditure Business Scenario

4. Click **Create**.

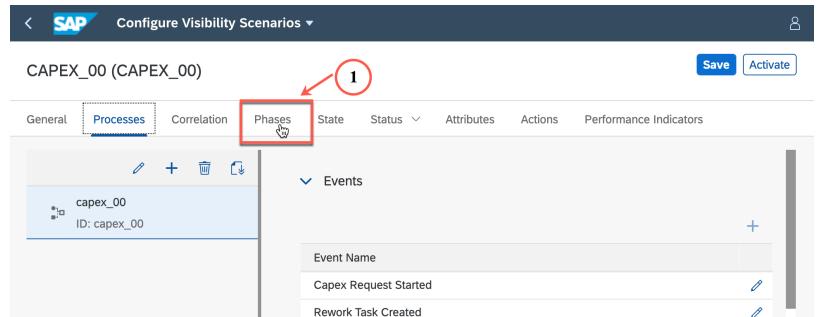
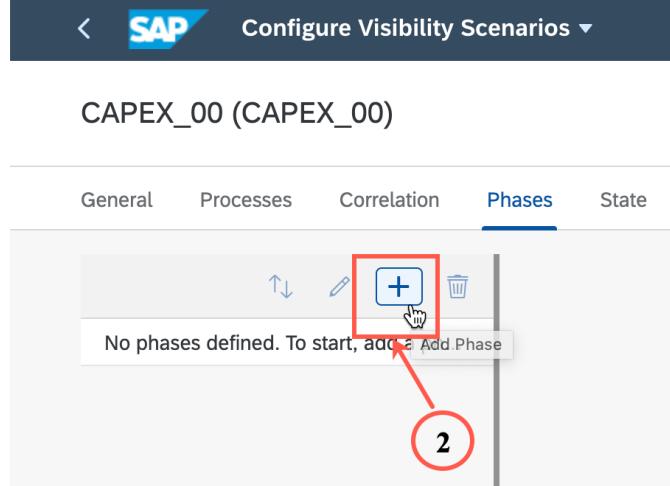
Explanation	Screenshot
<p>5. The new visibility scenario will be created.</p> <p>Note: The Status is in 'Draft' status.</p> <p>Note: You can search for the visibility scenario you created using the search box.</p> <p>6. Click  to open the newly created visibility scenario</p>	
<p>7. To add workflow as a participant, click .</p> <p>8. Click </p>	
<p>9. All SAP Cloud Platform Workflows deployed in your tenant will be shown. Type the name of the workflow you created and click  to search.</p>	
<p>10. Click .</p>	

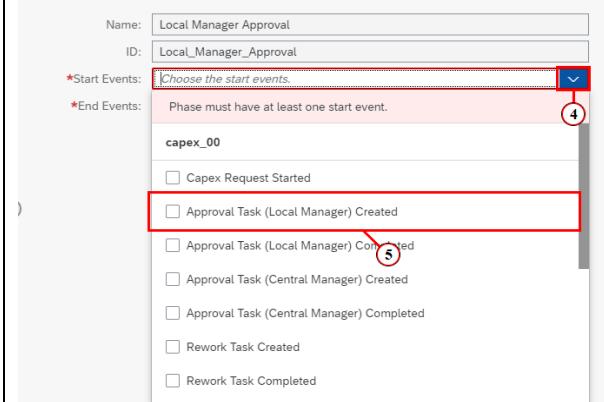
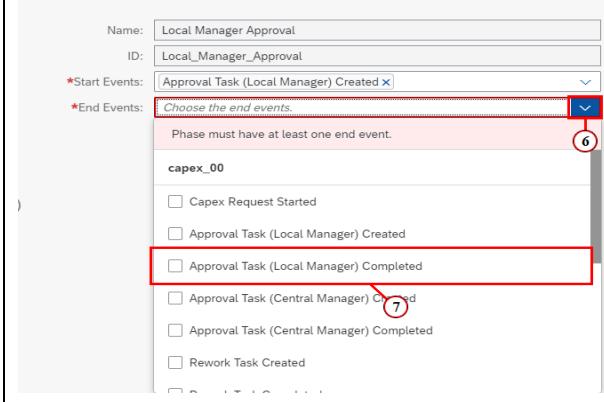
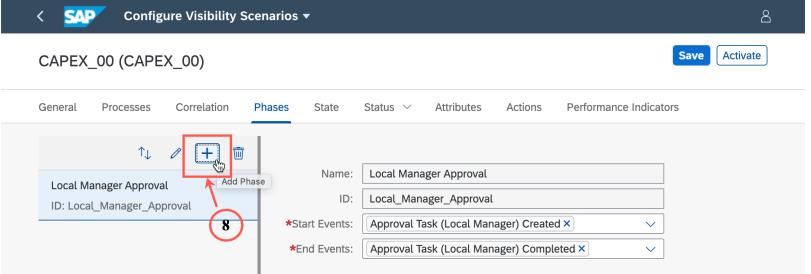
CHANGE CONTEXT VARIABLE DATA TYPES

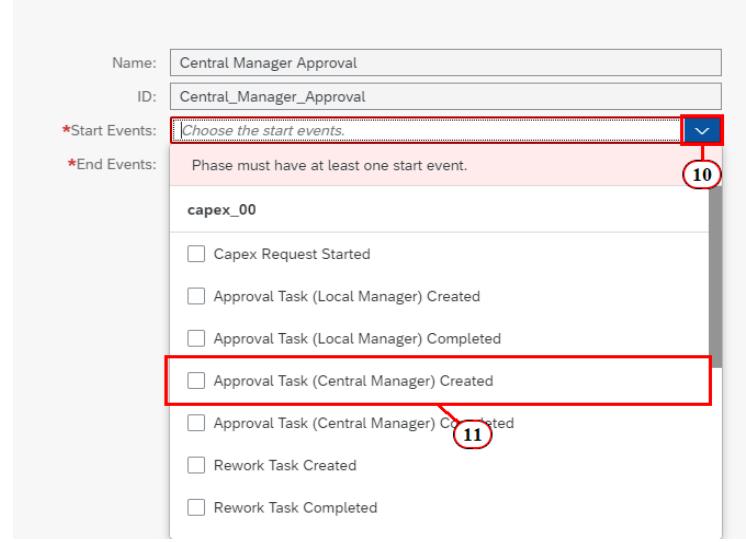
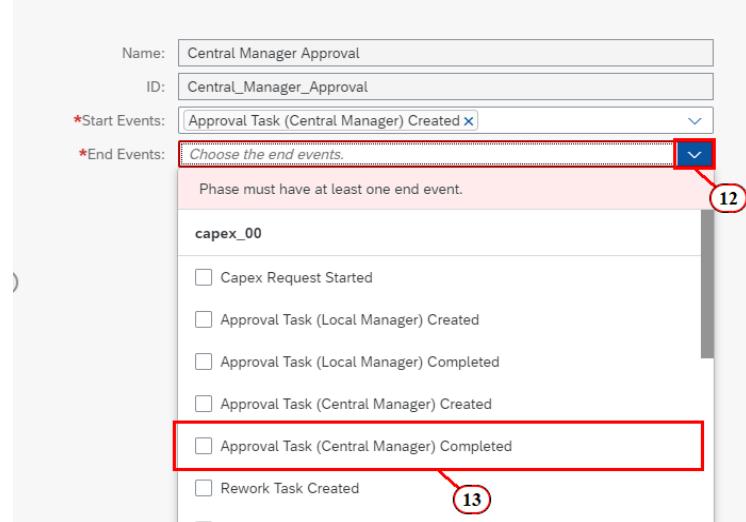
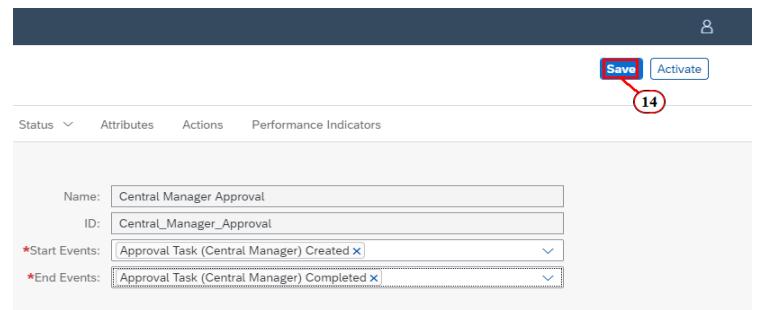
Explanation	Screenshot																																								
<p>By default, the context variables from the workflow will be of type 'String'. You will now change the data-type of few context attributes in order to use them in the performance indicators.</p> <p>11. Select the attribute 'ROI' and click .</p>	 <table border="1" data-bbox="722 460 1530 830"> <thead> <tr> <th>Name</th> <th>ID</th> <th>Path</th> <th>Data Type</th> </tr> </thead> <tbody> <tr> <td>Request Id</td> <td>Requestid</td> <td>Requestid</td> <td>String </td> </tr> <tr> <td>Title</td> <td>Title</td> <td>Title</td> <td>String </td> </tr> <tr> <td>Type</td> <td>Type</td> <td>Type</td> <td>String </td> </tr> <tr> <td>Country</td> <td>Country</td> <td>Country</td> <td>String </td> </tr> <tr> <td>Currency</td> <td>Currency</td> <td>Currency</td> <td>String </td> </tr> <tr> <td>Business Key</td> <td>businesskey</td> <td>businesskey</td> <td>String </td> </tr> <tr> <td>ROI</td> <td>ROI</td> <td>ROI</td> <td>String </td> </tr> <tr> <td>CAPEX</td> <td>CAPEX</td> <td>CAPEX</td> <td>String </td> </tr> <tr> <td>Total Cost</td> <td>TotalCost</td> <td>TotalCost</td> <td>String </td> </tr> </tbody> </table>	Name	ID	Path	Data Type	Request Id	Requestid	Requestid	String 	Title	Title	Title	String 	Type	Type	Type	String 	Country	Country	Country	String 	Currency	Currency	Currency	String 	Business Key	businesskey	businesskey	String 	ROI	ROI	ROI	String 	CAPEX	CAPEX	CAPEX	String 	Total Cost	TotalCost	TotalCost	String 
Name	ID	Path	Data Type																																						
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ROI	ROI	ROI	String 																																						
CAPEX	CAPEX	CAPEX	String 																																						
Total Cost	TotalCost	TotalCost	String 																																						
<p>12. Click  drop down for the Data Type.</p> <p>13. Select Double from the drop down.</p> <p>14. Click OK.</p>	 <div data-bbox="722 914 1220 1453"> <p>Edit Context</p> <p>*Name: ROI</p> <p>*ID: ROI</p> <p>*Path: ROI</p> <p>Data Type:</p> <ul style="list-style-type: none"> String  String  Double  Integer Timestamp Date </div> <div data-bbox="722 1453 1220 1907"> <p>Edit Context</p> <p>*Name: ROI</p> <p>*ID: ROI</p> <p>*Path: ROI</p> <p>Data Type: Double</p> <p>OK Cancel </p> </div>																																								

Explanation	Screenshot
<p>15. Similarly, select the context variable CAPEX and set the Data Type to Double.</p>	
<p>16. Finally select the context variable with name Total Cost and set the Data Type to Double.</p>	
<p>17. Click Save</p>	

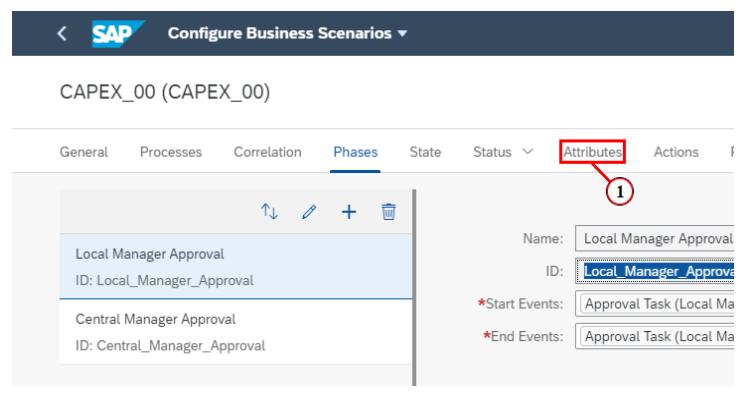
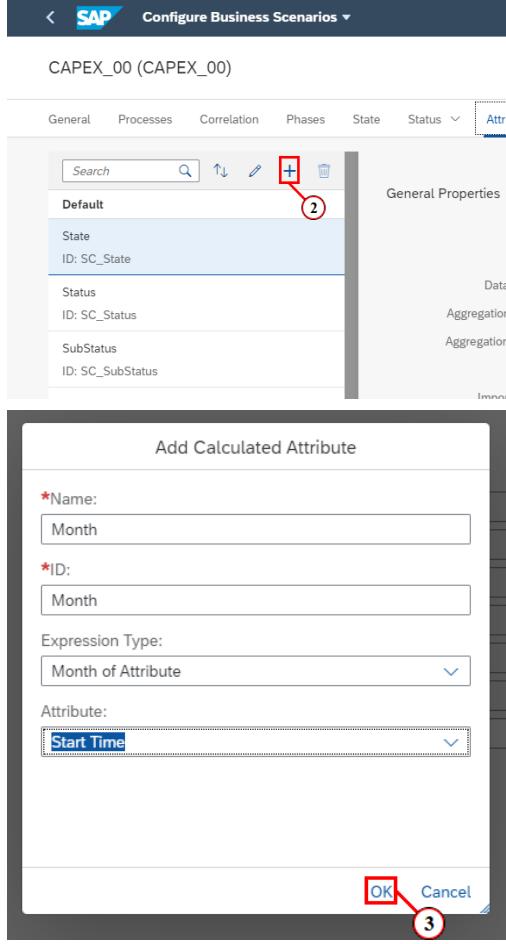
ENHANCE VISIBILITY SCENARIO WITH PHASES

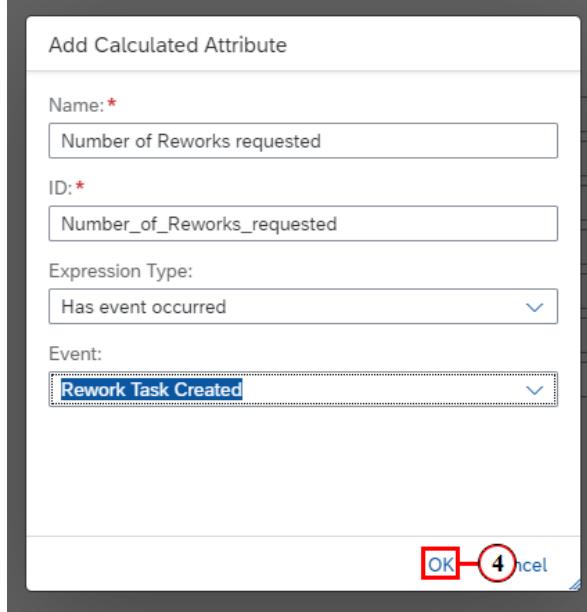
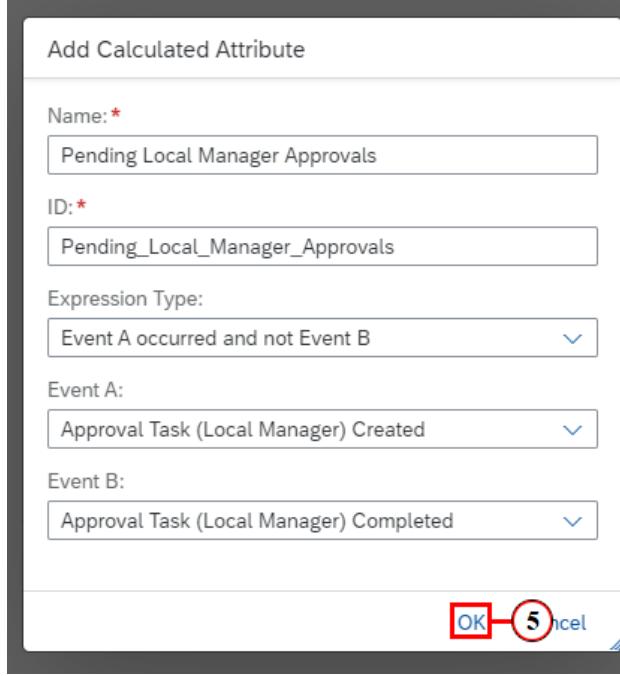
Explanation	Screenshot				
<p>You can define Phases for your Visibility Scenario. Phases usually are a business-friendly aggregated view of activities and steps in the process. An event(s) marks the start of the phase and a set of subsequent events can mark the end of it.</p> <p>18. Click the Phases tab.</p>	 <p>The screenshot shows the SAP Cloud Platform Workflow Management interface for configuring visibility scenarios. The top navigation bar has tabs for General, Processes, Correlation, and Phases. The Phases tab is highlighted with a red box and circled with a red number '1'. Below the tabs, there's a table with one row labeled 'capex_00' and 'ID: capex_00'. To the right of the table, under the heading 'Events', there are two entries: 'Event Name' (Capex Request Started) and another entry partially visible ('Rework Task Created'). At the bottom right of the interface are 'Save' and 'Activate' buttons.</p>				
<p>19. Click  to add a new phase and provide the following information:</p> <table border="1" data-bbox="166 1178 577 1305"> <tr> <td>Name</td> <td>Local Manager Approval</td> </tr> <tr> <td>ID</td> <td>Local_Manager_Approval</td> </tr> </table> <p>20. Click OK.</p>	Name	Local Manager Approval	ID	Local_Manager_Approval	 <p>The screenshot shows the 'Configure Visibility Scenarios' interface with the Phases tab selected. A modal dialog box titled 'Add Phase' is open. Inside the dialog, there are fields for 'Name' (Local Manager Approval) and 'ID' (Local_Manager_Approval). At the bottom right of the dialog, there is an 'OK' button. A red box and circle labeled '2' are placed over the 'OK' button. A callout arrow points from the text 'No phases defined. To start, add' to the 'OK' button.</p>  <p>The screenshot shows the 'Add Phase' dialog box. It contains fields for 'Name' (Local Manager Approval) and 'ID' (Local_Manager_Approval). At the bottom right, there is an 'OK' button. A red box and circle labeled '3' are placed over the 'OK' button.</p>
Name	Local Manager Approval				
ID	Local_Manager_Approval				

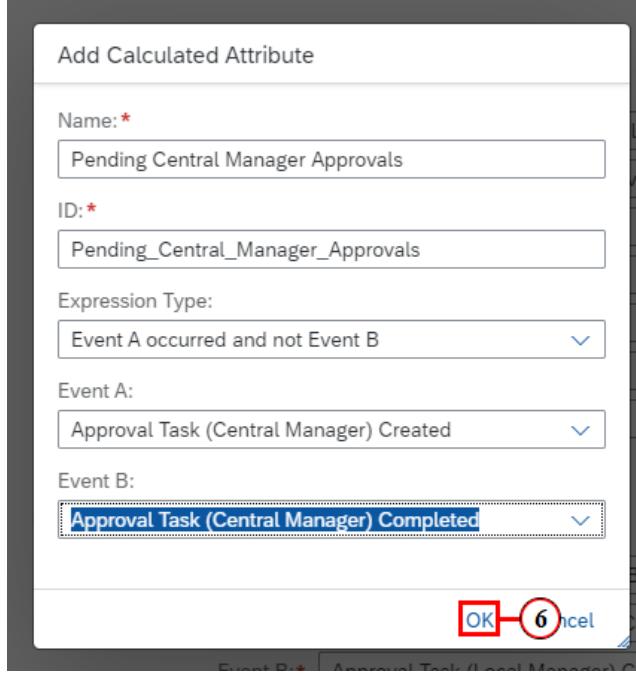
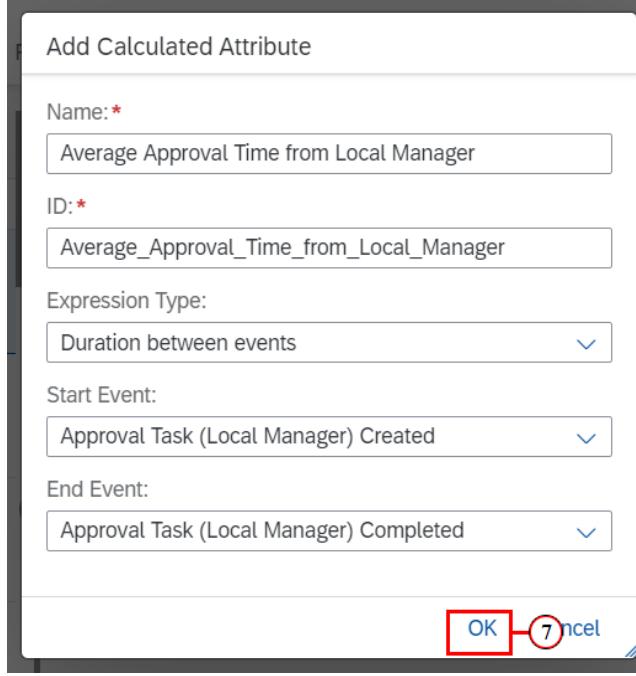
Explanation	Screenshot				
<p>21. Click the dropdown button  for Start Events.</p> <p>22. Click Approval Task (Local Manager) Created.</p>					
<p>23. Click the dropdown button  for End Events.</p> <p>24. Click Approval Task (Local Manager) Completed.</p>					
<p>25. Click  to create another phase</p>					
<p>Provide the following information</p> <table border="1" data-bbox="164 1622 577 1748"> <tr> <td>Name</td> <td>Central Manager Approval</td> </tr> <tr> <td>ID</td> <td>Central_Manager_Approval</td> </tr> </table> <p>26. Click .</p>	Name	Central Manager Approval	ID	Central_Manager_Approval	
Name	Central Manager Approval				
ID	Central_Manager_Approval				

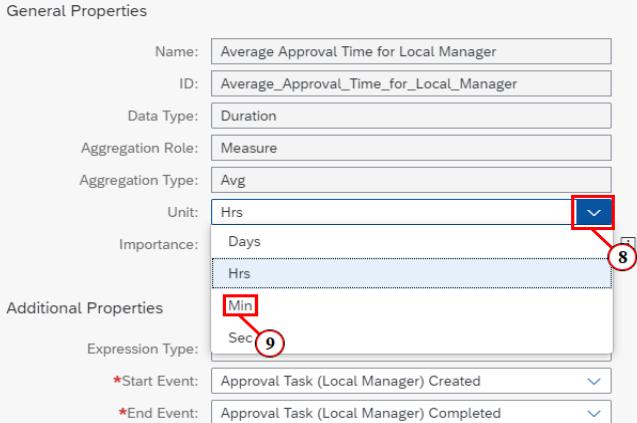
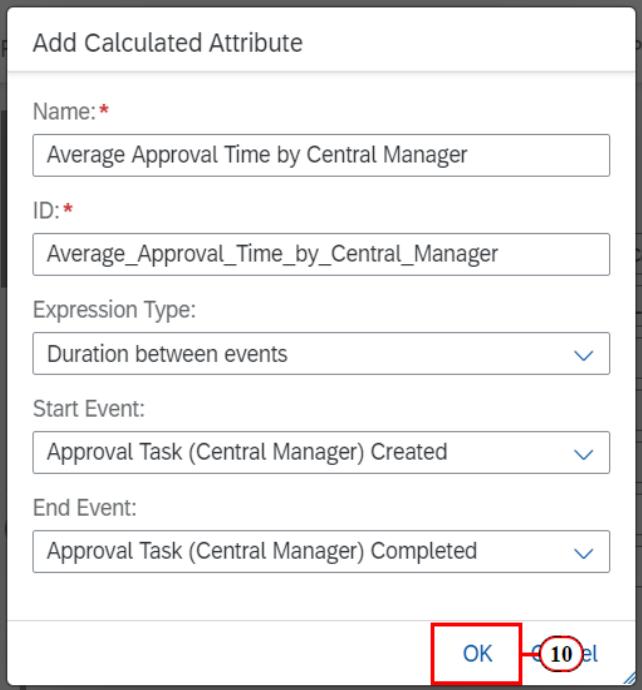
Explanation	Screenshot
<p>27. Click the dropdown button  for Start Events.</p> <p>28. Click Approval Task (Central Manager) Created.</p>	
<p>29. Click the dropdown button  for End Events.</p> <p>30. Click Approval Task (Central Manager) Completed.</p>	
<p>31. Click Save .</p>	

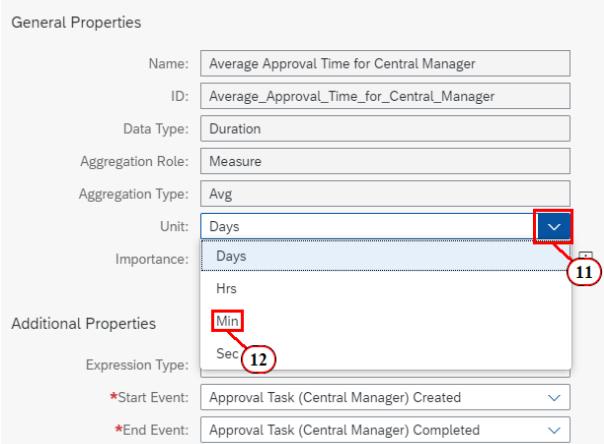
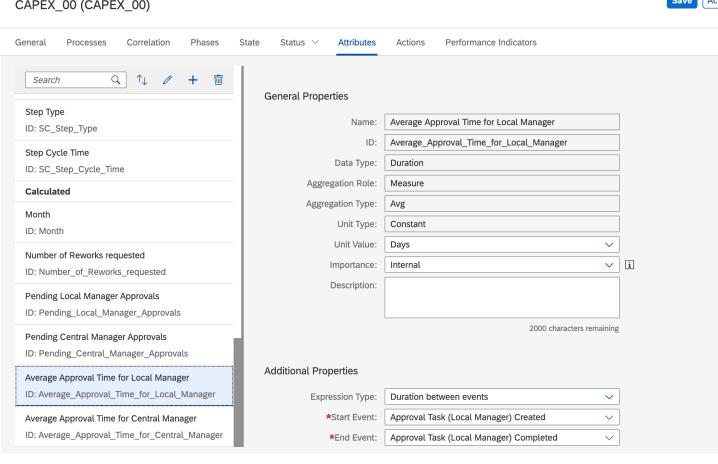
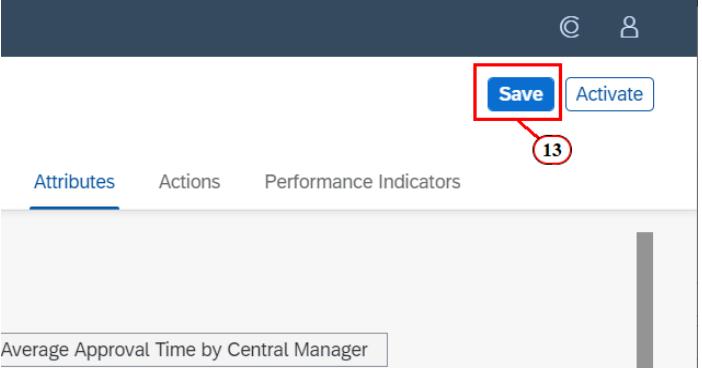
CREATE CALCULATED ATTRIBUTES

Explanation	Screenshot
<p>A visibility scenario has 4 types of attributes (a) Default, (b) Context, (c) Step and (d) Calculated.</p> <p>In this section you will create calculated attributes based on aggregation and expression types. These calculated attributes will act as a <i>Measure</i> while configuring <i>Process Performance Indicators</i>.</p> <p>32. Click Attributes </p>	 <p>The screenshot shows the SAP Cloud Platform Workflow Management interface. In the top navigation bar, the 'Attributes' tab is highlighted with a red box and circled with a red number '1'. Below the tabs, there is a list of attributes:</p> <ul style="list-style-type: none"> Local Manager Approval ID: Local_Manager_Approval Central Manager Approval ID: Central_Manager_Approval
<p>33. Click  to add new attributes</p> <p>Provide the following details:</p> <p>Name: Month</p> <p>ID: <this will automatically be created as Month></p> <p>Expression Type: Month of Attribute</p> <p>Attribute: Start Time</p> <p>34. Click </p>	 <p>The screenshot shows the SAP Cloud Platform Workflow Management interface with the 'Add Calculated Attribute' dialog box open. The dialog box contains the following fields:</p> <ul style="list-style-type: none"> *Name: Month *ID: Month Expression Type: Month of Attribute Attribute: Start Time <p>At the bottom right of the dialog box, the 'OK' button is highlighted with a red box and circled with a red number '3'.</p>

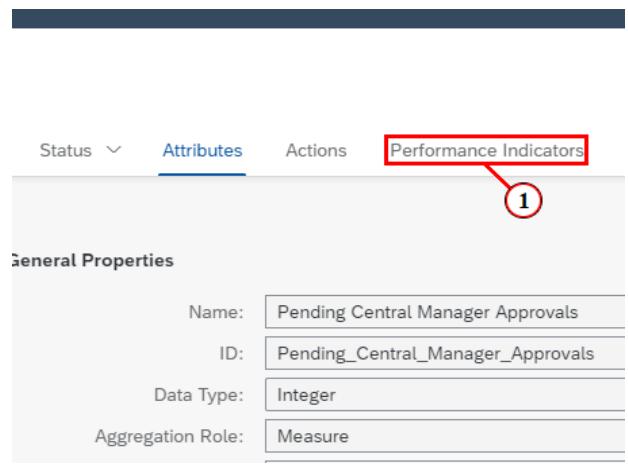
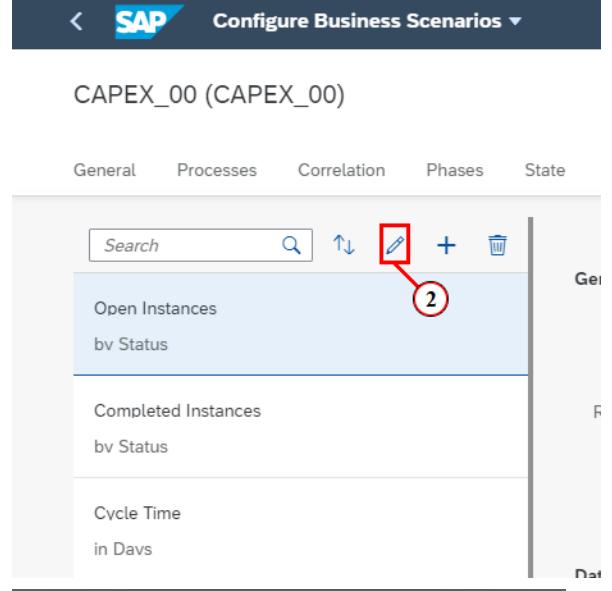
Explanation	Screenshot
<p>35. Repeat the steps and create 2nd attribute with following details:</p> <p>Name: Number of Reworks requested</p> <p>ID: <this will automatically be created as Number_of_Reworks_requested></p> <p>Expression Type: Has event occurred</p> <p>Event: Rework Task Created</p> <p>36. Click OK.</p>	
<p>37. Add 3rd attribute with the following details:</p> <p>Name: Pending Local Manager Approvals</p> <p>ID: <this will automatically be created as Pending_Local_Manager_Approvals></p> <p>Expression Type: Event A occurred and not Event B</p> <p>Event A: Approval Task (Local Manager) Created</p> <p>Event B: Approval Task (Local Manager) Completed</p> <p>38. Click OK.</p>	

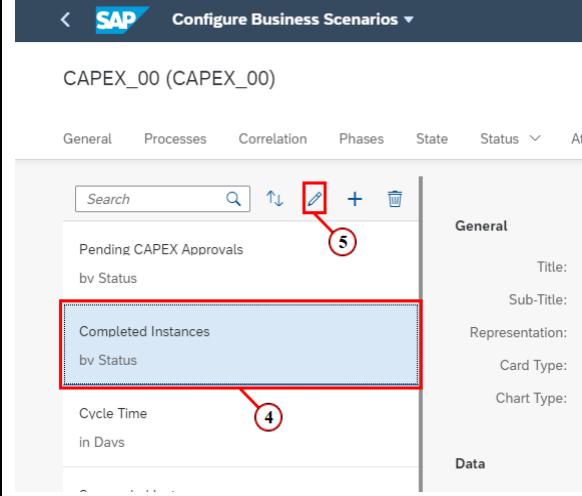
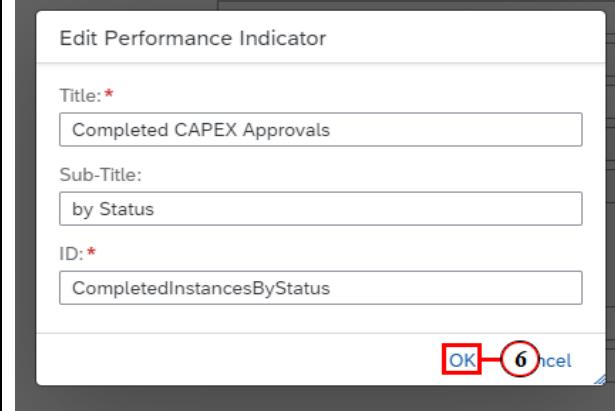
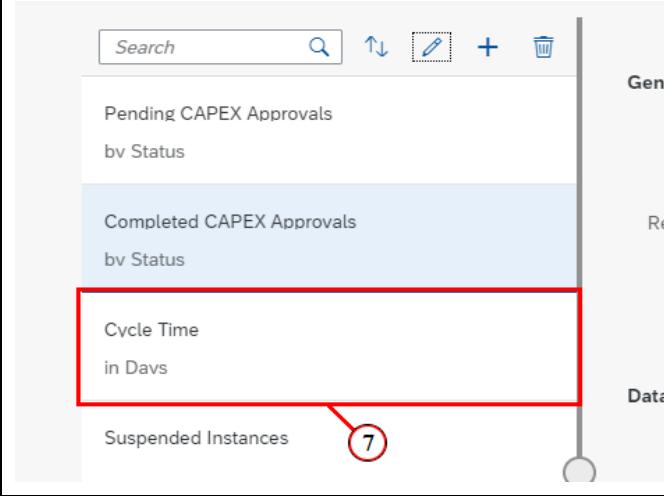
Explanation	Screenshot
<p>39. Add 4th attribute with following details:</p> <p>Name: Pending Central Manager Approvals</p> <p>ID: <this will automatically be created as Pending_Central_Manager_Approvals></p> <p>Expression Type: Event A occurred and not Event B</p> <p>Event A: Approval Task (Central Manager) Created</p> <p>Event B: Approval Task (Central Manager) Completed</p> <p>40. Click OK.</p>	
<p>41. Add 5th attribute with following details:</p> <p>Name: Average Approval Time from Local Manager</p> <p>ID: <this will automatically be created as Average_Approval_Time_from_Local_Manager></p> <p>Expression Type: Duration between events</p> <p>Event A: Approval Task (Local Manager) Created</p> <p>Event B: Approval Task (Local Manager) Completed</p> <p>42. Click OK.</p>	

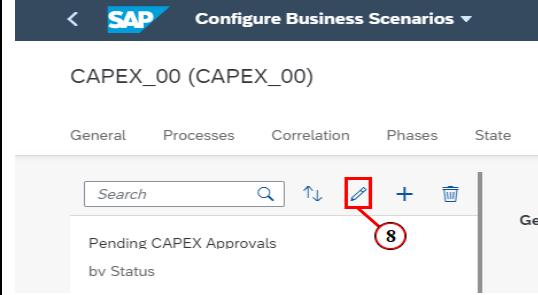
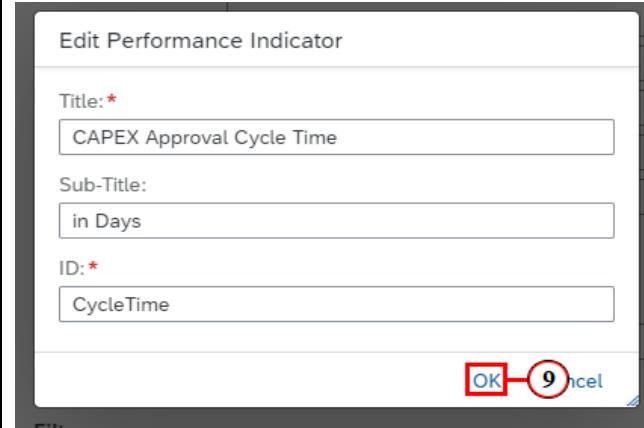
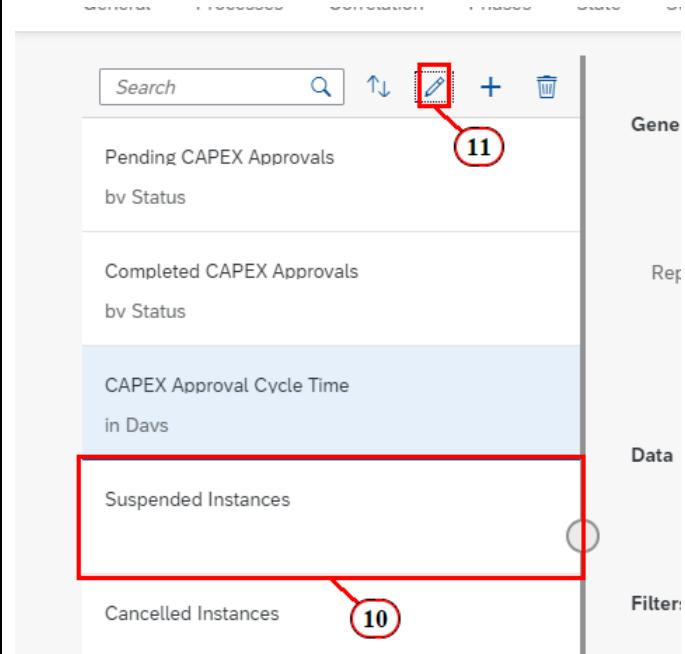
Explanation	Screenshot
<p>By default, the Unit is set to Days. Now, change it to hours or minutes to have a quicker calculation in this exercise.</p> <p>43. Click  to open the Unit dropdown.</p> <p>44. Click Min.</p>	 <p>General Properties</p> <p>Name: Average Approval Time for Local Manager ID: Average_Approval_Time_for_Local_Manager Data Type: Duration Aggregation Role: Measure Aggregation Type: Avg Unit: Hrs </p> <p>Importance: Days Hrs Min  Sec </p> <p>Additional Properties</p> <p>Expression Type: *Start Event: Approval Task (Local Manager) Created *End Event: Approval Task (Local Manager) Completed</p>
<p>45. Add 6th attribute with following details:</p> <p>Name: Average Approval Time from Central Manager</p> <p>ID: <this will automatically be created as Average_Approval_Time_from_Central_Manager></p> <p>Expression Type: Duration between events</p> <p>Event A: Approval Task (Central Manager) Created</p> <p>Event B: Approval Task (Central Manager) Completed</p> <p>46. Click .</p>	 <p>Add Calculated Attribute</p> <p>Name: * Average Approval Time by Central Manager</p> <p>ID: * Average_Approval_Time_by_Central_Manager</p> <p>Expression Type: Duration between events</p> <p>Start Event: Approval Task (Central Manager) Created</p> <p>End Event: Approval Task (Central Manager) Completed</p> <p>OK </p>

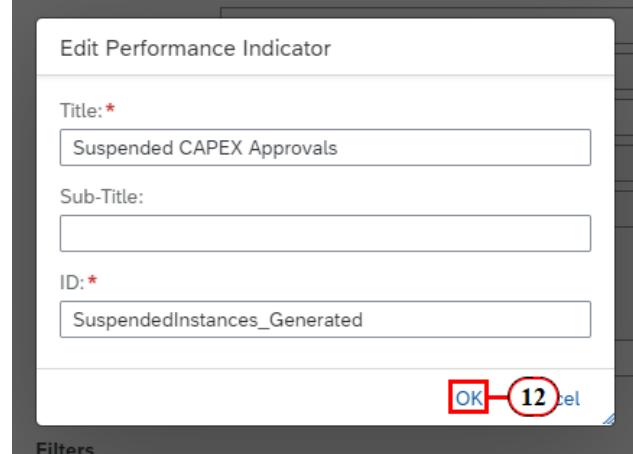
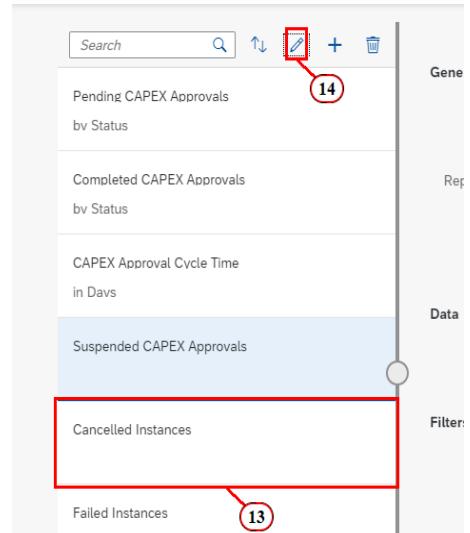
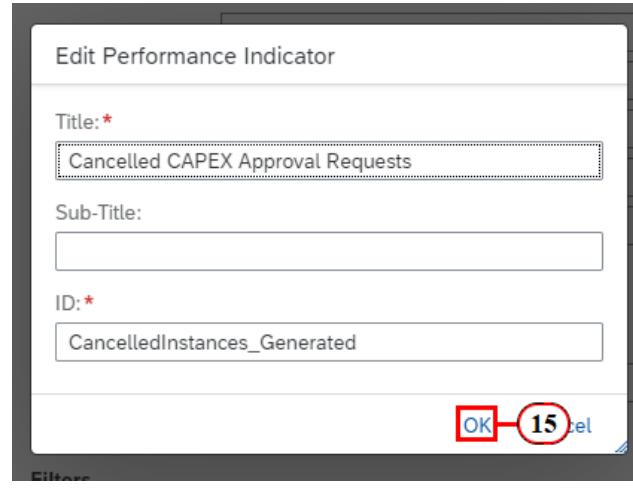
Explanation	Screenshot
<p>47. By default, the Unit is set to Days. Change it to hours or minutes to have a quicker calculation in this exercise.</p> <p>48. Click  to open the Unit dropdown.</p> <p>49. Click Min.</p>	 <p>General Properties</p> <p>Name: Average Approval Time for Central Manager ID: Average_Approval_Time_for_Central_Manager Data Type: Duration Aggregation Role: Measure Aggregation Type: Avg Unit: Days Importance: Days Additional Properties Expression Type: Start Event: Approval Task (Central Manager) Created End Event: Approval Task (Central Manager) Completed</p> <p>Navigation Link Configure Navigation Link:  NO</p>
<p>You have now created all the attributes that will be used to create process performance indicators for the capital expenditure approval process.</p>	 <p>CAPEX_00 (CAPEX_00)</p> <p>General Properties</p> <p>Name: Average Approval Time for Local Manager ID: Average_Approval_Time_for_Local_Manager Data Type: Duration Aggregation Role: Measure Aggregation Type: Avg Unit Type: Constant Unit Value: Days Importance: Internal Description: 2000 characters remaining</p> <p>Additional Properties Expression Type: Duration between events Start Event: Approval Task (Local Manager) Created End Event: Approval Task (Local Manager) Completed</p>
<p>50. Click .</p>	 <p>Attributes Actions Performance Indicators</p> <p>Average Approval Time by Central Manager</p>

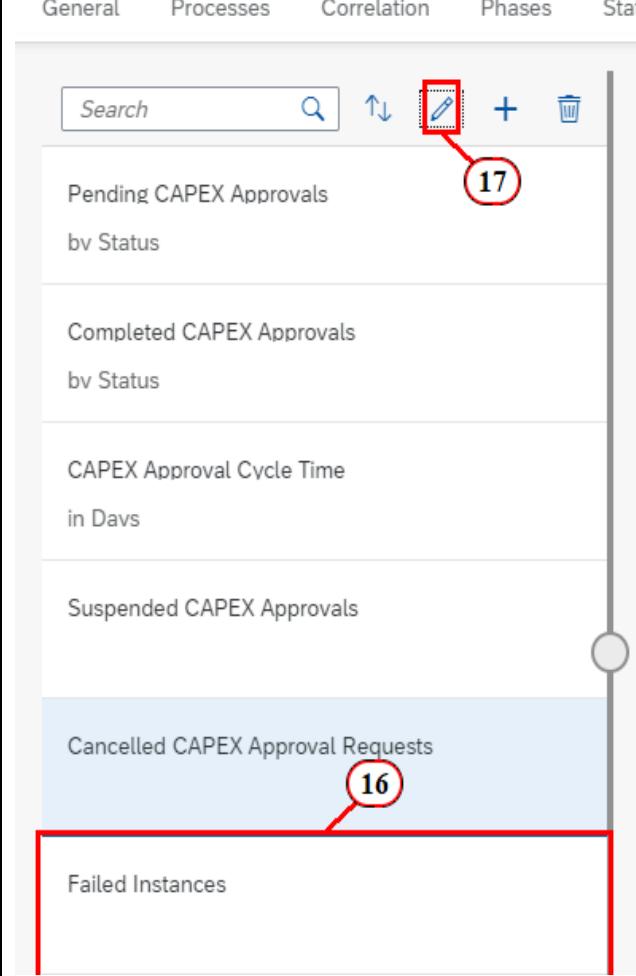
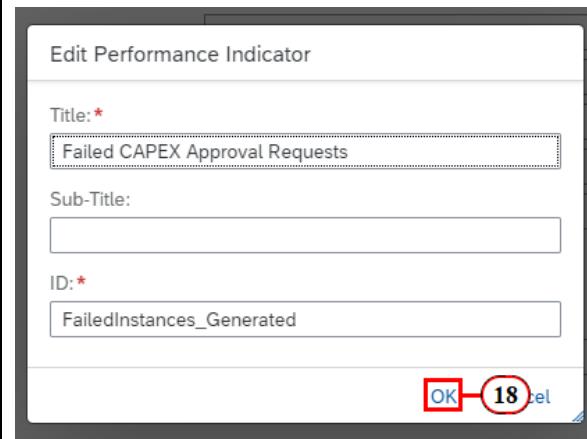
CREATE PROCESS PERFORMANCE INDICATORS

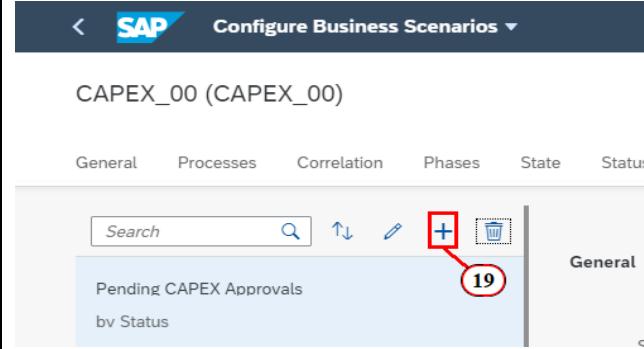
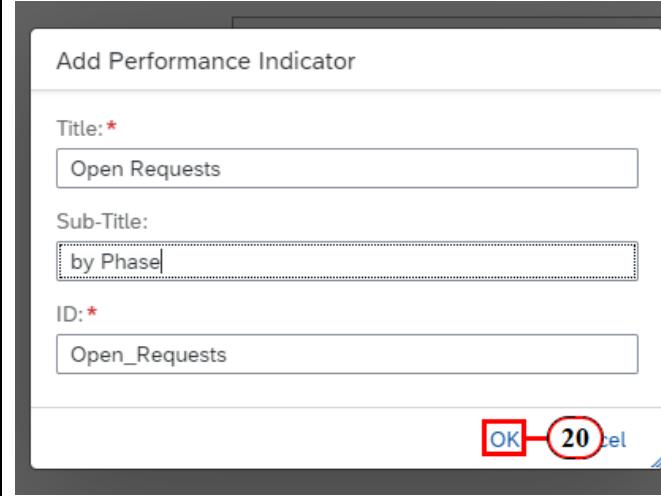
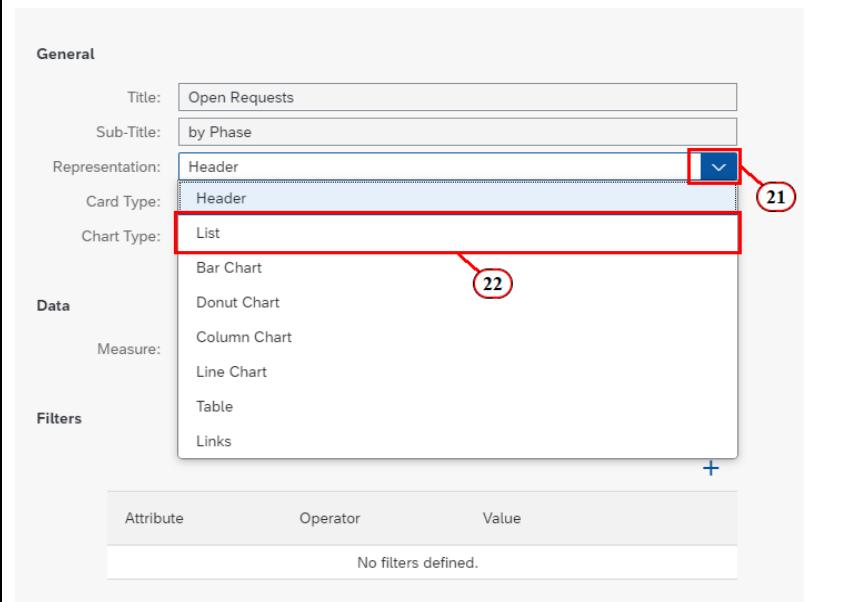
Explanation	Screenshot
<p>Performance Indicator represent aggregated information of a measure, grouped by dimensions and applied filters. A group of performance indicators gives the business users a holistic view of the process and enables them to understand process performance at a glance.</p> <p>Commonly used process performance indicators are created by-default when you create the visibility scenario.</p> <p>51. Click Performance Indicators tab</p>	 <p>The screenshot shows the SAP Cloud Platform Workflow Management interface. At the top, there is a navigation bar with tabs: Status, Attributes (which is currently selected), Actions, and Performance Indicators. A red box highlights the 'Performance Indicators' tab, and a red circle with the number '1' points to it. Below the tabs, there is a section titled 'General Properties' with fields for Name, ID, Data Type, and Aggregation Role. The Name field contains 'Pending Central Manager Approvals' and the ID field contains 'Pending_Central_Manager_Approvals'. The Data Type is set to Integer and the Aggregation Role is set to Measure.</p>
<p>You will now rename the default process performance indicators.</p> <p>52. Select Open Instances and click  to rename.</p> <p>53. In the pop-up, change the Title as Pending CAPEX Approvals.</p>	 <p>The screenshot shows the SAP Cloud Platform Workflow Management interface. At the top, there is a header with the SAP logo and the text 'Configure Business Scenarios'. Below the header, there is a list of instances: 'Open Instances' (bv Status) and 'Completed Instances' (bv Status). Under 'Open Instances', there is a sub-section 'Cycle Time' with the value 'in Days'. A red box highlights the edit icon (pencil) next to 'Open Instances', and a red circle with the number '2' points to it. Below this, a modal dialog is open titled 'Edit Performance Indicator'. It has fields for 'Title:' (Pending CAPEX Approvals), 'Sub-Title:' (bv Status), and 'ID:' (OpenInstancesByStatus). At the bottom of the dialog, there are 'OK' and 'Cancel' buttons, with a red box highlighting the 'OK' button and a red circle with the number '3' points to it.</p>
<p>54. Click .</p>	

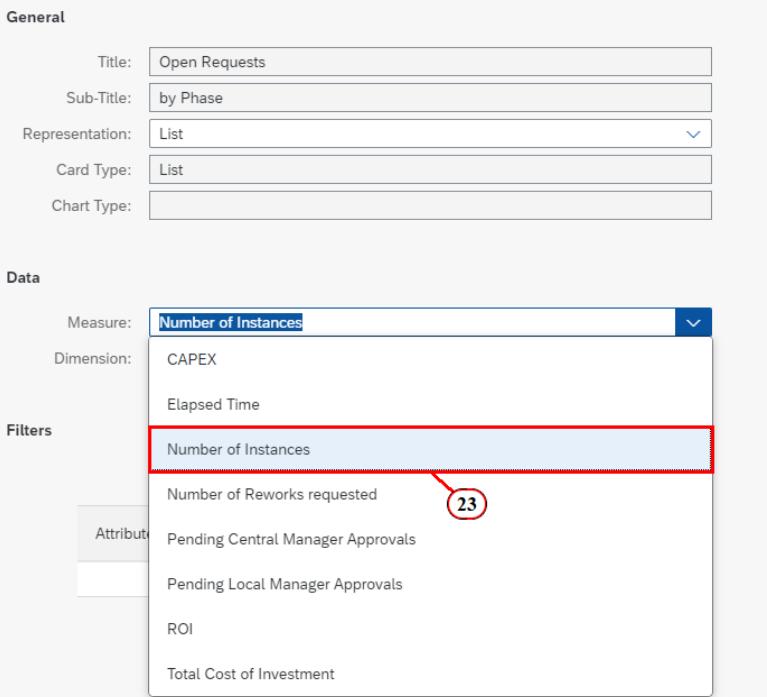
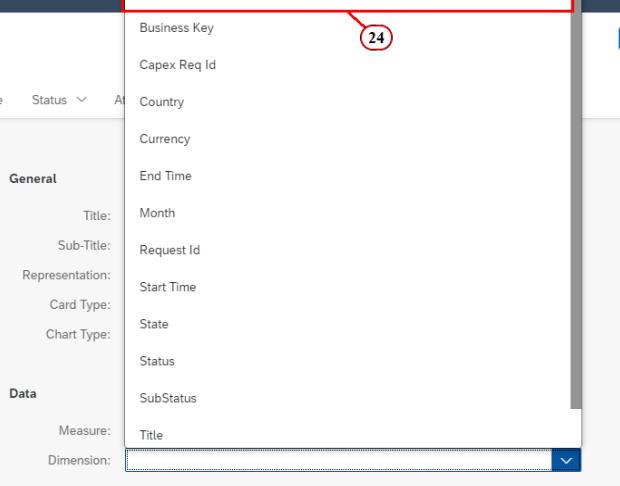
Explanation	Screenshot
<p>55. Now, select the 2nd indicator named Completed Instances.</p> <p>56. Click .</p>	 <p>The screenshot shows the SAP Cloud Platform Workflow Management interface under 'Configure Business Scenarios'. A list of indicators is displayed, with the second item, 'Completed Instances by Status', highlighted with a red box and a red number '5' pointing to the edit icon. Below it, another indicator 'Cycle Time in Days' is also highlighted with a red box and a red number '4' pointing to its edit icon.</p>
<p>57. In the pop-up, change the Title as Completed CAPEX Approvals.</p> <p>58. Click .</p>	 <p>The screenshot shows the 'Edit Performance Indicator' dialog box. The 'Title:' field contains 'Completed CAPEX Approvals', and the 'ID:' field contains 'CompletedInstancesByStatus'. The 'OK' button is highlighted with a red box and a red number '6' pointing to it.</p>
<p>59. Now, select the 3rd indicator named Cycle Time in Days.</p>	 <p>The screenshot shows the SAP Cloud Platform Workflow Management interface under 'Configure Business Scenarios'. The third indicator, 'Cycle Time in Days', is highlighted with a red box and a red number '7' pointing to its edit icon. Other indicators like 'Pending CAPEX Approvals' and 'Completed CAPEX Approvals' are visible in the background.</p>

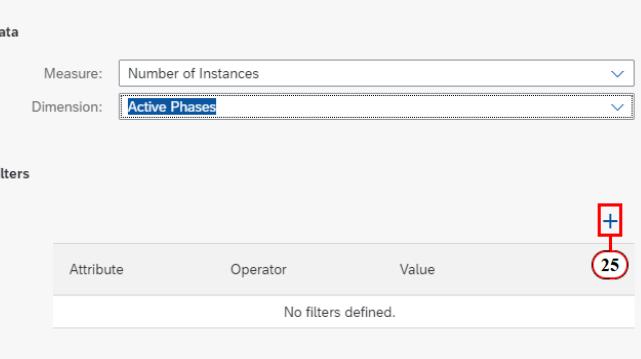
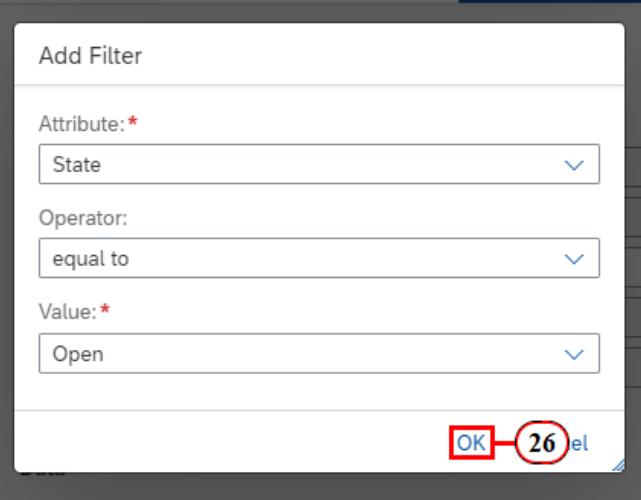
Explanation	Screenshot
<p>60. Click .</p>	
<p>61. In the pop-up, change the Title as CAPEX Approval Cycle Time. 62. Click .</p>	
<p>63. Now, select the 4th indicator named Suspended Instances. 64. Click .</p>	

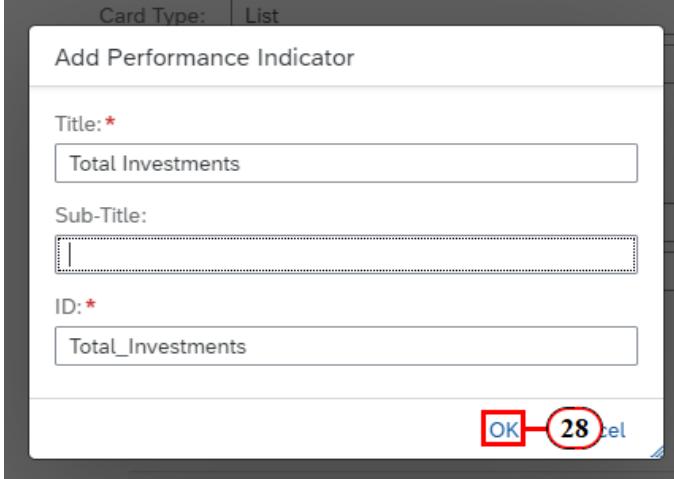
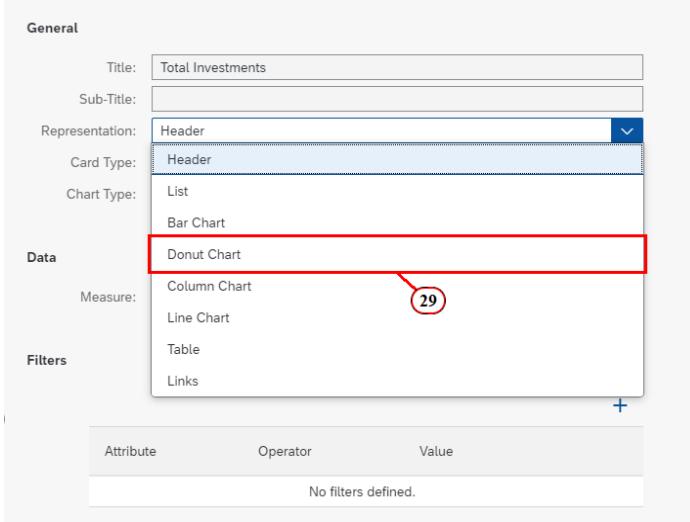
Explanation	Screenshot
<p>65. In the pop-up, change the Title as Suspended CAPEX Approvals.</p> <p>66. Click OK.</p>	
<p>67. Now, select the 5th default indicator named Cancelled Instances.</p> <p>68. Click .</p>	
<p>69. In the pop-up, change the Title as Cancelled CAPEX Approval Requests.</p> <p>70. Click OK.</p>	

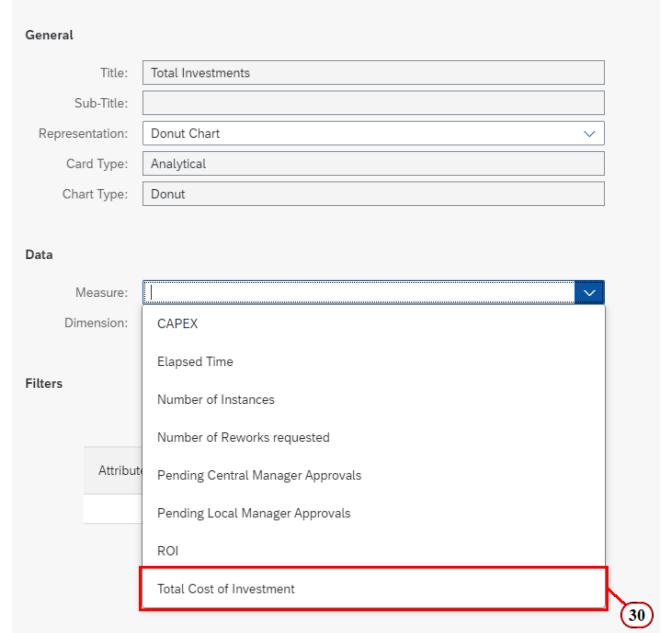
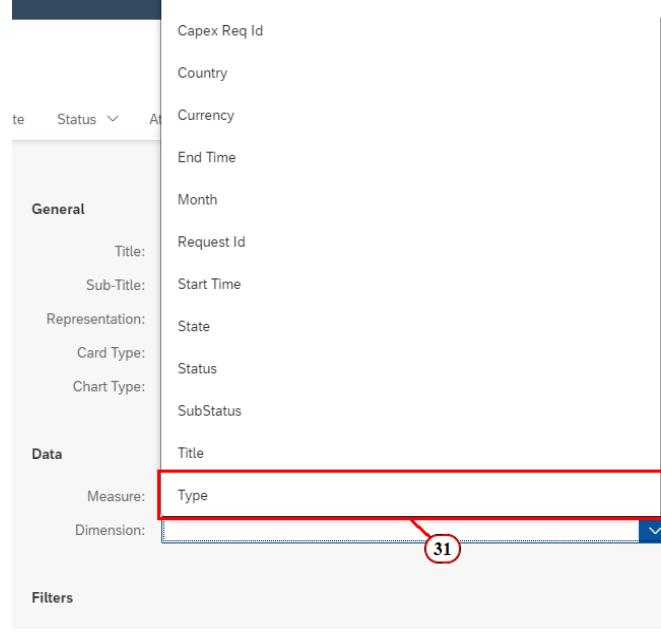
Explanation	Screenshot
<p>71. Now, select the 6th and final default indicator named Failed Instances.</p> <p>72. Click .</p>	
<p>73. In the pop-up, change the Title as Failed CAPEX Approval Requests.</p> <p>74. Click .</p>	

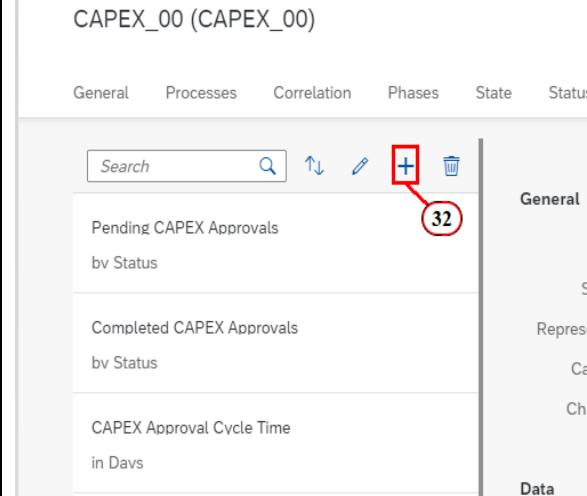
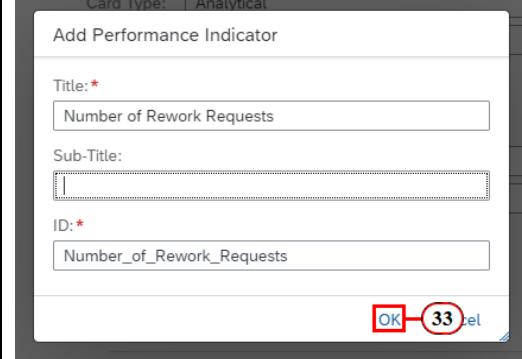
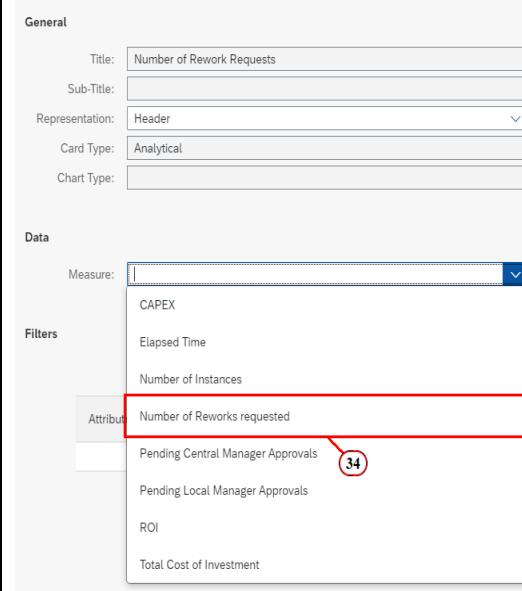
Explanation	Screenshot						
<p>Let's now create some custom <i>Performance Indicators</i>. Each process performance indicator are shown as a tile in <i>Process Workspace</i>.</p> <p>75. Click  to add a process performance indicator which will show the details of Open Capex Requests, distributed by phase and filtered by the State of the process.</p>							
<p>Provide the following details:</p> <table border="1" data-bbox="164 920 577 1030"> <tr> <td>Title</td> <td>Open Requests</td> </tr> <tr> <td>Sub-Title</td> <td>by Phase</td> </tr> <tr> <td>ID</td> <td>Open_Requests</td> </tr> </table> <p>76. Click .</p>	Title	Open Requests	Sub-Title	by Phase	ID	Open_Requests	
Title	Open Requests						
Sub-Title	by Phase						
ID	Open_Requests						
<p>77. Click the dropdown button from the Representation.</p> <p>78. Click the List type.</p>							

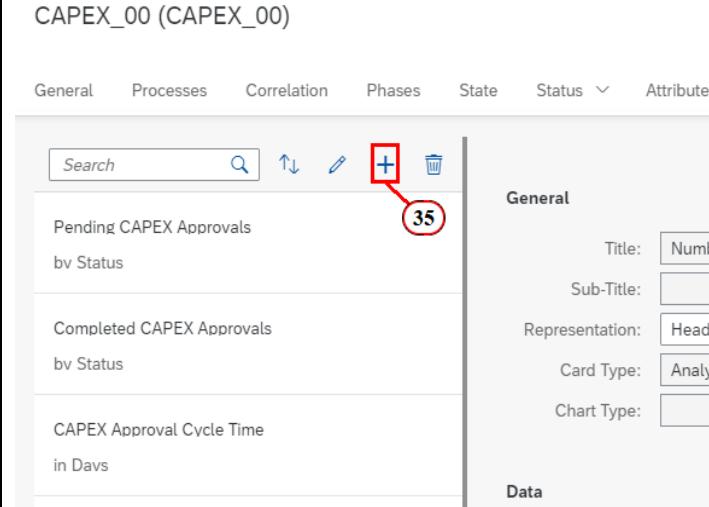
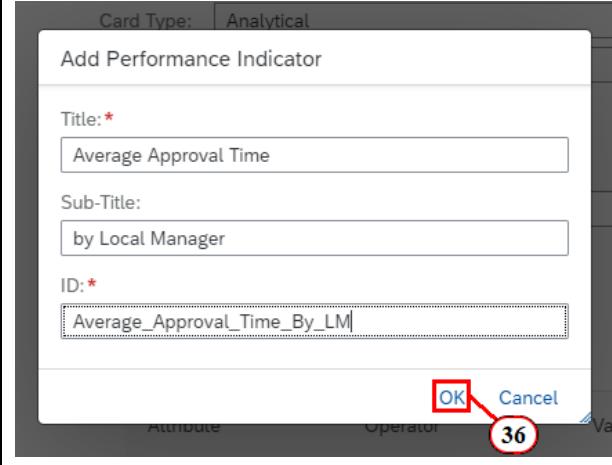
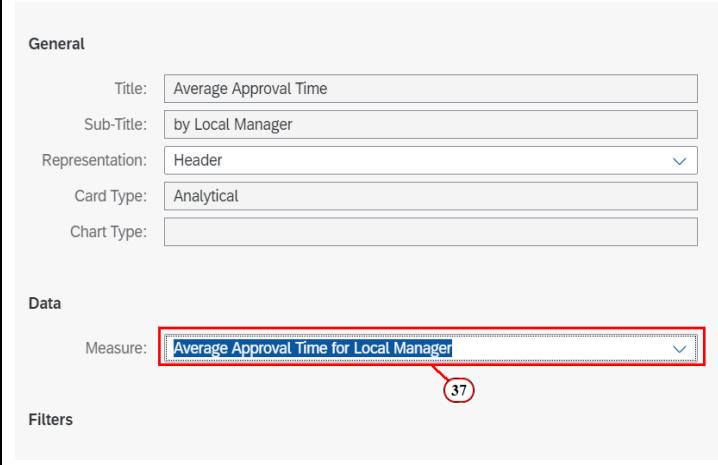
Explanation	Screenshot
<p>79. From the Measures dropdown, select Number of Instances.</p>	 <p>The screenshot shows the 'Data' configuration section. The 'Measure' field is set to 'Number of Instances'. A dropdown menu is open, showing several options: CAPEX, Elapsed Time, Number of Instances (which is highlighted with a red box and circled with a red circle labeled '23'), Number of Reworks requested, Pending Central Manager Approvals, Pending Local Manager Approvals, ROI, and Total Cost of Investment.</p>
<p>80. From the Dimensions dropdown, select Active Phases.</p>	 <p>The screenshot shows the 'Dimensions' configuration section. The 'Dimension' field is set to 'Active Phases'. A dropdown menu is open, showing several options: Active Phases (highlighted with a red box and circled with a red circle labeled '24'), Business Key, Capex Req Id, Country, Currency, End Time, Month, Request Id, Start Time, State, Status, SubStatus, Title, and a blank 'Dimension' field.</p>

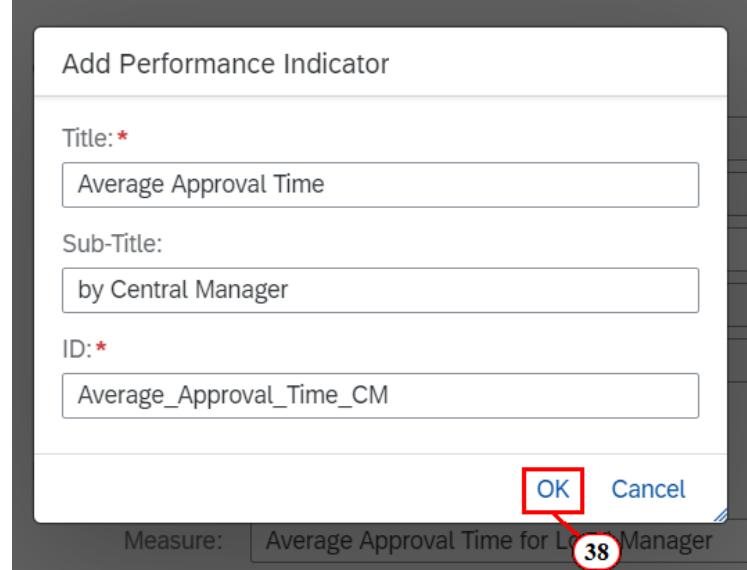
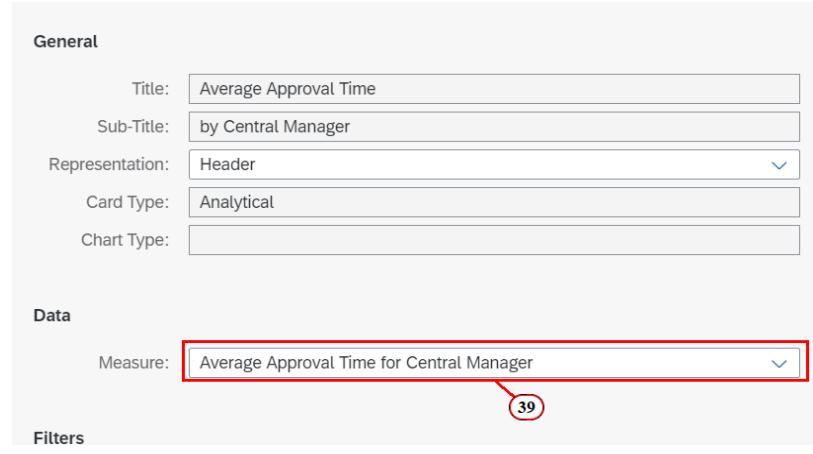
Explanation	Screenshot								
<p>81. Click  to add a filter</p>	 <p>Data</p> <p>Measure: Number of Instances</p> <p>Dimension: Active Phases</p> <p>Filters</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Attribute</th> <th style="text-align: left;">Operator</th> <th style="text-align: left;">Value</th> <th style="text-align: right;">Delete</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td style="text-align: right;"> 25</td> </tr> </tbody> </table> <p>No filters defined.</p>	Attribute	Operator	Value	Delete				 25
Attribute	Operator	Value	Delete						
			 25						
<p>Provide the following details:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Attribute</td> <td style="width: 50%;">State</td> </tr> <tr> <td>Operator</td> <td>equal to</td> </tr> <tr> <td>Value</td> <td>Open</td> </tr> </table> <p>82. Click .</p>	Attribute	State	Operator	equal to	Value	Open	 <p>Add Filter</p> <p>Attribute:*</p> <p>State</p> <p>Operator:</p> <p>equal to</p> <p>Value:*</p> <p>Open</p> <p>OK 26</p>		
Attribute	State								
Operator	equal to								
Value	Open								
<p>Similarly, create 2nd custom process performance indicator to show <i>Total Investments</i> distributed across <i>Type of Investments</i> in a Donut Chart.</p> <p>83. Click  to add a new Performance Indicator.</p>	<p>CAPEX_00 (CAPEX_00)</p> <p>General Processes Correlation Phases State Status</p> <p>Search    </p> <p> 27</p> <p>Pending CAPEX Approvals bv Status</p> <p>Completed CAPEX Approvals</p>								

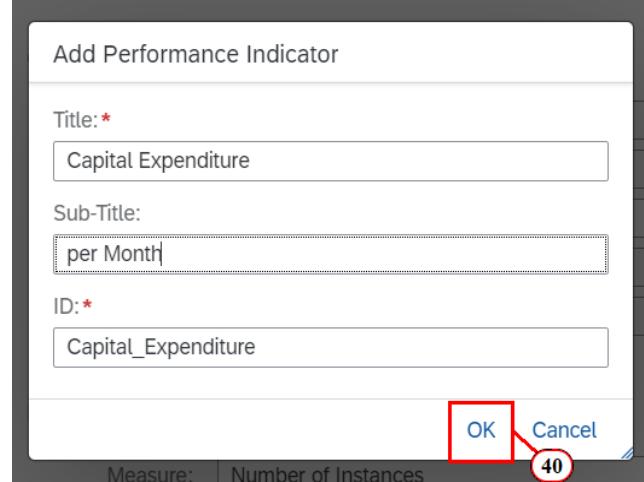
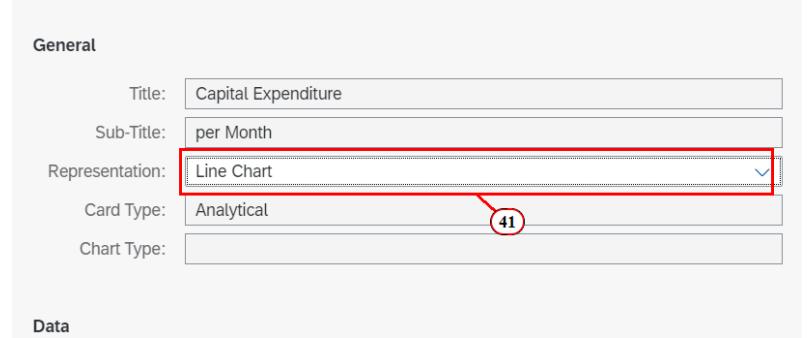
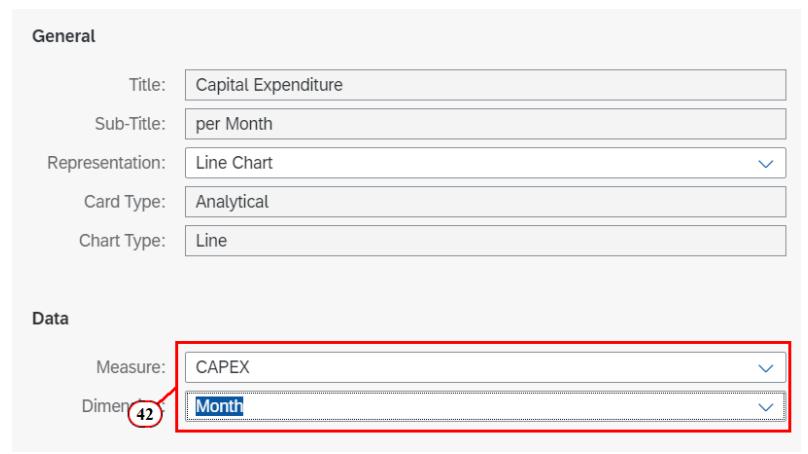
Explanation	Screenshot						
<p>Provide the following details:</p> <table border="1" data-bbox="164 508 577 614"> <tr> <td>Title</td> <td>Total Investments</td> </tr> <tr> <td>Sub-Title</td> <td></td> </tr> <tr> <td>ID</td> <td>Total_Investments</td> </tr> </table> <p>84. Click OK.</p>	Title	Total Investments	Sub-Title		ID	Total_Investments	
Title	Total Investments						
Sub-Title							
ID	Total_Investments						
<p>85. Select Donut Chart from the Representation dropdown.</p>							

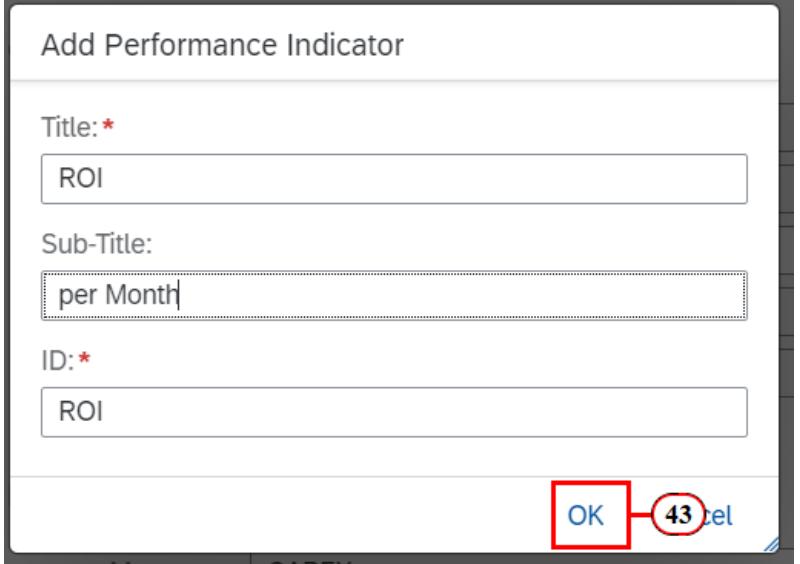
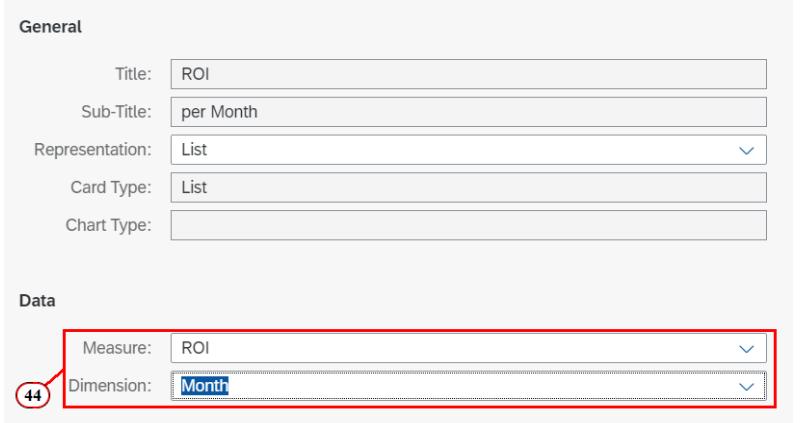
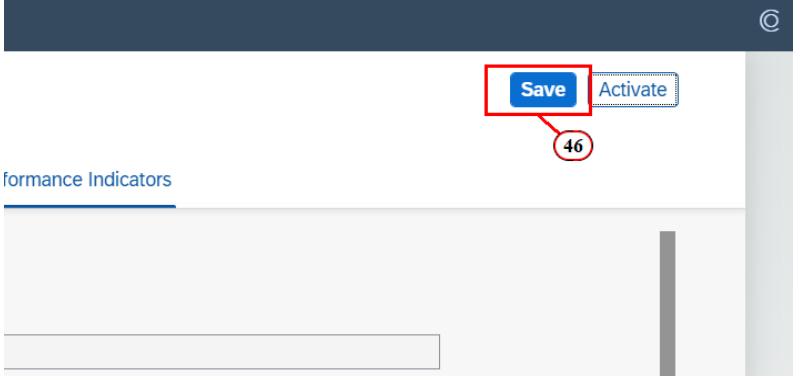
Explanation	Screenshot
<p>86. Select Total Cost of Investment from the Measure dropdown.</p>	 <p>General</p> <p>Title: Total Investments</p> <p>Sub-Title:</p> <p>Representation: Donut Chart</p> <p>Card Type: Analytical</p> <p>Chart Type: Donut</p> <p>Data</p> <p>Measure: CAPEX</p> <p>Dimension: Elapsed Time</p> <p>Filters</p> <p>Attributes</p> <p>Number of Instances</p> <p>Number of Reworks requested</p> <p>Pending Central Manager Approvals</p> <p>Pending Local Manager Approvals</p> <p>ROI</p> <p>Total Cost of Investment 30</p>
<p>87. Select Type from the Dimension dropdown.</p>	 <p>Business Key</p> <p>Capex Req Id</p> <p>Country</p> <p>Currency</p> <p>End Time</p> <p>Month</p> <p>Request Id</p> <p>Start Time</p> <p>Status</p> <p>State</p> <p>SubStatus</p> <p>General</p> <p>Title: Capex Req Id</p> <p>Sub-Title:</p> <p>Representation:</p> <p>Card Type:</p> <p>Chart Type:</p> <p>Data</p> <p>Measure: Type 31</p> <p>Dimension: </p> <p>Filters</p>

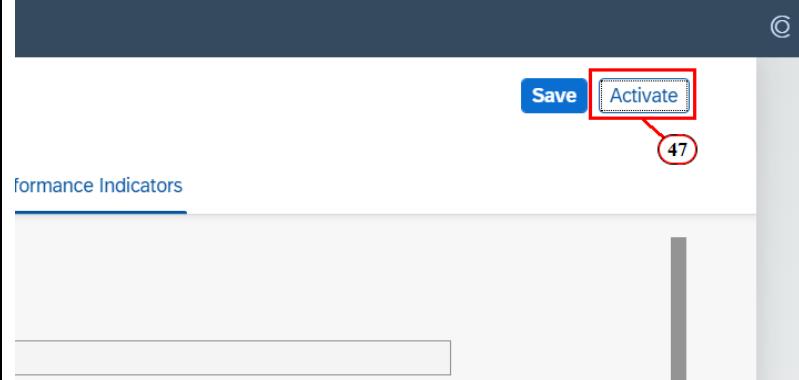
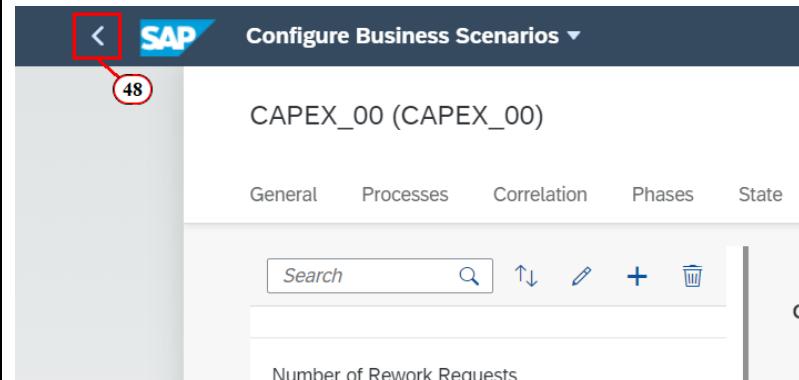
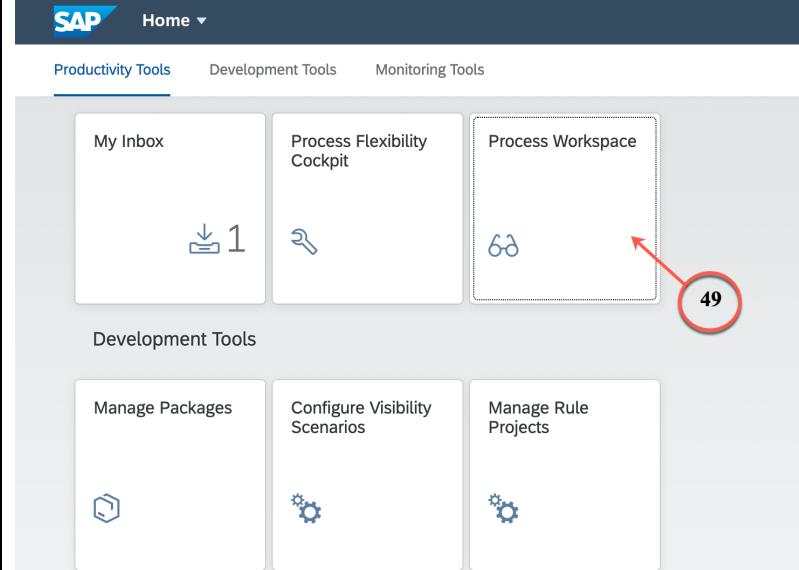
Explanation	Screenshot						
<p><i>Rework</i> in an approval process lead to delays and increases overall operational cost. So, you will now create a 3rd custom process performance indicator to track <i>Number of Rework Requests</i> in a Header Chart.</p> <p>88. Click  to add another Performance Indicator.</p>							
<p>Provide the following details:</p> <table border="1" data-bbox="164 973 577 1142"> <tr> <td>Title</td> <td>Number of Rework Requests</td> </tr> <tr> <td>Sub-Title</td> <td></td> </tr> <tr> <td>ID</td> <td>Number_of_Rework_Requests</td> </tr> </table> <p>89. Click .</p>	Title	Number of Rework Requests	Sub-Title		ID	Number_of_Rework_Requests	
Title	Number of Rework Requests						
Sub-Title							
ID	Number_of_Rework_Requests						
<p>90. Select <i>Number of Reworks requested</i> from the Attribute dropdown.</p>							

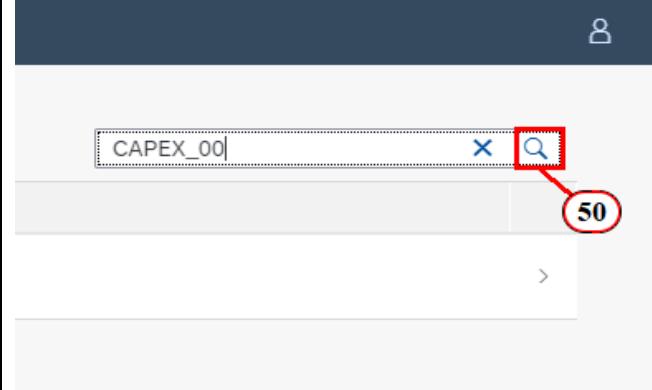
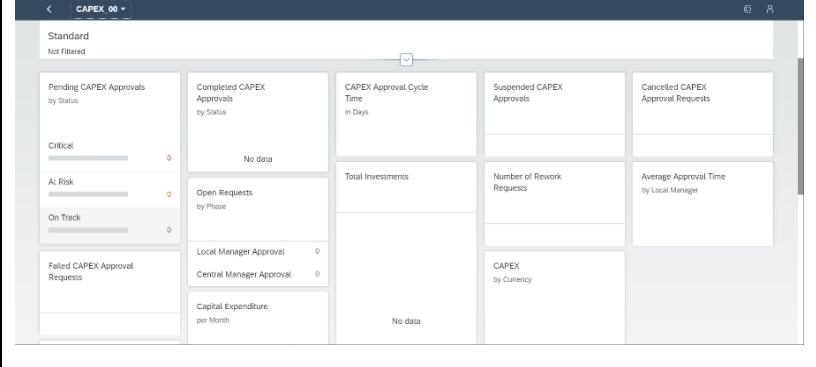
Explanation	Screenshot						
<p>Similarly, create 4th and 5th custom process performance indicator to track overall time taken to approve the capital investment request in form of <i>Average Approval Time</i> by Local & Central Managers displayed as the <i>Header</i> chart.</p> <p>In any process, the overall time taken to complete the process is always a key performance metrics, as it indicates any bottlenecks in the process in real-time and helps business user to take appropriate actions to unblock the business process.</p> <p>91. Click  to create a Performance Indicator.</p>							
<p>Provide the following details:</p> <table border="1" data-bbox="164 1030 662 1199"> <tr> <td>Title</td> <td>Average Approval Time</td> </tr> <tr> <td>Sub-Title</td> <td>by Local Manager</td> </tr> <tr> <td>ID</td> <td>Average_Approval_Time_By_LM</td> </tr> </table> <p>92. Click .</p>	Title	Average Approval Time	Sub-Title	by Local Manager	ID	Average_Approval_Time_By_LM	
Title	Average Approval Time						
Sub-Title	by Local Manager						
ID	Average_Approval_Time_By_LM						
<p>93. Select Average Approval Time for Local Manager from the Measure dropdown.</p>							

Explanation	Screenshot						
<p>Similarly, create another <i>Average Approval Time</i> performance indicator for <i>Central Manager</i> with the following details:</p> <table border="1" data-bbox="164 544 577 734"> <tr> <td>Title</td> <td>Average Approval Time</td> </tr> <tr> <td>Sub-Title</td> <td>by Central Manager</td> </tr> <tr> <td>ID</td> <td>Average_Approval_Time_CM</td> </tr> </table> <p>94. Click OK.</p>	Title	Average Approval Time	Sub-Title	by Central Manager	ID	Average_Approval_Time_CM	
Title	Average Approval Time						
Sub-Title	by Central Manager						
ID	Average_Approval_Time_CM						
<p>95. Select <i>Average Approval Time for Central Manager</i> from the Measure dropdown.</p>							

Explanation	Screenshot						
<p>Now create 6th custom process performance indicator to track the <i>total amount of the capital expenditure requests</i> have been raised over past months shown as <i>Line Chart</i>.</p> <p>Enter the following details:</p> <table border="1" data-bbox="166 601 579 762"> <tr> <td>Title</td> <td>Capital Expenditure</td> </tr> <tr> <td>Sub-Title</td> <td>per Month</td> </tr> <tr> <td>ID</td> <td>Capital_Expenditure</td> </tr> </table> <p>96. Click OK.</p>	Title	Capital Expenditure	Sub-Title	per Month	ID	Capital_Expenditure	
Title	Capital Expenditure						
Sub-Title	per Month						
ID	Capital_Expenditure						
<p>97. Select Line Chart from the Representation dropdown.</p>							
<p>98. Select the Measure as CAPEX and Dimension as Month from the respective dropdowns.</p>							

Explanation	Screenshot						
<p>Now create 7th custom process performance indicator to track the <i>return of investment</i> over past months shown as <i>List Chart</i>.</p> <p>Enter the following details:</p> <table border="1" data-bbox="166 629 584 730"> <tr> <td>Title</td><td>ROI</td></tr> <tr> <td>Sub-Title</td><td>per Month</td></tr> <tr> <td>ID</td><td>ROI</td></tr> </table> <p>99. Click OK</p>	Title	ROI	Sub-Title	per Month	ID	ROI	
Title	ROI						
Sub-Title	per Month						
ID	ROI						
<p>100. Select ROI as the Measure and Month as the Dimension from the respective dropdowns.</p>							
<p>101. Click Save.</p>							

Explanation	Screenshot
<p>Now we have completed configuring all the custom performance indicators.</p> <p>102. Click Activate to activate the visibility scenario.</p> <p>Once you activate the visibility scenario, it becomes live and you can start tracking the process from <i>Process Workspace</i>.</p>	
<p>103. Click SAP to go back to the Home Page of the Workflow Management launchpad.</p>	
<p>104. Click the Process Workspace tile to view all activated visibility scenarios.</p>	

Explanation	Screenshot						
<p>105.If needed, search for the visibility scenario by entering the name of your visibility scenario in the Search Box and click  .</p>							
<p>106.You should see the activated visibility scenario and click to navigate into the dashboard.</p>	 <table border="1"> <thead> <tr> <th colspan="2">Business Scenarios (1)</th> </tr> <tr> <th>Scenario</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>CAPEX_00</td> <td>Capital Expenditure Business Scenario</td> </tr> </tbody> </table>	Business Scenarios (1)		Scenario	Description	CAPEX_00	Capital Expenditure Business Scenario
Business Scenarios (1)							
Scenario	Description						
CAPEX_00	Capital Expenditure Business Scenario						
<p>You will see the Visibility Scenario dashboard.</p> <p>Note that it will have no data. In the next section you will deal with that.</p>							

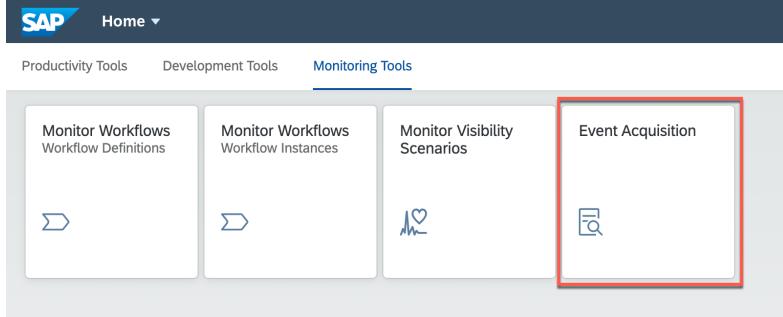
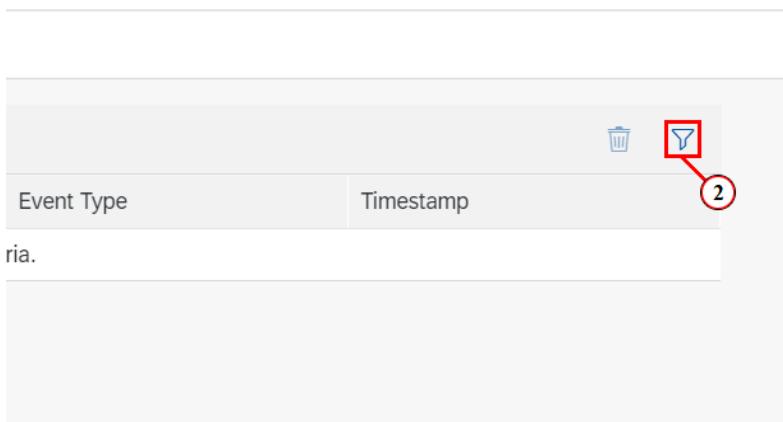
CONFIGURE AND MONITOR PROCESS VISIBILITY SCENARIOS

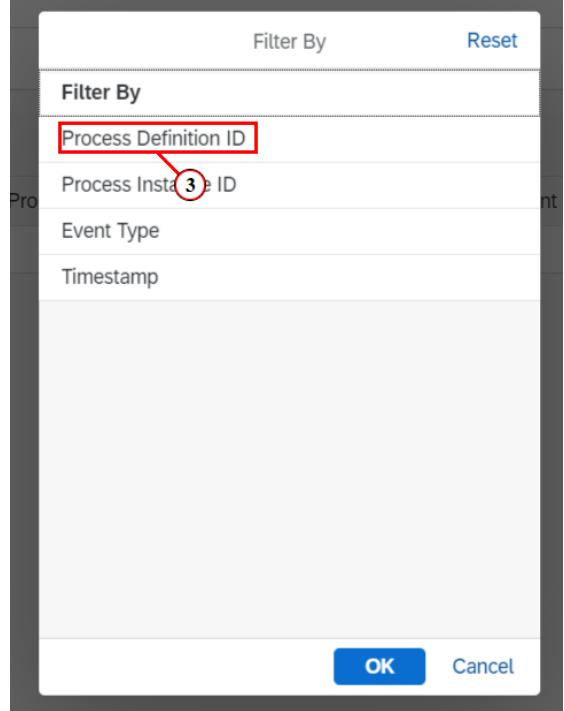
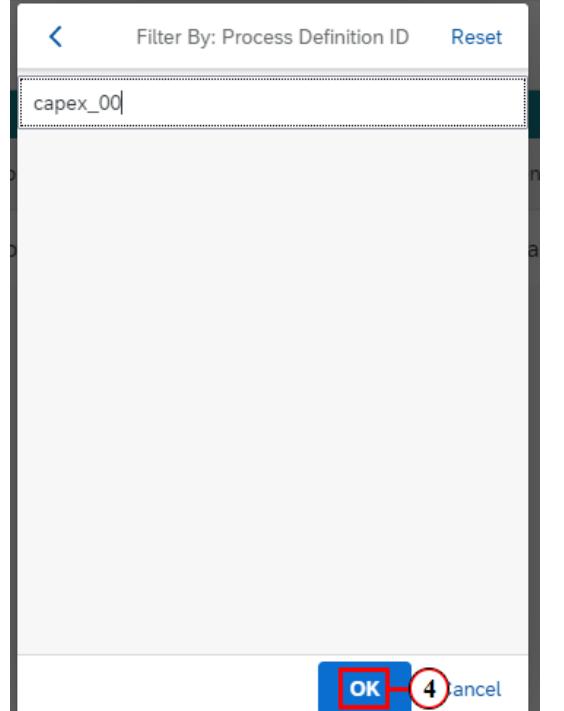
Once the visibility scenario is activated, events of the workflow instances that are started after the visibility scenario was activated will be auto subscribed and pushed to process visibility. Workflow attributes configured in the workflow are pushed as context attributes.

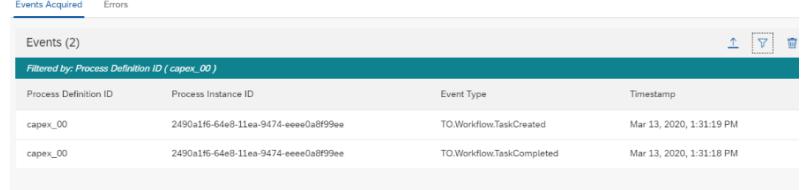
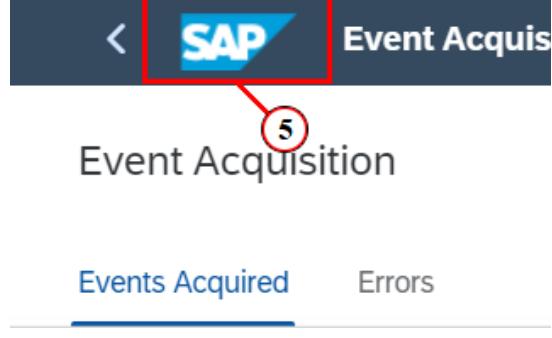
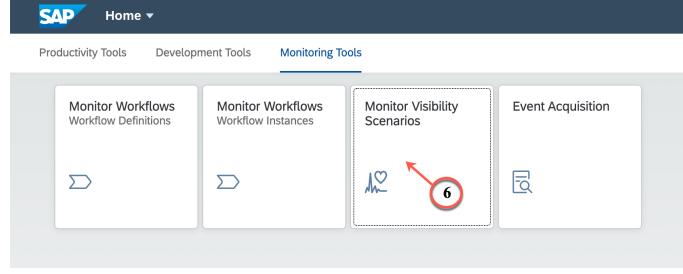
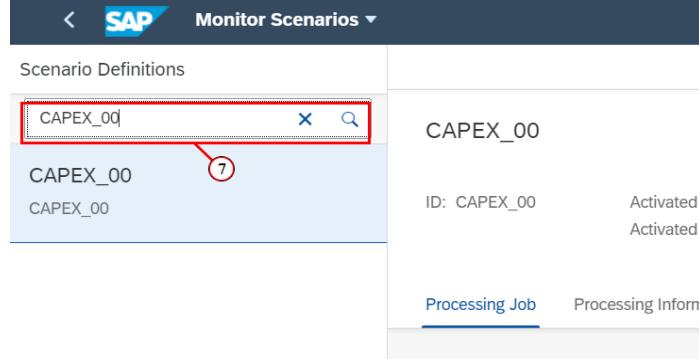
The following events are pushed from Workflow to Process Visibility service

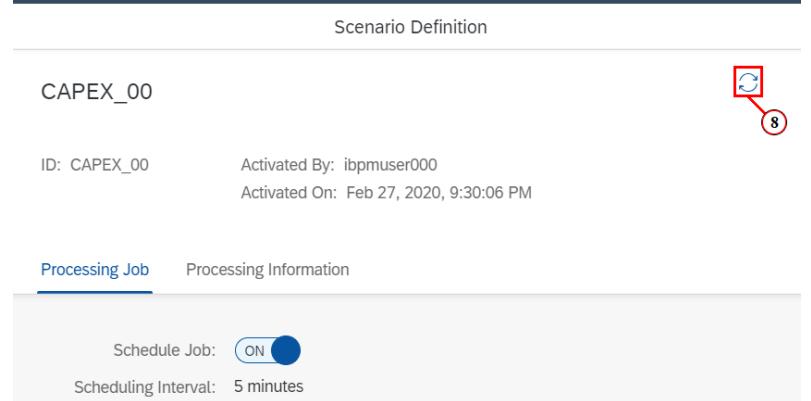
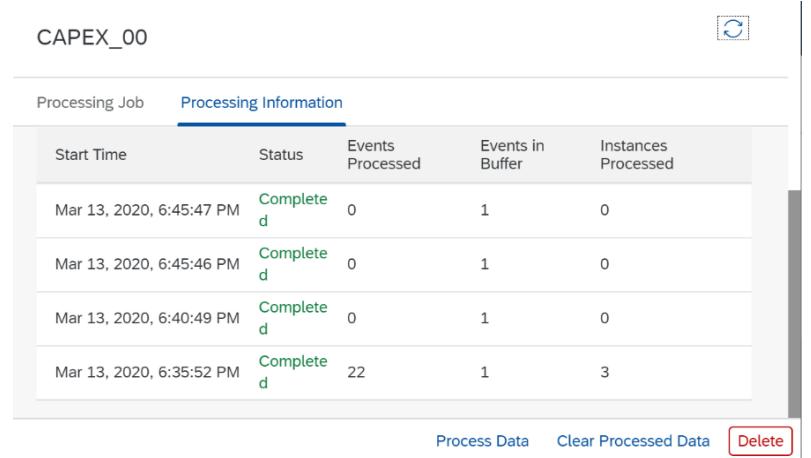
Workflow Activity	Event
Workflow lifecycle events	Started, Completed, Canceled, Suspended
User Task	Created, Completed
Intermediate message event	Triggered, Reached

To start the workflow that you have associated with the visibility scenario, follow section **EXECUTE AND MONITOR WORKFLOW** from Exercise 1

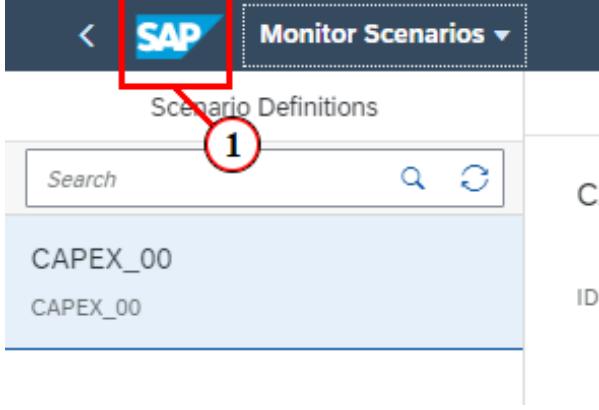
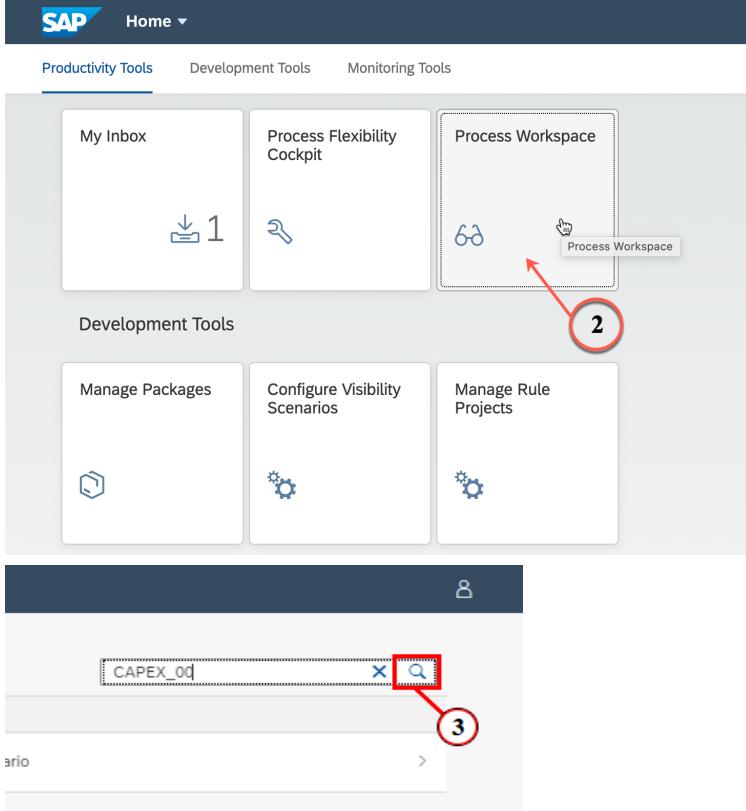
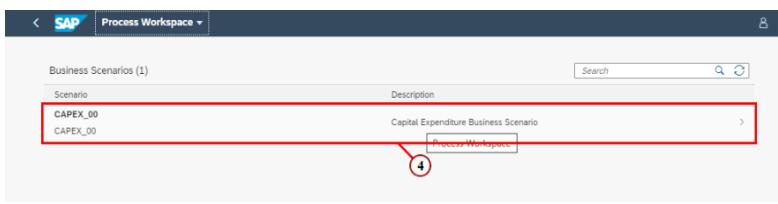
Explanation	Screenshot
<p>In this unit, you will learn how to view the events acquired by the process visibility service. This is more of an <i>Administrative</i> task and therefore need <i>PVTenantAdmin</i> and <i>PVOperator</i> roles to access the application.</p> <p>107. From the Workflow Management Launchpad Home Page, click Event Acquisition tile.</p>	
<p>Using the Event Acquisition application, you can do the following:</p> <ul style="list-style-type: none"> View the events that have been acquired by process visibility. Monitor errors while consuming the events pushed to the service. <p>108. Click filter  to select the process for which you can view its respective events.</p>	

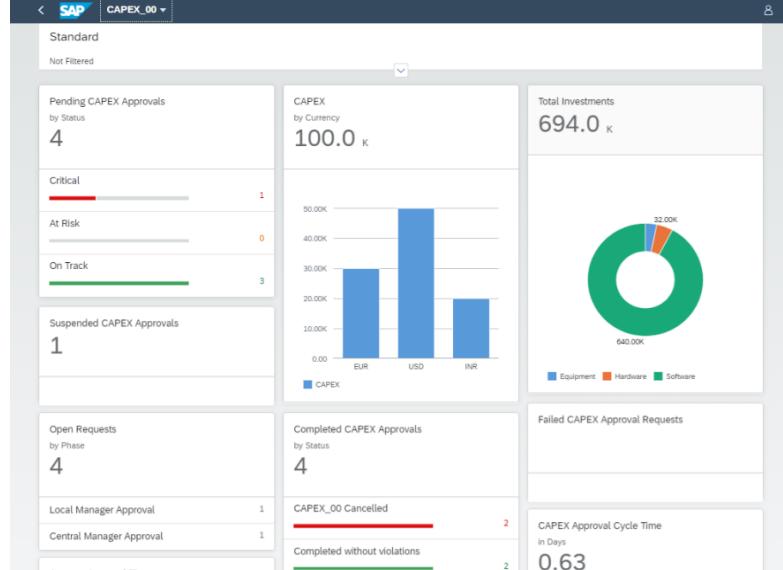
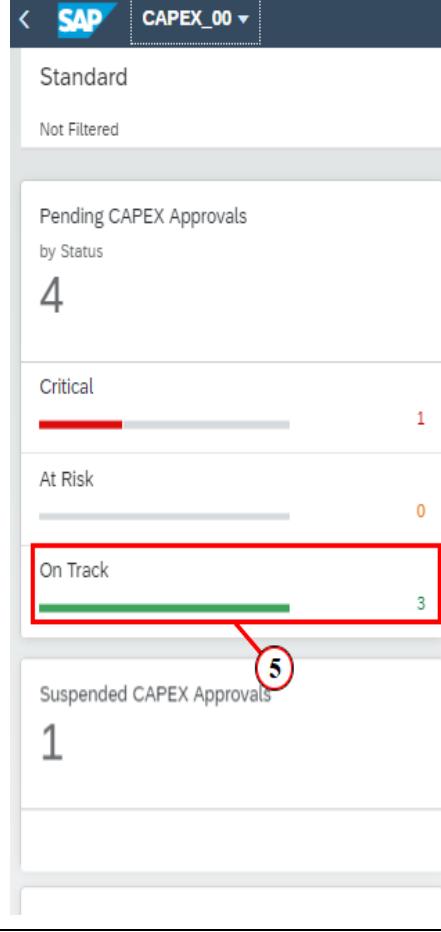
Explanation	Screenshot
<p>109.Click Process Definition in the filter dialog.</p>	 <p>The screenshot shows a 'Filter By' dialog box. At the top right are 'Filter By' and 'Reset' buttons. Below them is a section titled 'Filter By' with four options: 'Process Definition ID' (which is highlighted with a red box), 'Process Instance ID' (with a circled number '3' near the 'ID' part), 'Event Type', and 'Timestamp'. At the bottom are 'OK' and 'Cancel' buttons.</p>
<p>Enter CAPEX_00 which refers to the workflow definition id that was imported in your visibility scenario.</p> <p>110.Click OK.</p>	 <p>The screenshot shows a 'Filter By: Process Definition ID' dialog box. It has a back arrow, a 'Filter By' button, a 'Reset' button, and an input field containing 'capex_00'. At the bottom are 'OK' and 'Cancel' buttons, with the 'OK' button circled in red with the number '4'.</p>

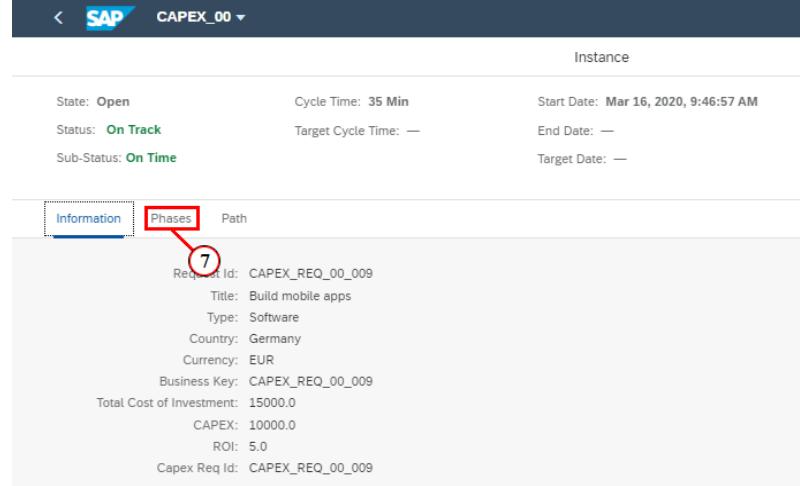
Explanation	Screenshot
<p>You should be able to see the events corresponding to the Process Definition ID.</p>	 <p>The screenshot shows a table titled "Events Acquired" with two rows. The columns are "Process Definition ID", "Process Instance ID", "Event Type", and "Timestamp". The first row has Process Definition ID "capex_00", Process Instance ID "2490a1f6-64e8-11ea-9474-eeee0a8f99ee", Event Type "TO.Workflow.TaskCreated", and Timestamp "Mar 13, 2020, 1:31:19 PM". The second row has the same values. A red box highlights the "Events Acquired" tab at the top.</p>
<p>111.Click  to go back to the Home Page of the Worflow Management launchpad.</p>	 <p>The screenshot shows the SAP Cloud Platform Workflow Management home page. It features a title "Event Acquis" with a red box around it and a circled number "5" with an arrow pointing to it. Below the title is the text "Event Acquisition". At the bottom, there are tabs for "Events Acquired" and "Errors".</p>
<p>112.Click Monitor Visibility Scenarios tile.</p>	 <p>The screenshot shows the "Monitoring Tools" section of the SAP Cloud Platform Workflow Management interface. It includes tiles for "Monitor Workflows Workflow Definitions", "Monitor Workflows Workflow Instances", "Monitor Visibility Scenarios" (which is highlighted with a red box and circled number "6"), and "Event Acquisition". An arrow points from the circled number "6" to the "Monitor Visibility Scenarios" tile.</p>
<p>113.If needed, search for your scenario by providing the scenario name as CAPEX_00.</p>	 <p>The screenshot shows the "Monitor Scenarios" search results. A search bar at the top contains "CAPEX_00" with a circled number "7" next to it. Below the search bar, the results show "CAPEX_00" listed twice. To the right, detailed information is shown for the first result: "ID: CAPEX_00", "Activated I", "Activated I", and tabs for "Processing Job" and "Processing Inform".</p>

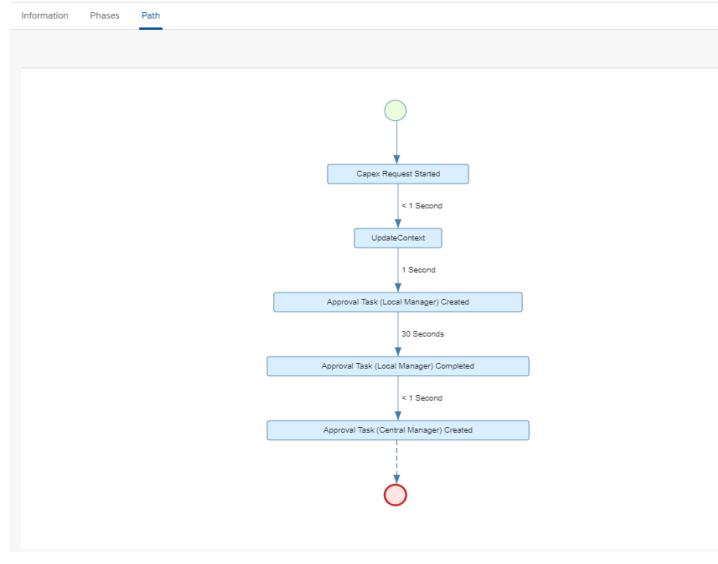
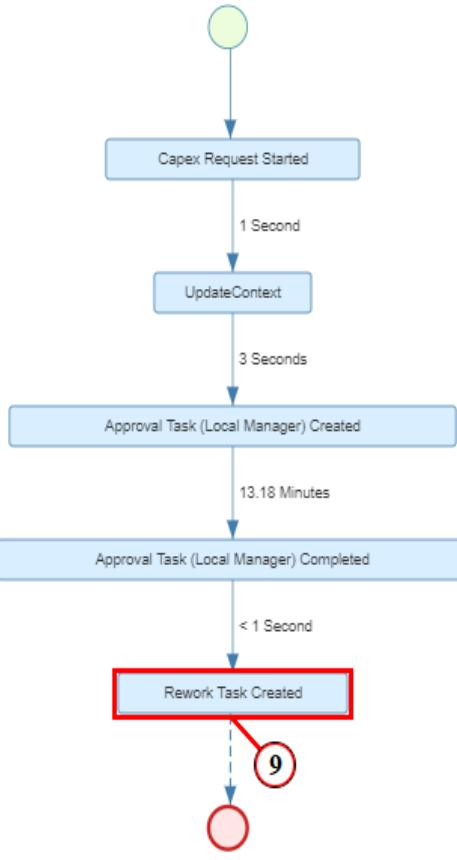
Explanation	Screenshot																											
<p>Note:</p> <ul style="list-style-type: none"> For a given scenario, processing of events is auto scheduled on scenario activation. The default schedule frequency for processing is 5 minutes. Click the refresh button (on top-right corner) to see the fresh processing information. You can see all the events from your scenario definition. The Process Data and Clear Processed Data buttons on the footer enable you to manually trigger the processing the data and clearing the processed data respectively. Once you have cleared the processed data, you can click again <i>Processed Data</i> to reprocess the subscribed events. <p>114. Click .</p>	 <p>Scenario Definition</p> <p>CAPEX_00</p> <p>ID: CAPEX_00 Activated By: ibpmuser000 Activated On: Feb 27, 2020, 9:30:06 PM</p> <p>Processing Job Processing Information</p> <p>Schedule Job: ON Scheduling Interval: 5 minutes</p>																											
<p>All processed job information will be shown.</p>	 <p>CAPEX_00</p> <table border="1"> <thead> <tr> <th data-bbox="747 1170 845 1191">Processing Job</th> <th data-bbox="861 1170 1062 1191">Processing Information</th> </tr> <tr> <th data-bbox="747 1212 845 1233">Start Time</th> <th data-bbox="861 1212 948 1233">Status</th> <th data-bbox="964 1212 1051 1233">Events Processed</th> <th data-bbox="1067 1212 1170 1233">Events in Buffer</th> <th data-bbox="1186 1212 1419 1233">Instances Processed</th> </tr> </thead> <tbody> <tr> <td data-bbox="747 1269 845 1290">Mar 13, 2020, 6:45:47 PM</td> <td data-bbox="861 1269 948 1290">Completed</td> <td data-bbox="964 1269 980 1290">0</td> <td data-bbox="1067 1269 1083 1290">1</td> <td data-bbox="1186 1269 1202 1290">0</td> </tr> <tr> <td data-bbox="747 1326 845 1347">Mar 13, 2020, 6:45:46 PM</td> <td data-bbox="861 1326 948 1347">Completed</td> <td data-bbox="964 1326 980 1347">0</td> <td data-bbox="1067 1326 1083 1347">1</td> <td data-bbox="1186 1326 1202 1347">0</td> </tr> <tr> <td data-bbox="747 1383 845 1404">Mar 13, 2020, 6:40:49 PM</td> <td data-bbox="861 1383 948 1404">Completed</td> <td data-bbox="964 1383 980 1404">0</td> <td data-bbox="1067 1383 1083 1404">1</td> <td data-bbox="1186 1383 1202 1404">0</td> </tr> <tr> <td data-bbox="747 1440 845 1461">Mar 13, 2020, 6:35:52 PM</td> <td data-bbox="861 1440 948 1461">Completed</td> <td data-bbox="964 1440 997 1461">22</td> <td data-bbox="1067 1440 1083 1461">1</td> <td data-bbox="1186 1440 1202 1461">3</td> </tr> </tbody> </table> <p>Process Data Clear Processed Data </p>	Processing Job	Processing Information	Start Time	Status	Events Processed	Events in Buffer	Instances Processed	Mar 13, 2020, 6:45:47 PM	Completed	0	1	0	Mar 13, 2020, 6:45:46 PM	Completed	0	1	0	Mar 13, 2020, 6:40:49 PM	Completed	0	1	0	Mar 13, 2020, 6:35:52 PM	Completed	22	1	3
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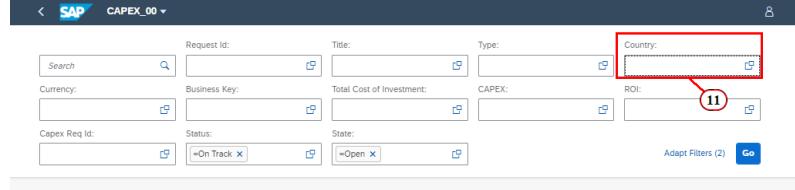
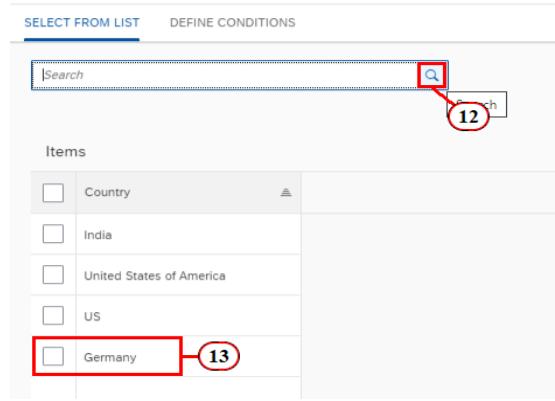
ACCESS PROCESS WORKSPACE

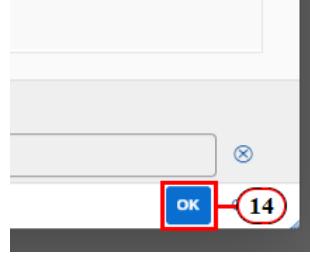
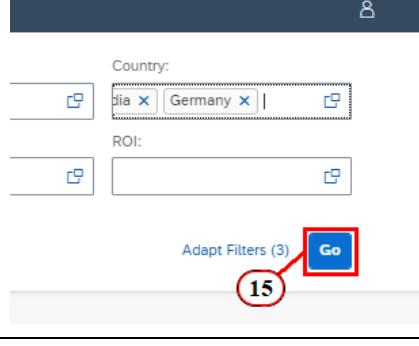
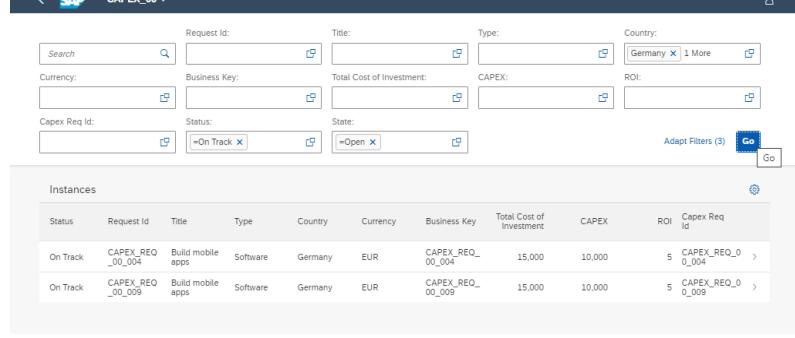
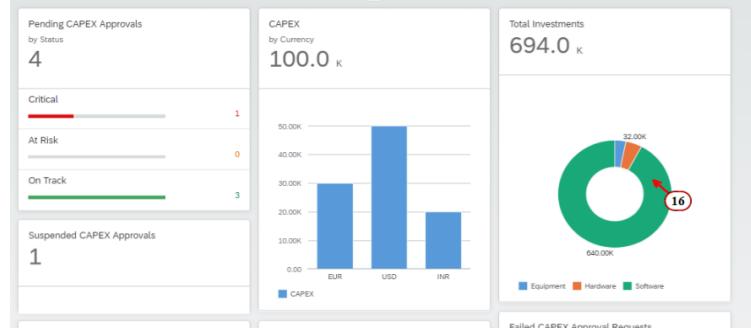
Explanation	Screenshot
<p>115.Click SAP to go back to the Home Page of the Worflow Management launchpad.</p>	
<p>116.Click Process Workspace.</p> <p>117. If needed, enter the visibility scenario name in the search field and click .</p>	
<p>118.Select the Visibility Scenario by clicking on it.</p>	

Explanation	Screenshot								
<p>You will see the Process Performance Indicator tiles you configured in the dashboard. You can rearrange the tiles in order of preference by dragging-and-dropping them.</p>	 <p>The screenshot shows the SAP Cloud Platform Workflow Management CAPEX_00 dashboard. It features several KPI tiles:</p> <ul style="list-style-type: none"> Pending CAPEX Approvals by Status: 4 (Critical: 1, At Risk: 0, On Track: 3) CAPEX by Currency: 100.0 K (EUR: ~30K, USD: ~50K, INR: ~20K) Total Investments: 694.0 K (Equipment: ~640K, Hardware: ~22K, Software: ~2K) Suspended CAPEX Approvals: 1 Open Requests by Phase: 4 (Local Manager Approval: 1, Central Manager Approval: 1) Completed CAPEX Approvals by Status: 4 (CAPEX_00 Cancelled: 2, Completed without violations: 2) CAPEX Approval Cycle Time in Days: 0.63 Failed CAPEX Approval Requests: 0 								
<p>119. Let us drill down into a process instance. For this, click any of the PPI you are interested.</p> <p>For example, to view what CAPEX approval processes are On Track KPI, click.</p>	 <p>The screenshot shows a detailed view of pending CAPEX approvals. A red box highlights the "On Track" status bar, which is circled with a red number 5. The status bar shows 3 items.</p> <table border="1"> <thead> <tr> <th colspan="2">Pending CAPEX Approvals by Status</th> </tr> </thead> <tbody> <tr> <td>Critical</td> <td>1</td> </tr> <tr> <td>At Risk</td> <td>0</td> </tr> <tr> <td>On Track</td> <td>3</td> </tr> </tbody> </table>	Pending CAPEX Approvals by Status		Critical	1	At Risk	0	On Track	3
Pending CAPEX Approvals by Status									
Critical	1								
At Risk	0								
On Track	3								

Explanation	Screenshot
<p>All On Track CAPEX approval process instances will be listed out. The table will have rows corresponding to the context of the process instance and custom attributes that you configured while creating visibility scenario.</p> <p>120. Select an instance to further drill down and get more details.</p>	
<p>Here you can see all information corresponding to the process as configured in Default Attributes.</p> <p>121. Let's now navigate to Phases.</p>	
<p>Here you will see a graphical representation of the phases with started and end timestamp. The filled-checkbox indicate that the process is currently running at that phase.</p> <p>Note: You can also change the representation by clicking .</p> <p>122. Let's now view the Path of the process instance.</p>	

Explanation	Screenshot
<p>Path is represented as flow diagram which shows the transition from one activity to another, together with the time taken.</p> <p>Note: You can also choose the representation by clicking</p> 	 <pre> graph TD Start(()) --> CapexRequestStarted[Capex Request Started] CapexRequestStarted -- "< 1 Second" --> UpdateContext[UpdateContext] UpdateContext -- "1 Second" --> ApprovalTaskLocalManagerCreated[Approval Task (Local Manager) Created] ApprovalTaskLocalManagerCreated -- "30 Seconds" --> ApprovalTaskLocalManagerCompleted[Approval Task (Local Manager) Completed] ApprovalTaskLocalManagerCompleted -- "< 1 Second" --> ApprovalTaskCentralManagerCreated[Approval Task (Central Manager) Created] ApprovalTaskCentralManagerCreated --> End(()) </pre>
<p>For example: A process that has undergone (or pushed to) rework will look like this.</p>	 <pre> graph TD Start(()) --> CapexRequestStarted[Capex Request Started] CapexRequestStarted -- "1 Second" --> UpdateContext[UpdateContext] UpdateContext -- "3 Seconds" --> ApprovalTaskLocalManagerCreated[Approval Task (Local Manager) Created] ApprovalTaskLocalManagerCreated -- "13.18 Minutes" --> ApprovalTaskLocalManagerCompleted[Approval Task (Local Manager) Completed] ApprovalTaskLocalManagerCompleted -- "< 1 Second" --> ReworkTaskCreated[Rework Task Created] ReworkTaskCreated --> Start ReworkTaskCreated --> End(()) </pre>

Explanation	Screenshot
<p>123. You can navigate back to the previous pages by clicking on .</p>	
<p>You can filter through the Instances by using the filters based on the context or state/status. For example, if there are multiple countries, you can filter by preference.</p> <p>Note: You can try this out by creating multiple workflow instances and providing varied details, such as different country, currency etc.</p> <p>124. For example, let's filter by country</p> <p>Country:</p> <div style="border: 1px dashed #ccc; width: 150px; height: 20px; margin-bottom: 5px;"></div> 	
<p>125. Clicking  with no data will bring up the value help.</p> <p>126. Select the filter as:</p> <div style="display: flex; align-items: center;"> <input type="checkbox"/> Germany </div>	

Explanation	Screenshot
<p>127.Click  to apply the filters</p>	
<p>128.Click  to search based on the filters</p>	
<p>The filtered list can be viewed.</p>	
<p>As mentioned earlier, you can click any PPI to view it's details. For example, in case you wish to view all the CAPEX approvals for Software click the section in the donut chart.</p>	

Explanation	Screenshot																																																																		
<p>All instances pertaining to CAPEX for software expenses will be listed.</p> <p>Feel free to explore the capabilities by creating new workflow instances and viewing the dashboard in real-time.</p>	<p>The screenshot shows a search interface for 'CAPEX_00' with various filters applied. Below the filters, a table titled 'Instances' lists several workflow instances. The columns include Status, Request Id, Title, Type, Country, Currency, Business Key, Total Cost of Investment, CAPEX, ROI, and Capex Req Id. The data shows five entries, each with a status like 'On Track' or 'Completed without violations'.</p> <table border="1"> <thead> <tr> <th>Status</th> <th>Request Id</th> <th>Title</th> <th>Type</th> <th>Country</th> <th>Currency</th> <th>Business Key</th> <th>Total Cost of Investment</th> <th>CAPEX</th> <th>ROI</th> <th>Capex Req Id</th> </tr> </thead> <tbody> <tr> <td>On Track</td> <td>CAPEX_REQ_00_004</td> <td>Build mobile apps</td> <td>Software</td> <td>Germany</td> <td>EUR</td> <td>CAPEX_REQ_00_004</td> <td>15,000</td> <td>10,000</td> <td>5</td> <td>CAPEX_REQ_0_0_004</td> </tr> <tr> <td>On Track</td> <td>CAPEX_REQ_00_009</td> <td>Build mobile apps</td> <td>Software</td> <td>Germany</td> <td>EUR</td> <td>CAPEX_REQ_00_009</td> <td>15,000</td> <td>10,000</td> <td>5</td> <td>CAPEX_REQ_0_0_009</td> </tr> <tr> <td>Completed without violations</td> <td>CAPEX_REQ_00_002</td> <td>Build mobile apps</td> <td>Software</td> <td>India</td> <td>INR</td> <td>CAPEX_REQ_00_001</td> <td>300,000</td> <td>10,000</td> <td>5</td> <td>CAPEX_REQ_0_0_002</td> </tr> <tr> <td>CAPEX_00 Cancelled</td> <td>CAPEX_REQ_00_002</td> <td>Build mobile apps</td> <td>Software</td> <td>India</td> <td>INR</td> <td>CAPEX_REQ_00_002</td> <td>300,000</td> <td>10,000</td> <td>5</td> <td>CAPEX_REQ_0_0_002</td> </tr> <tr> <td>Completed without violations</td> <td>CAPEX_REQ_00_001</td> <td>Build mobile apps</td> <td>Software</td> <td>Germany</td> <td>EUR</td> <td>CAPEX_REQ_00_001</td> <td>10,000</td> <td>10,000</td> <td>5</td> <td>CAPEX_REQ_0_0_001</td> </tr> </tbody> </table>	Status	Request Id	Title	Type	Country	Currency	Business Key	Total Cost of Investment	CAPEX	ROI	Capex Req Id	On Track	CAPEX_REQ_00_004	Build mobile apps	Software	Germany	EUR	CAPEX_REQ_00_004	15,000	10,000	5	CAPEX_REQ_0_0_004	On Track	CAPEX_REQ_00_009	Build mobile apps	Software	Germany	EUR	CAPEX_REQ_00_009	15,000	10,000	5	CAPEX_REQ_0_0_009	Completed without violations	CAPEX_REQ_00_002	Build mobile apps	Software	India	INR	CAPEX_REQ_00_001	300,000	10,000	5	CAPEX_REQ_0_0_002	CAPEX_00 Cancelled	CAPEX_REQ_00_002	Build mobile apps	Software	India	INR	CAPEX_REQ_00_002	300,000	10,000	5	CAPEX_REQ_0_0_002	Completed without violations	CAPEX_REQ_00_001	Build mobile apps	Software	Germany	EUR	CAPEX_REQ_00_001	10,000	10,000	5	CAPEX_REQ_0_0_001
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SUMMARY

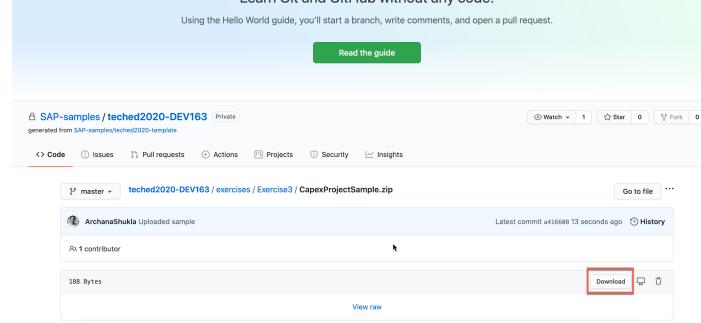
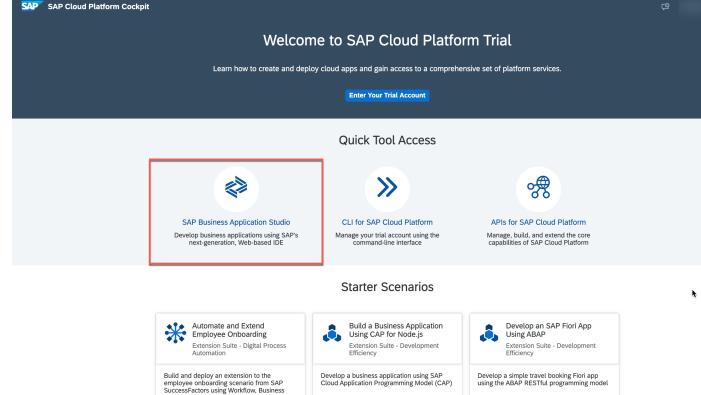
You have completed the exercise!

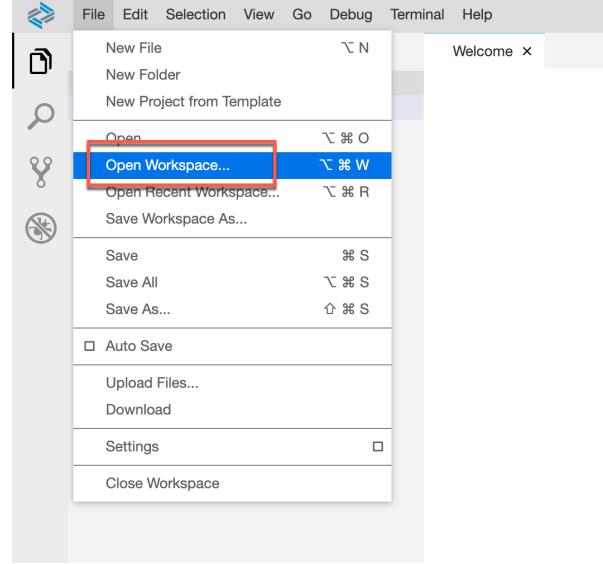
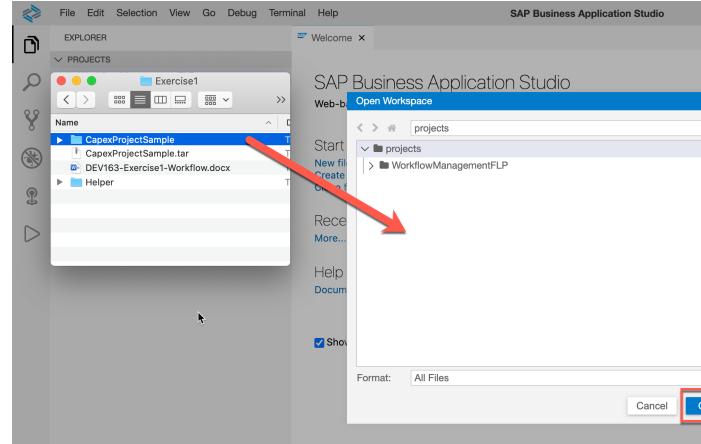
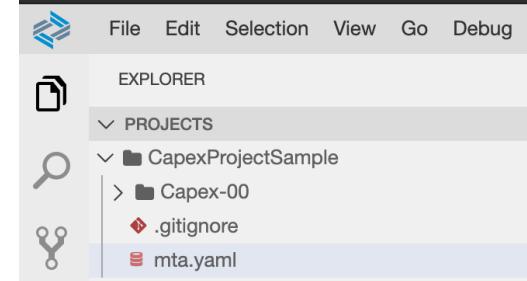
You are now able to:

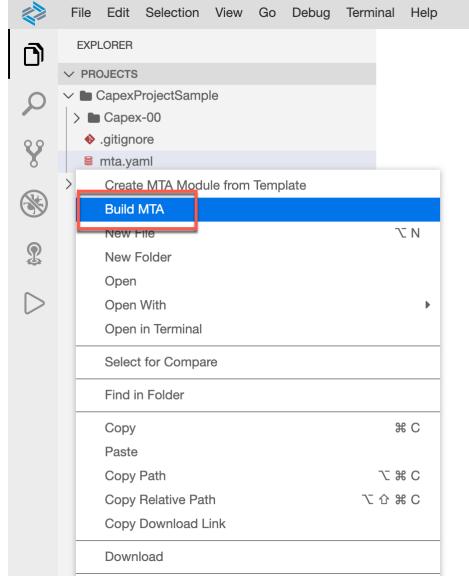
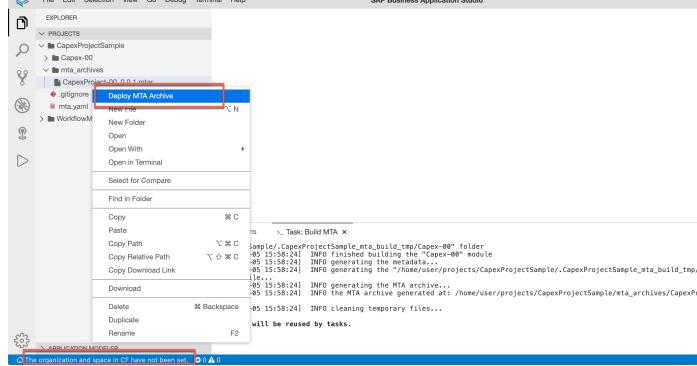
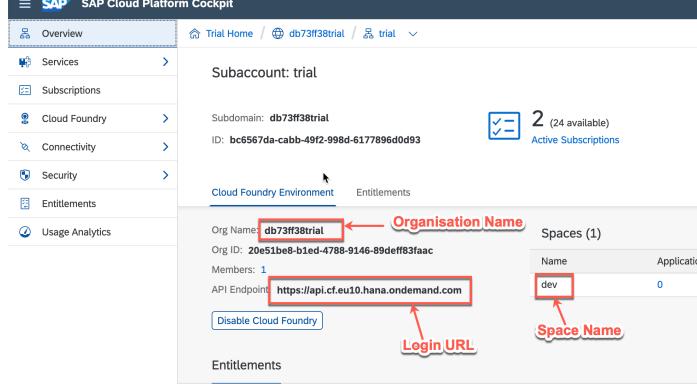
1. Create a new visibility scenario using **Configure Visibility Scenario** application.
2. Add workflow as a process participant.
3. Configure the visibility scenario with **phases** and **calculated attributes**.
4. Create **process performance indicators** that help you track your key business KPIs.
5. Use **Event Acquisition** application to view the acquired events.
6. Use **Monitor Scenarios** application to schedule processing of events.
7. Access **Process Workspace** to track your end to end processes and key business KPIs in real-time

APPENDIX

Import and Deploy Sample Workflow

Explanation	Screenshot
<p>1. Download CapexProjectSample.zip from given GitHub link in your local file system and extract the files.</p> <p>https://github.com/SAP-samples/teched2020-DEV163/blob/master/exercises/Exercise3/CapexProjectSample.zip</p>	 <p>The screenshot shows a GitHub repository page for 'SAP-samples / teched2020-DEV163'. The repository has 1 star and 0 forks. A file named 'CapexProjectSample.zip' is listed, uploaded by 'ArchanaShukla' 13 seconds ago. The file size is 188 Bytes. A red box highlights the 'Download' button.</p>
<p>2. Logon to SAP Cloud Platform Trial Home Page with your trial username and password.</p> <p>3. Choose SAP Business Application Studio.</p>	 <p>The screenshot shows the SAP Cloud Platform Cockpit trial home page. It features sections for 'Quick Tool Access' (SAP Business Application Studio, CLI for SAP Cloud Platform, APIs for SAP Cloud Platform), 'Starter Scenarios' (Automate and Extend Employee Onboarding, Build a Business Application Using CAP for Node.js, Develop an SAP Fiori App Using ABAP), and a 'Welcome to SAP Cloud Platform Trial' message. The SAP Business Application Studio section is highlighted with a red box.</p>

Explanation	Screenshot
<p>4. Click the Dev Space to go into the workspace and from File menu choose File Open Workspace.</p> <p>Note: If you have no dev space, click the Create Dev Space with:</p> <ul style="list-style-type: none"> ○ Application Type as SAP Fiori. ○ Extension as Workflow Management. <p>Else select PLAY  to start the space if you see the status as STOPPED.</p>	
<p>5. Drag and drop the extracted CapexProjectSample folder in the Open Workspace dialog and click Open.</p>	
<p>6. You will see that the CapexProjectSample project is imported into your workspace.</p>	

Explanation	Screenshot
<p>7. Right-click the mta.yaml file inside the CapexProjectSample folder and choose the Build MTA option.</p>	
<p>8. Once the build is completed successfully, right-click the build file inside mta_archives and choose Deploy MTA Archive.</p> <p>Note: The deployment will fail if you have not logged in to the trial account.</p> <p>Check in the bottom blue bar, if you have already logged in to your trial account. If it does not show organization-name/space-name, then click the <i>blue-bar</i> and follow the wizard to login to your trial account.</p>	
<p>9. You can get the need information about the Login URL, organization name and space name from you trial account.</p> <p>You have to login with your trial user email and password.</p> <p>A successful deployment message will be shown in the terminal once the deployment has completed successfully.</p>	

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