PARTNER

openSAP - Building AI and Sustainability Solutions on SAP BTP

Week5 - Collaborative Enterprise Planning with SAP Analytics Cloud

Exercise03 – Maintenance Cost Planning Story

This document will guide you step by step on the process of creating SAP Analytics Cloud Story for Maintenance Cost Planning.

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Table of Contents

DISCLAIMER

All functionality presented here is subject to change and may be changed by SAP at any time for any reason without notice.

OBJECTIVE

The objective of this exercise is to provide the steps needed to create SAP analytics Cloud story to enable user plan maintenance Cost

SCENARIO

This exercise follows the scenario you were introduced to in the demo Maintenance Cost & Sustainability Planning for Bagnoli & Co.
This exercise explains how to create SAP Analytics Cloud Story for Maintenance Cost Budgeting.

ENVIRONMENT ACCESS – SAP ANALYTICS CLOUD

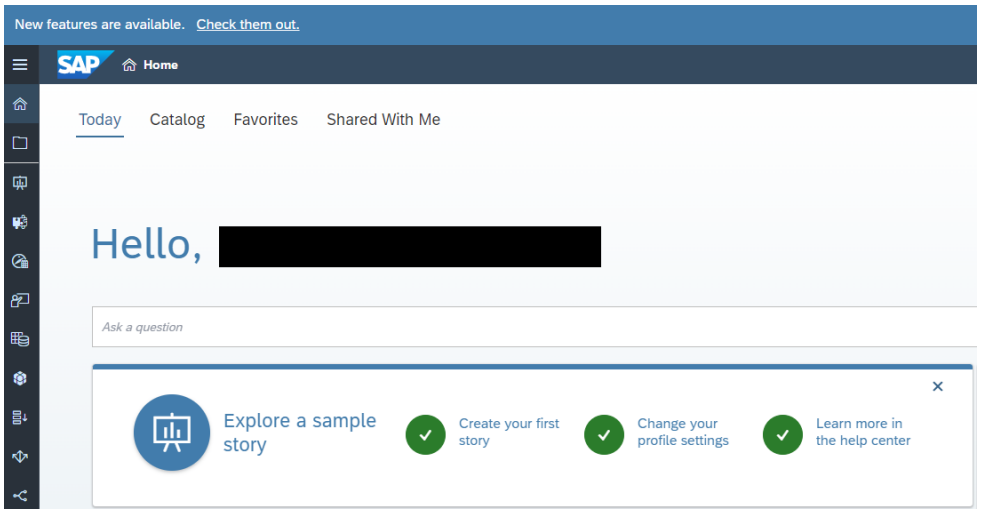
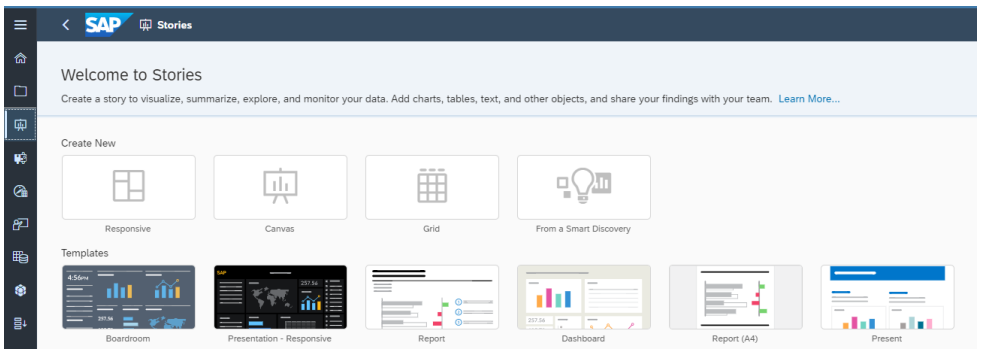
Before the exercise, please set up your SAP Analytics Cloud trial account via this tutorial: Set up your SAP Analytics Cloud Trial Account

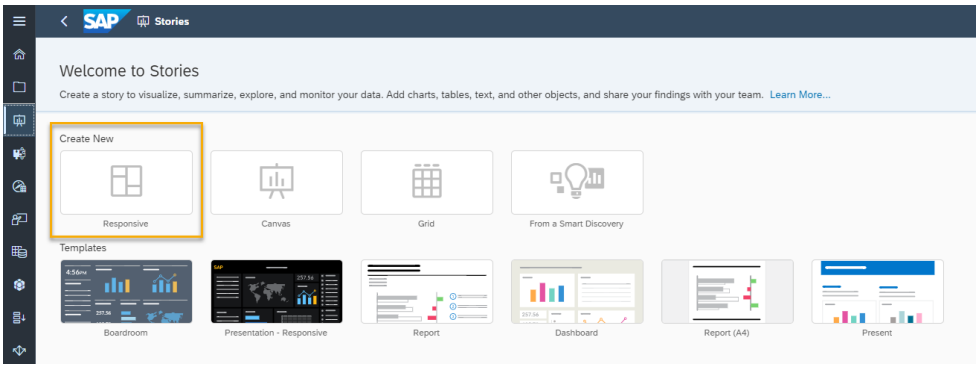
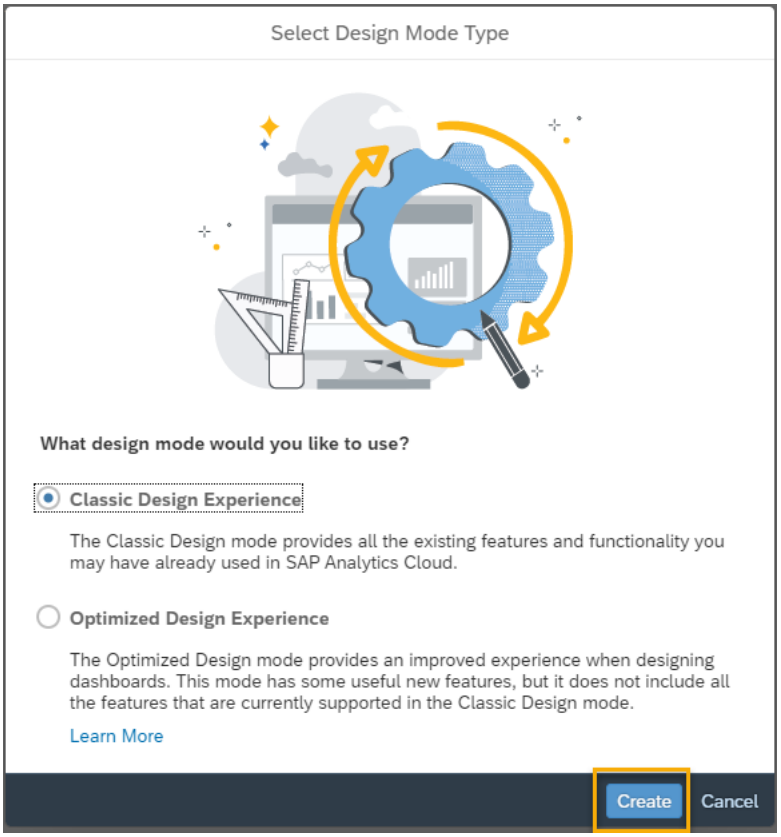
Please make sure you have already registered in order to be able to Try SAP Analytics Cloud for free

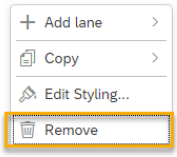
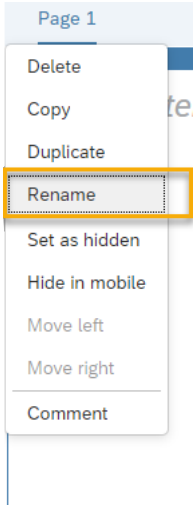
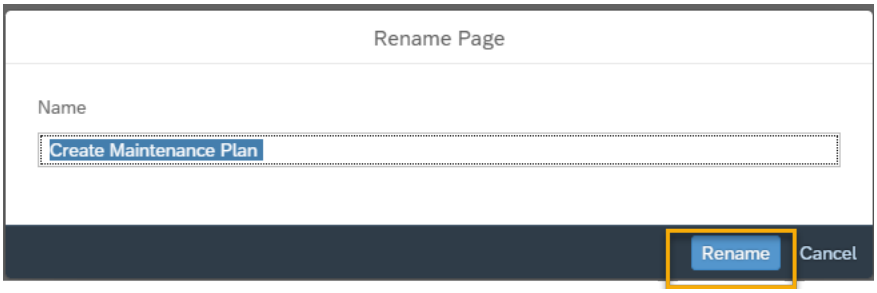
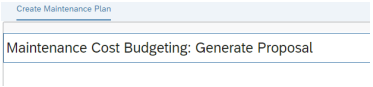
PREREQUISITES

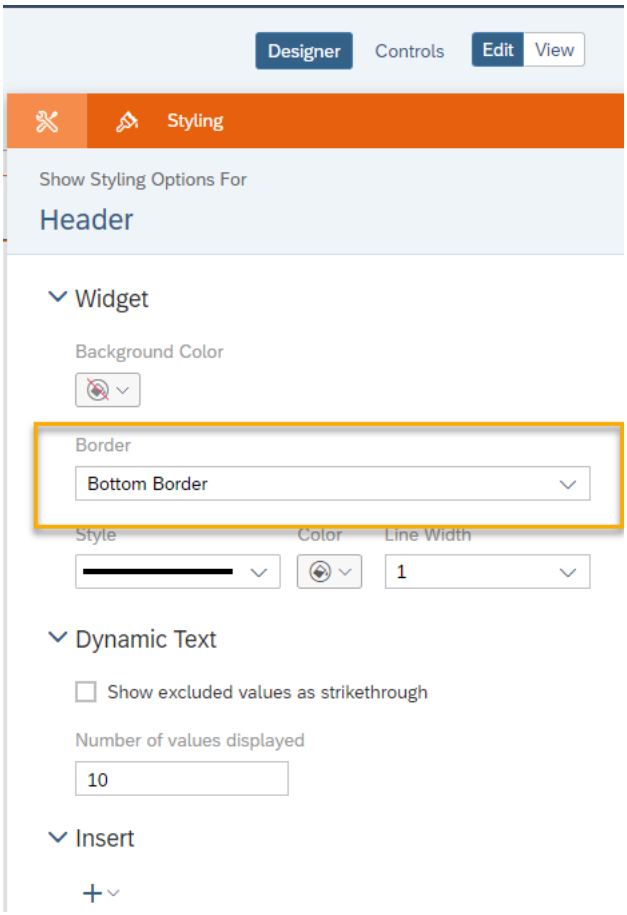
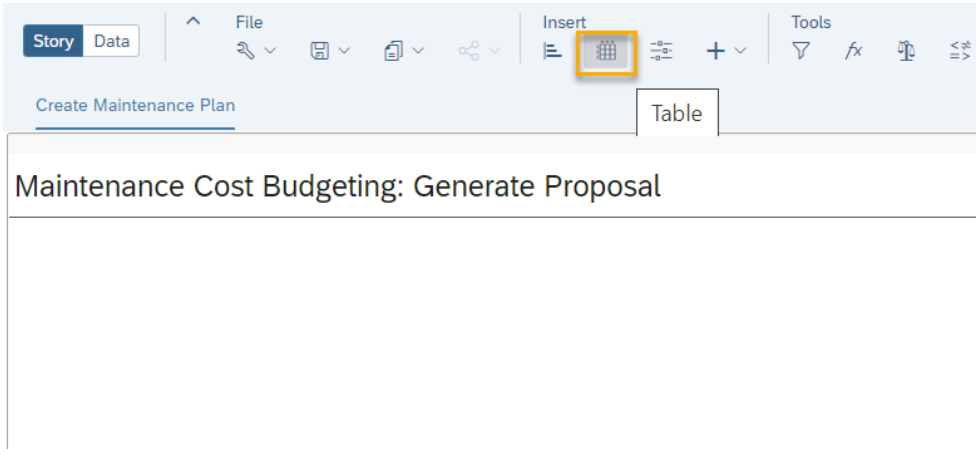
You have completed exercise 1 and 2.

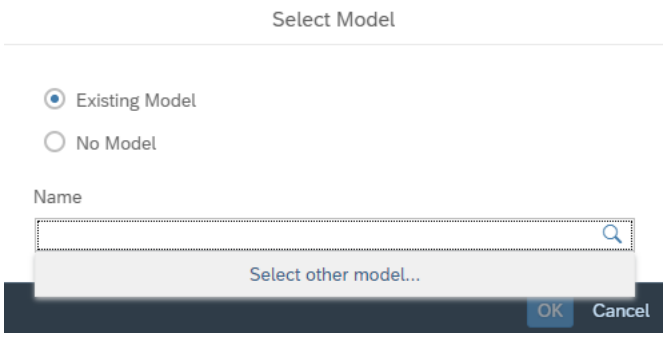
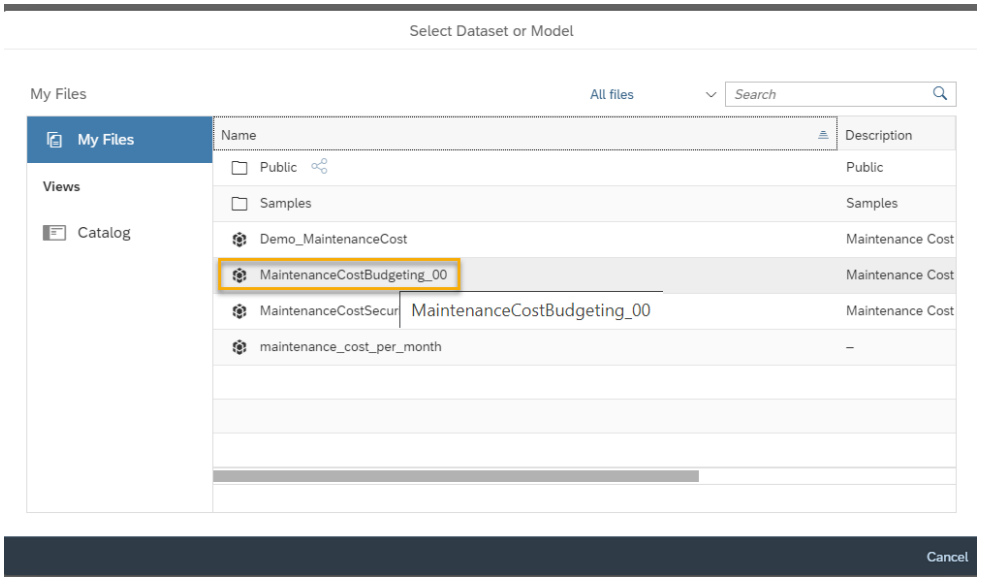
EXERCISE STEP DETAILS

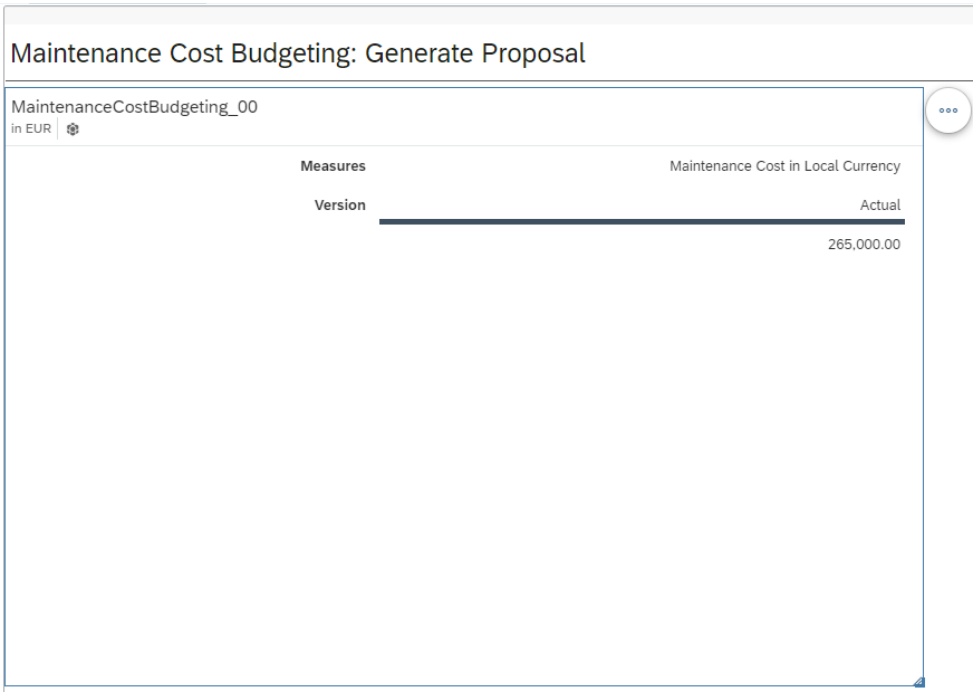
Explanation	Screenshot
Log on to your SAP Analytics Cloud trial tenant account Go to the Home Screen.	
Click on the stories  Icon, the system opens home page for Stories.	
Click on Create New -> Responsive	

Explanation	Screenshot
	
In the design mode selection pop up select Classic Design Experience and click Create	

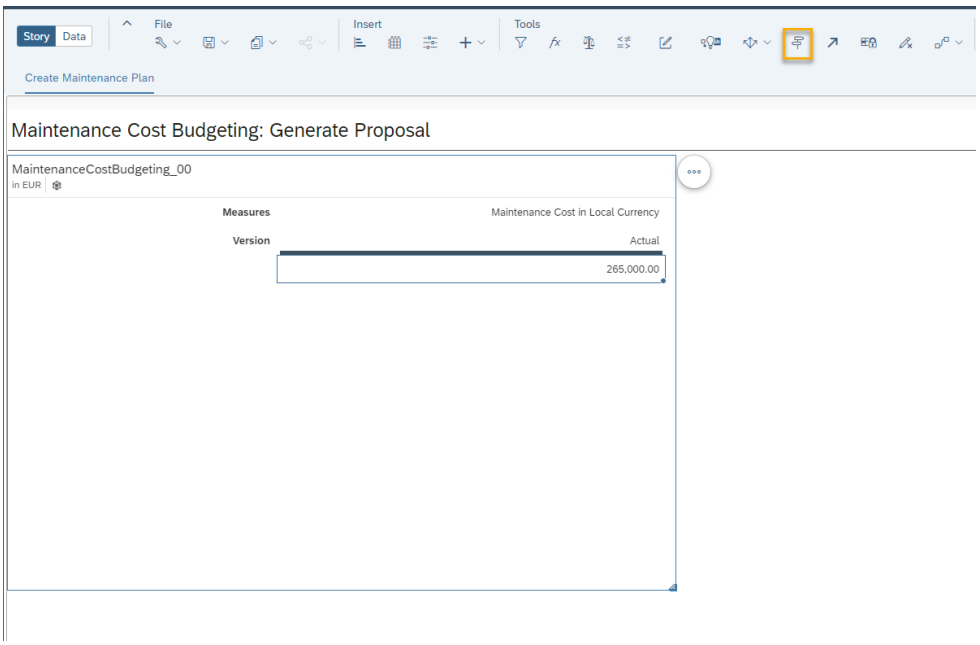
Explanation	Screenshot
Right Click on the right lane and choose Remove	
Click on the Page 1 and select Rename	
Rename the page Create Maintenance Plan and click on Rename	
Click on the title and type “Maintenance Cost Budgeting: Generate Proposal”	

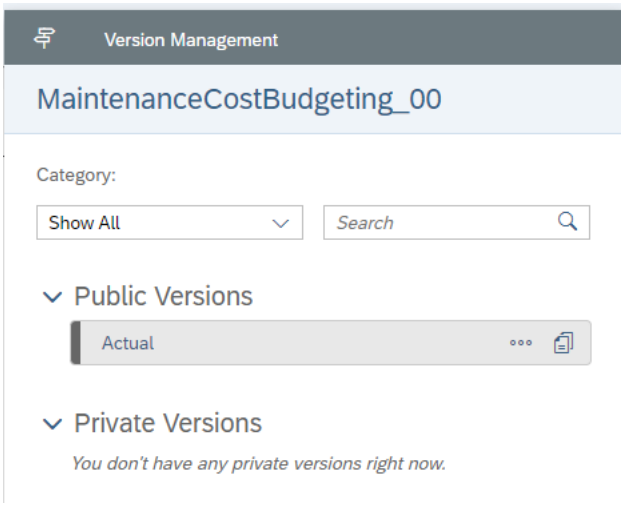
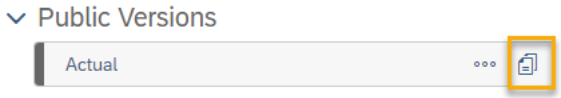
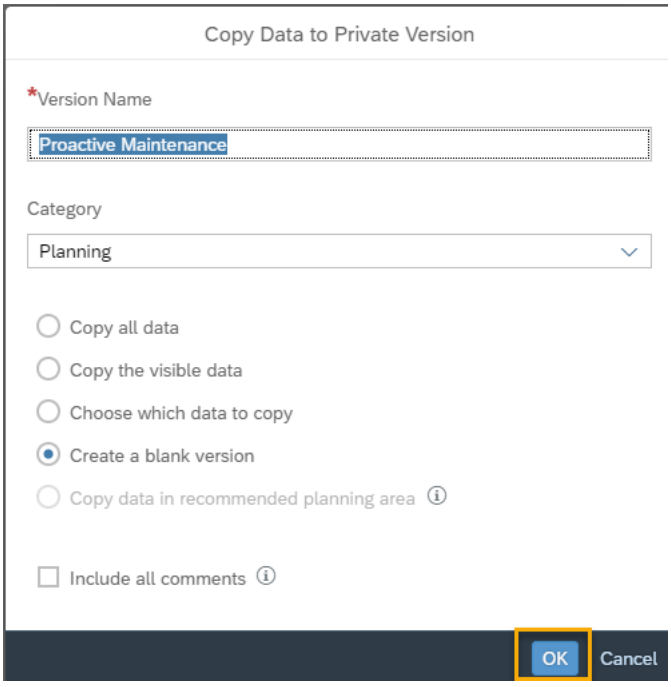
Explanation	Screenshot
Click on Designer -> Styling and in the Border select Bottom Border. Click on Designer again to come out of the styling	
In the Insert menu click on  to insert a table in the story	

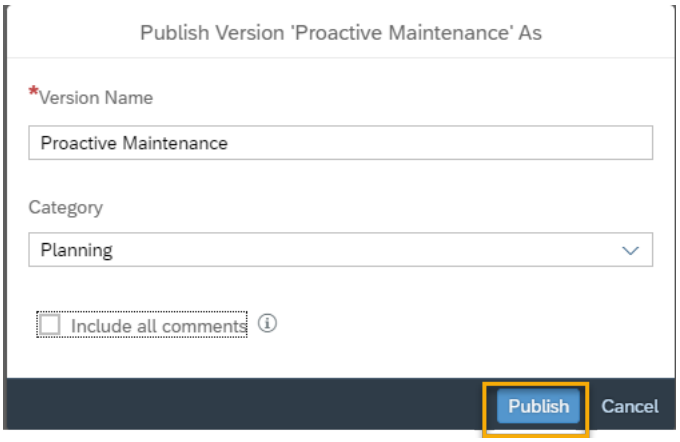
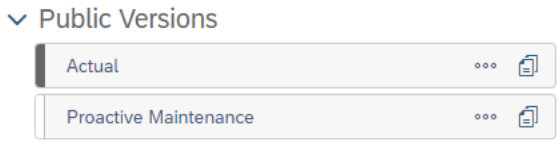
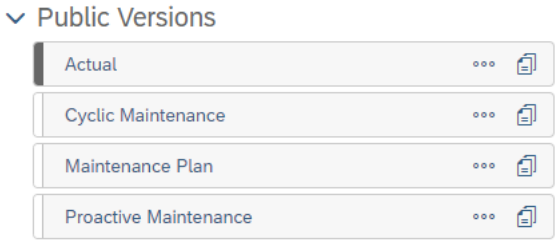
Explanation	Screenshot
In the model selection pop up click on name and select other model	
Select the maintenance cost budgeting model created in exercise 1	

Explanation	Screenshot
The table shows the Maintenance Cost Local Currency Measure and version -> Actual	

Version Managment

We need to create the Proactive Maintenance and Cyclic Maintenance Version to simulate the Plan cost of each version. To create these versions, follow the below steps, • Click on the table and select the  (Version Management) in the tolls menu • The Version Management dialog appears • In the Public Versions section Actual Version is available. Click on  • Copy Data to Private Version	 Version Management

Explanation	Screenshot
screen appears. Provide following values ○ Version Name: Proactive Maintenance ○ Category: Planning ○ Create Blank version • Click OK • System creates a private version. We need this version available for all users so we will publish this version as public version. Click  and select publish as • Provide Name: Proactive Maintenance & Category Planning & click on Publish • Repeat the same task to create public version for Cyclic Maintenance and call at “Cyclic Maintenance”. • Also create public version to store final maintenance Budget. Call it “Maintenance Plan” • After completing the steps, you will have 4 public versions	 Actual Version is available in the public version section  Copy Data to Private Version Selection  Publish to Public Version 

Explanation	Screenshot
• Close the Version Management dialogue.	Publish Proactive Maintenance Version   All Public Versions  Close Version Management

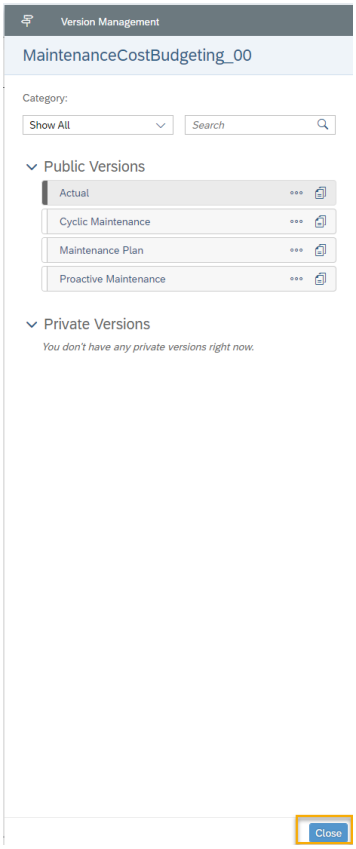
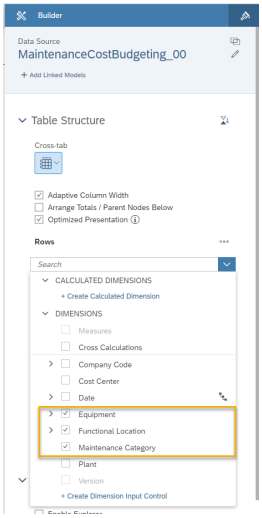
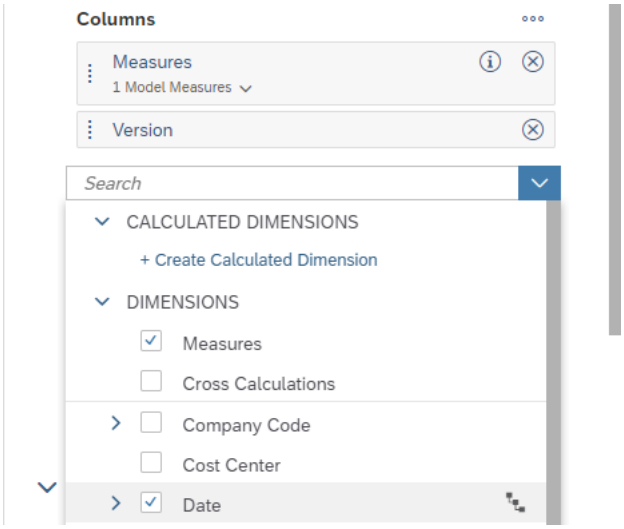
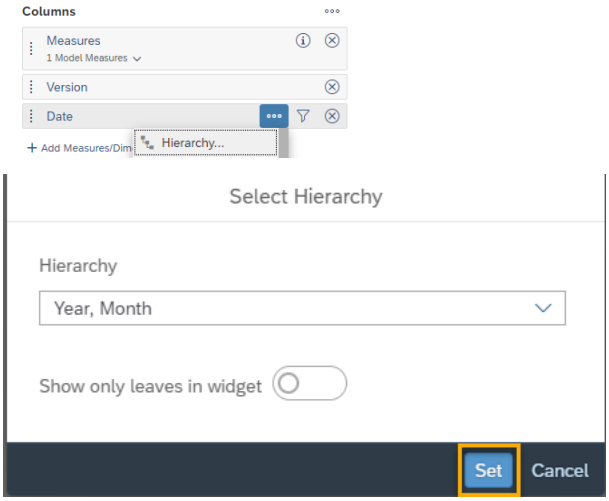
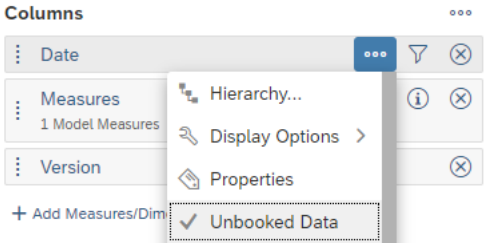
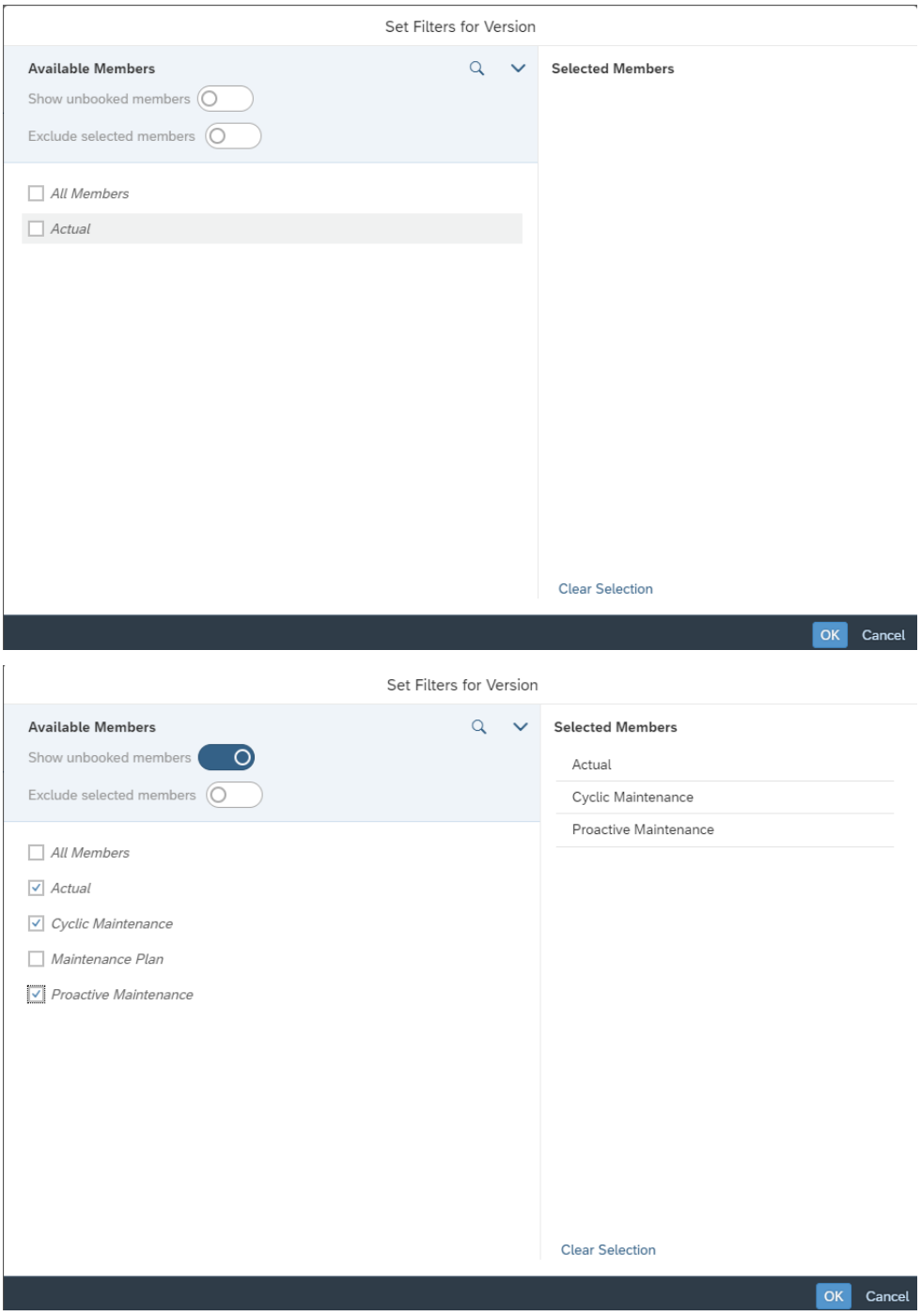
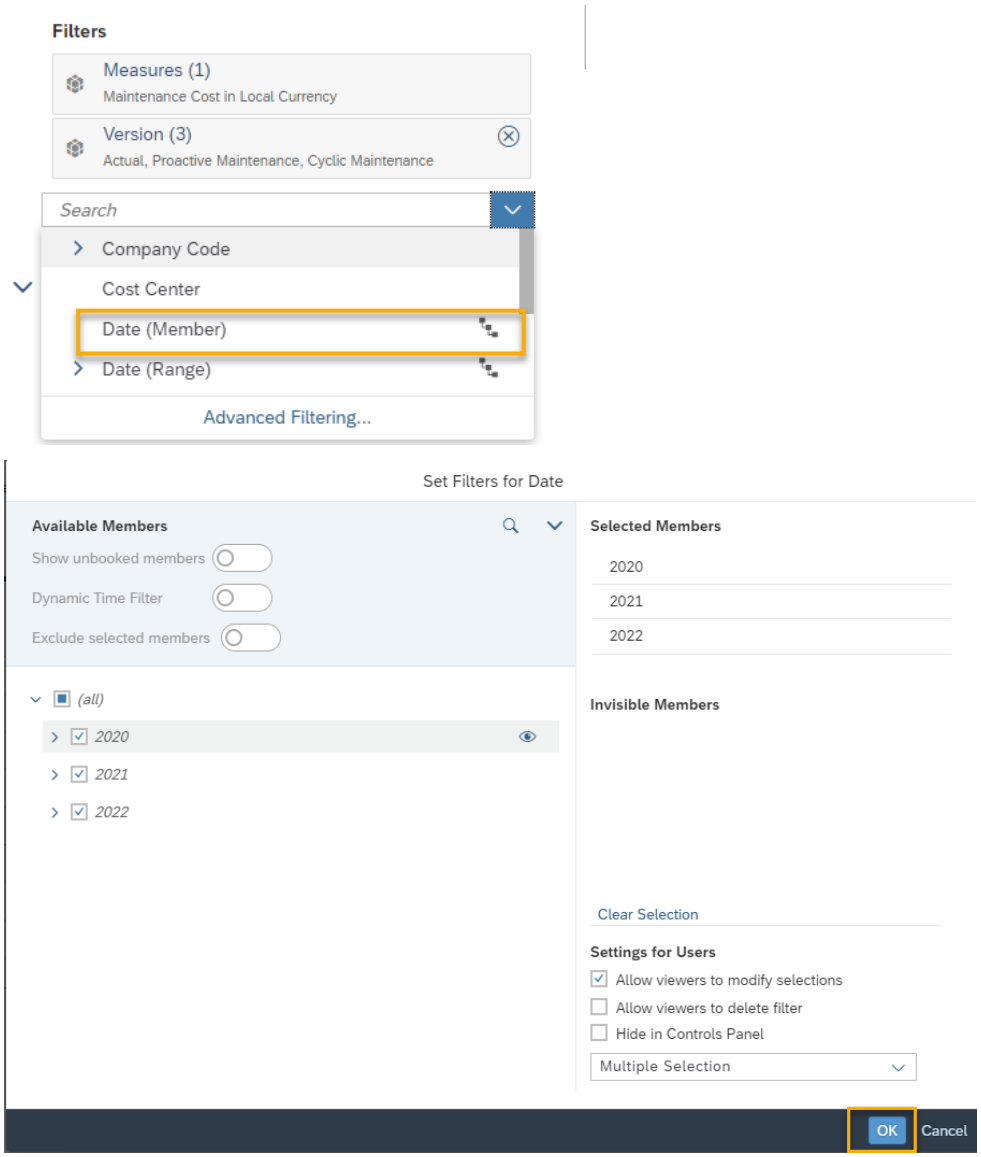
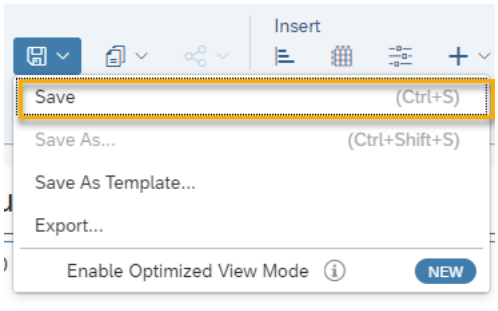
Explanation	Screenshot
	

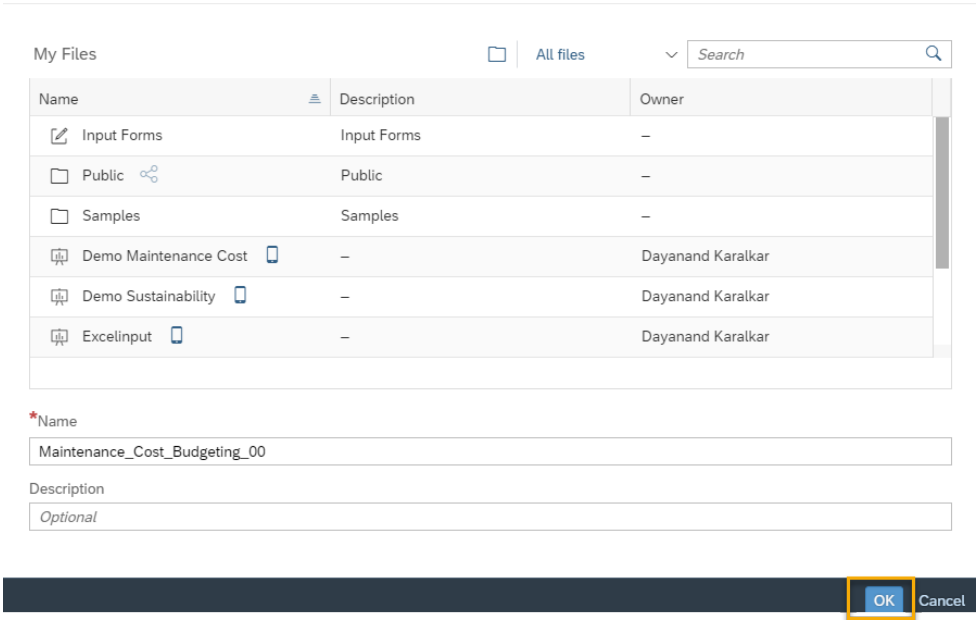
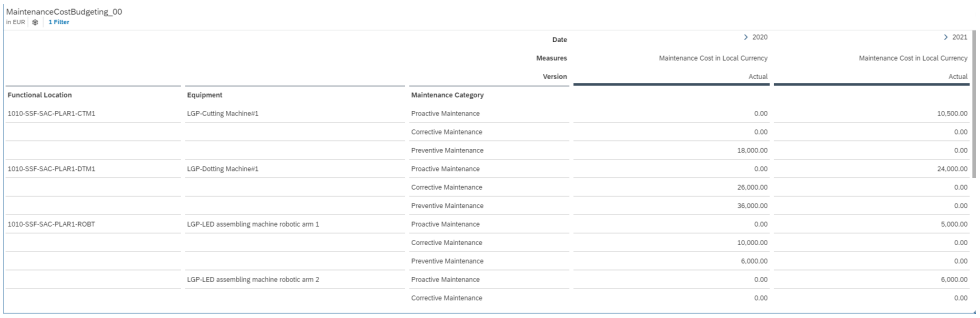
Table Configuration

In the next steps we will configure the table control. Click on the table and navigate to Designer -> Builder. In the Rows section click on + Add Measures/Dimensions and select following dimensions, • Functional Location • Equipment • Maintenance Category	Table Row Configuration 

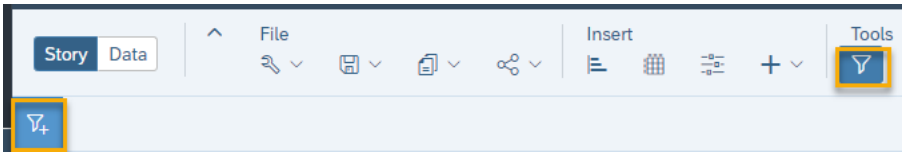
Explanation	Screenshot
In the Column Section Version and Measure is available already. Add Date dimension in the column section by clicking + Add Measures/Dimensions in the column section	
Click on ••• beside the Date dimension and click on Hierarchy. Select Year, Month as hierarchy and click on Set	
Move the Date dimension as the first dimension in the column and untick the Unbooked Data Column	

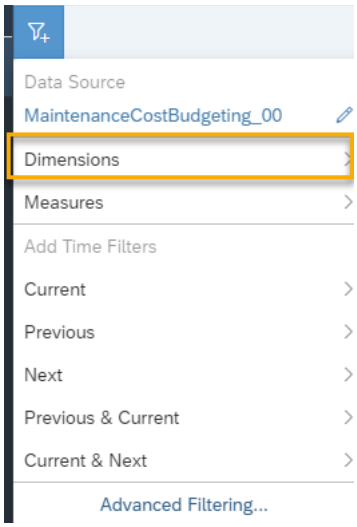
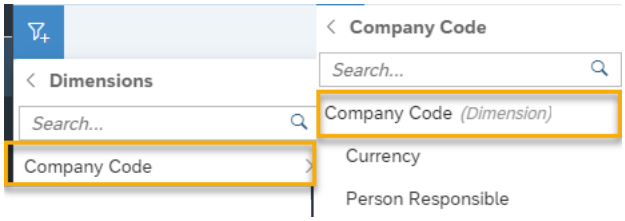
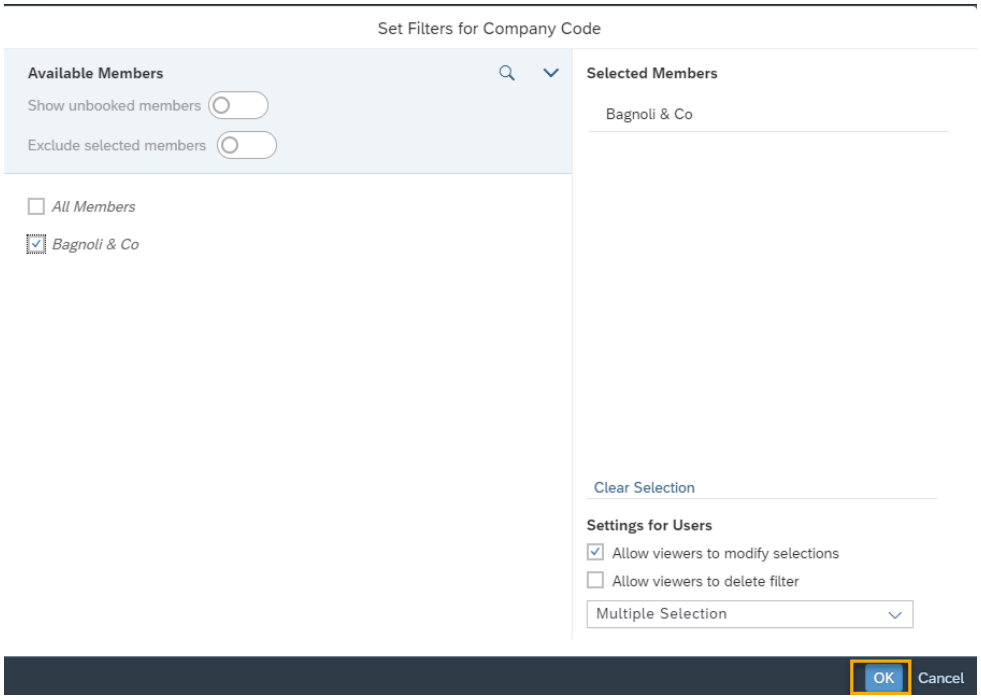
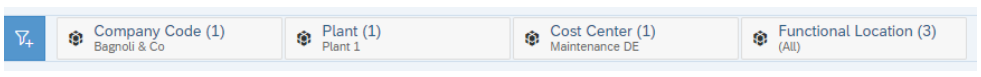
Explanation	Screenshot
In the Filters section click on Version Dimension. Remove all the versions in the selected member. Select “Show unbooked members” and select versions: Actual, Cyclic Maintenance and Proactive Maintenance and click OK	

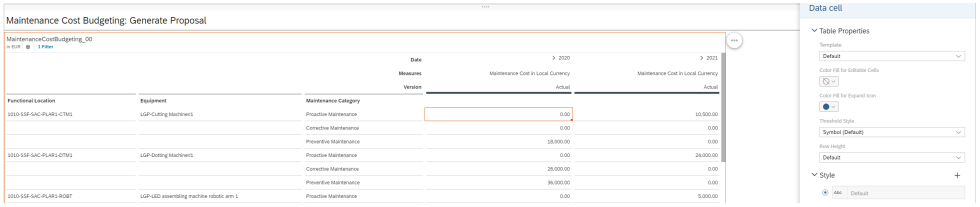
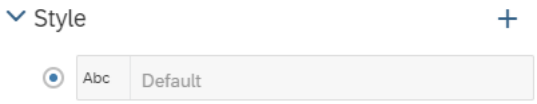
Explanation	Screenshot
In the Filters section click on + Add Filters and select Date (Member). Select 2020,2021 and 2022 and click OK	
Click on to Save the story.	

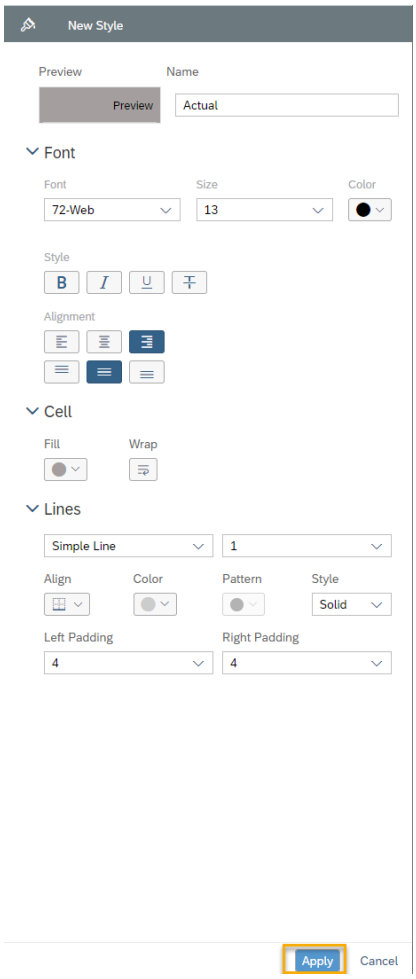
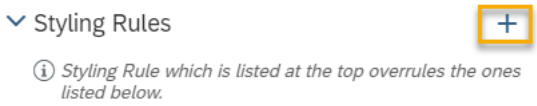
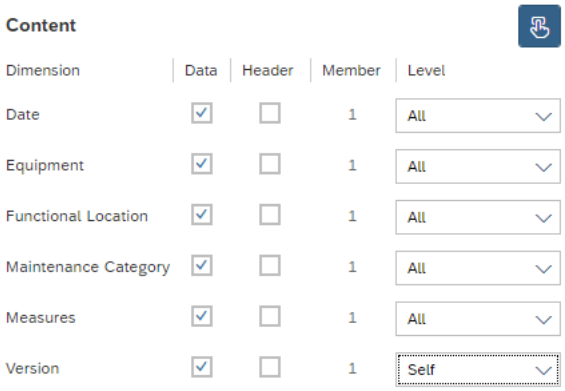
Explanation	Screenshot
Provide Name Maintenance_Cost_Budgeting_XX and click on Ok	
Expand the table to view the data.	

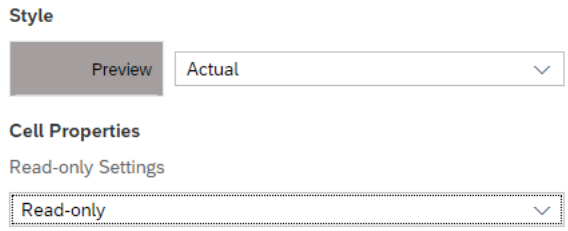
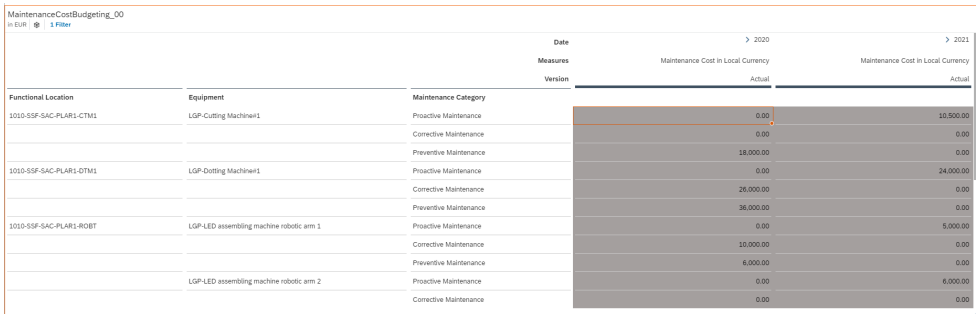
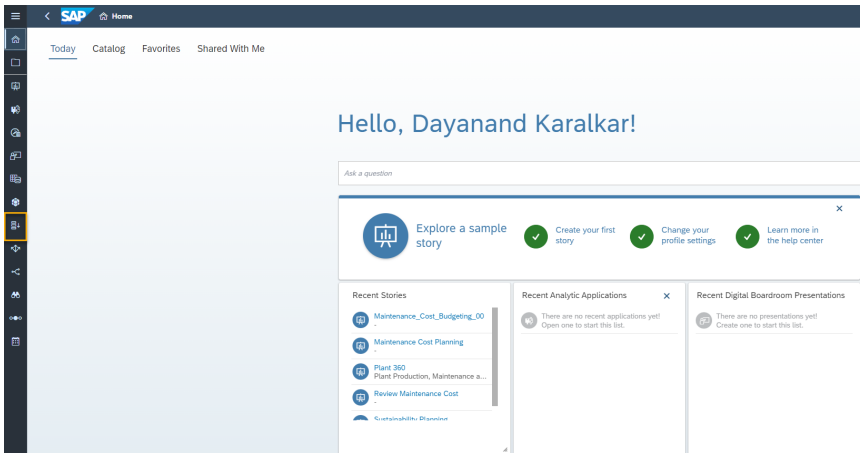
Story Filters

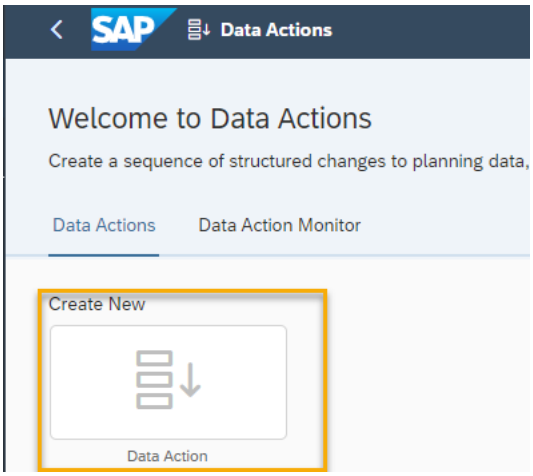
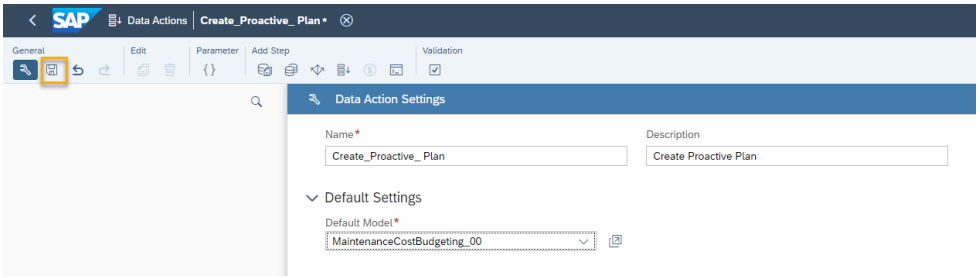
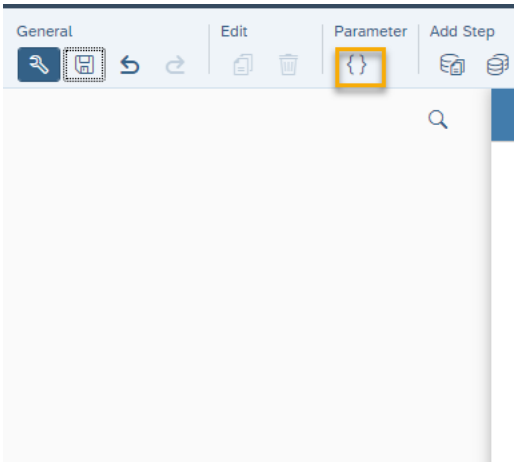
Maintenance planners will plan for their own company codes, Plants, and functional locations. Include story filter to select these dimensions Click in the tools section, The add story filter function is added to the story	

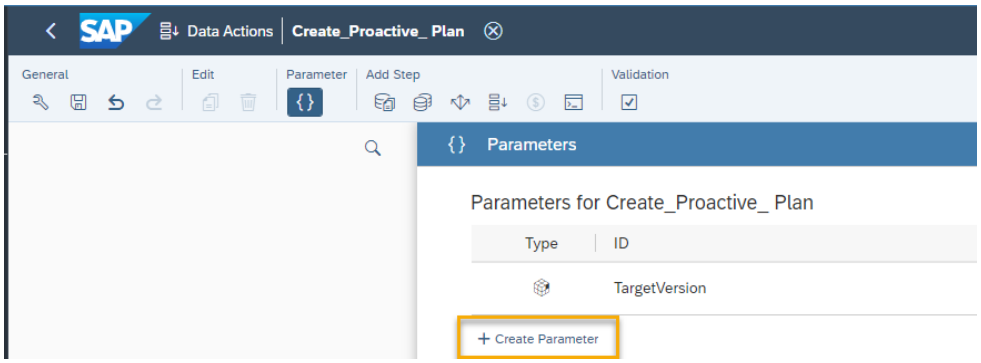
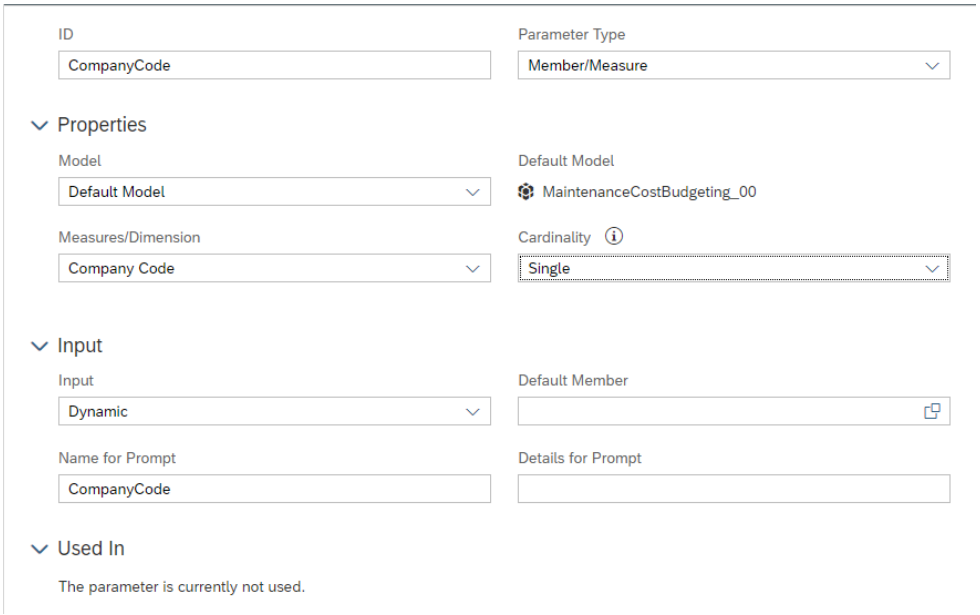
Explanation	Screenshot
Click on Add Story Filter and select Dimension	
Click on Company Code and select Company Code (Dimension)	
Select the master data members and click OK	
Repeat the above steps to include story filters for	

Explanation	Screenshot
Plant, Cost Center and Functional Location	
Styling Rules	
The actual data should not be editable in the table interface. Styling Rules will be defined to make the actual data read only and to distinguish between editable and non-editable cells	
Select any cell in the actual column and click on  in the Designer section	
Click on + in the Style option to add a new style	

Explanation	Screenshot
Name the Style as Actual. In the Cell select Cell Fill as Grey and click Apply	
Click on + in the Styling Rules section to add a new Styling Rule	
Name the Styling rule as Actual. Configure the content section as shown in the screenshot	

Explanation	Screenshot
Select Style -> Actual & Read Only setting as Read-Only. Click Ok	
Actuals are greyed out and are not editable	
Save the story and navigate back to the home screen	
Data Actions	
The maintenance planner would like to generate plan for 2022 based on the historical data. In This section will create Data actions to generate maintenance plan based on history	
Click on  in the SAP Analytics Cloud home page to open the Data Action page	

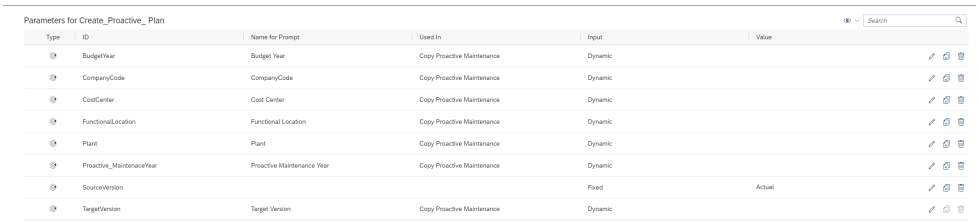
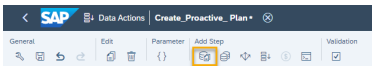
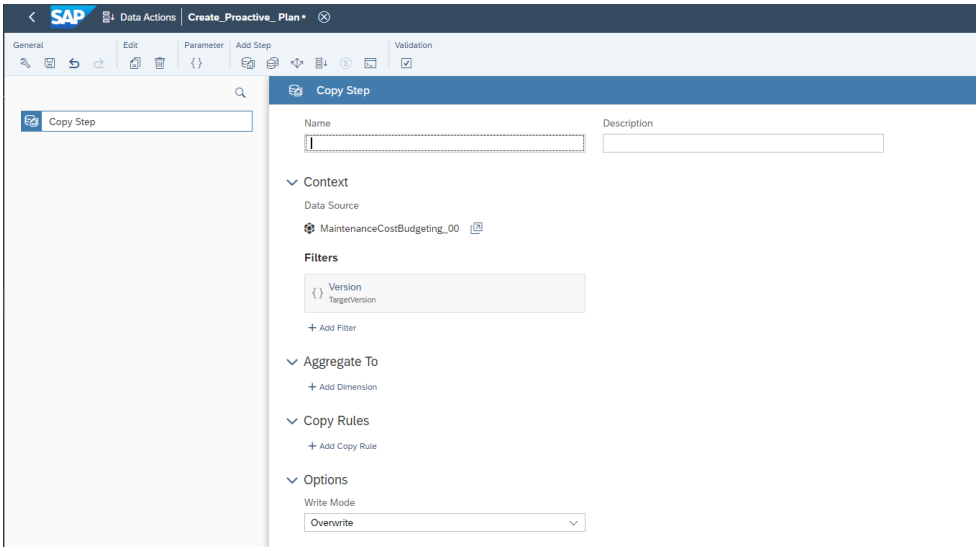
Explanation	Screenshot
In the Data Actions page click on Create New	
Provide the below information and click on Save Name: Create_Proactive_ Plan_XX Description: Create Proactive Plan Default Model: MaintenanceCostBudgeting_XX	
Click on Parameter { } to define the user selection for the data action	

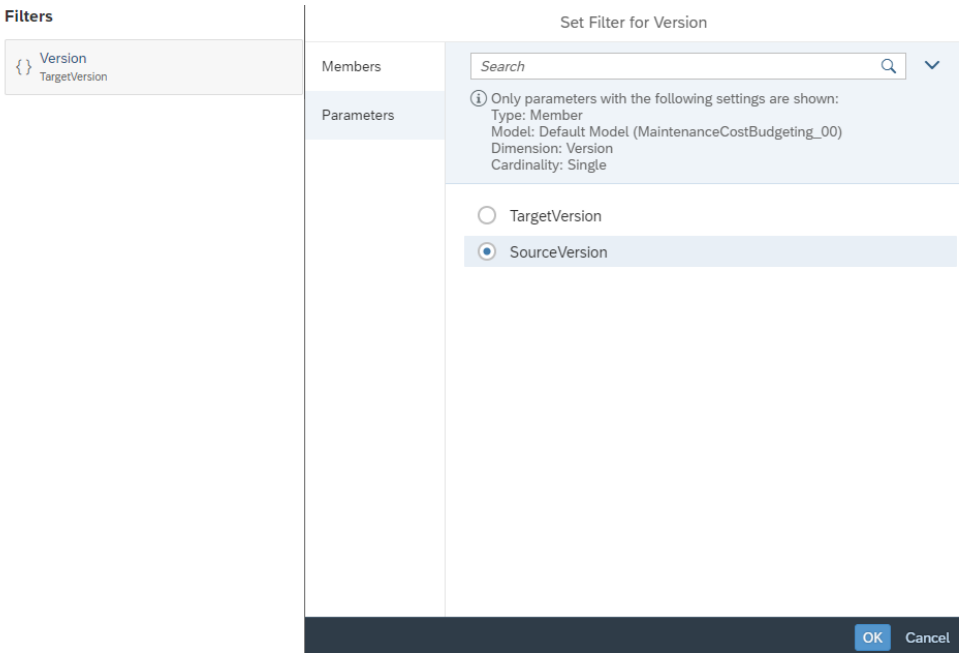
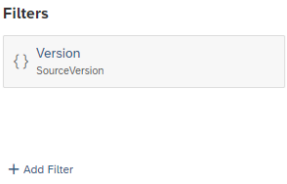
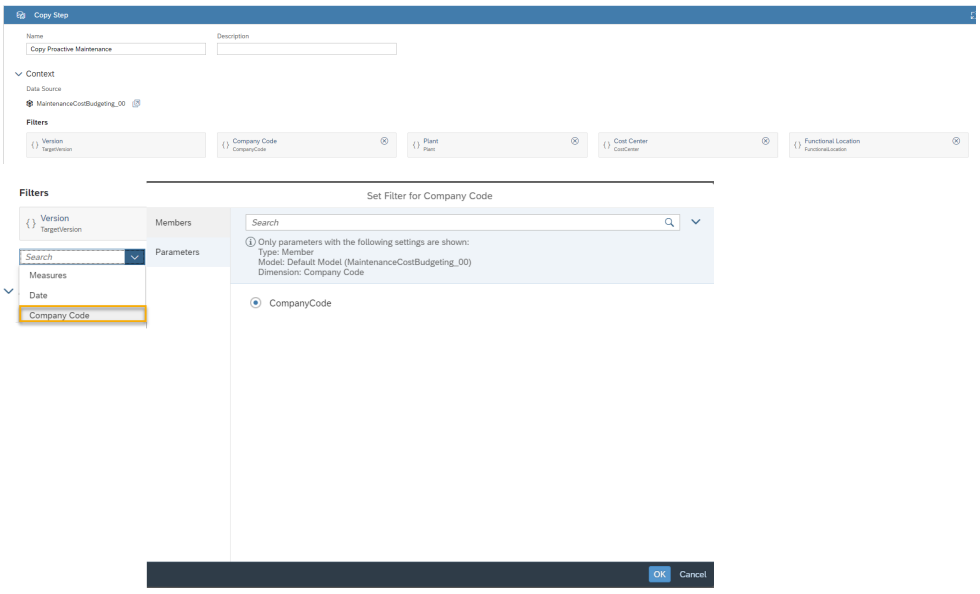
Explanation	Screenshot
In the parameter screen click on Create Parameter	
Provide Following values ID: **CompanyCode** Measure Dimension: **Company Code** Cardinality: **Single** Input: **Dynamic** Name for Prompt: **Company Code** Click Done	

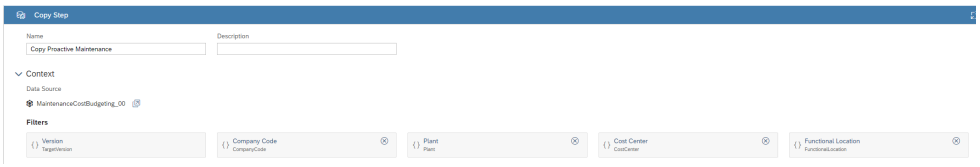
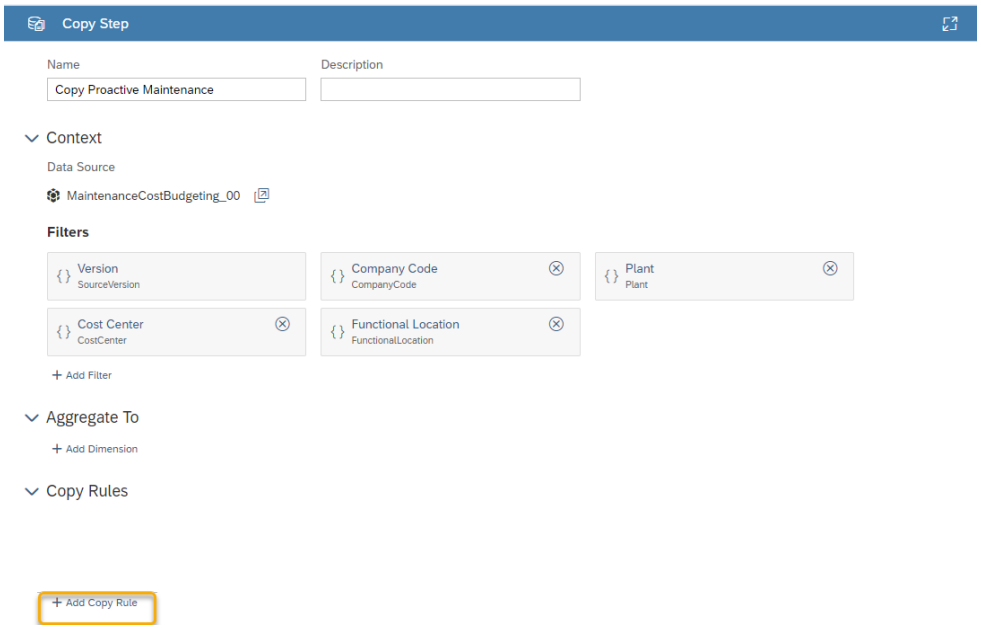
Repeat the same steps to Create the following parameters

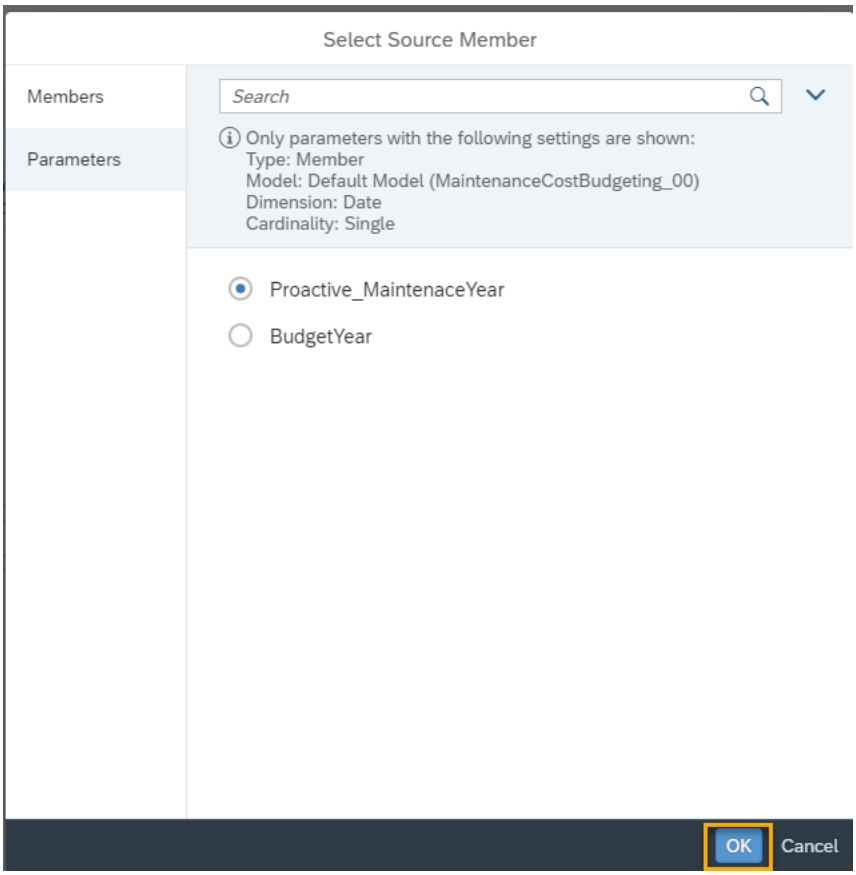
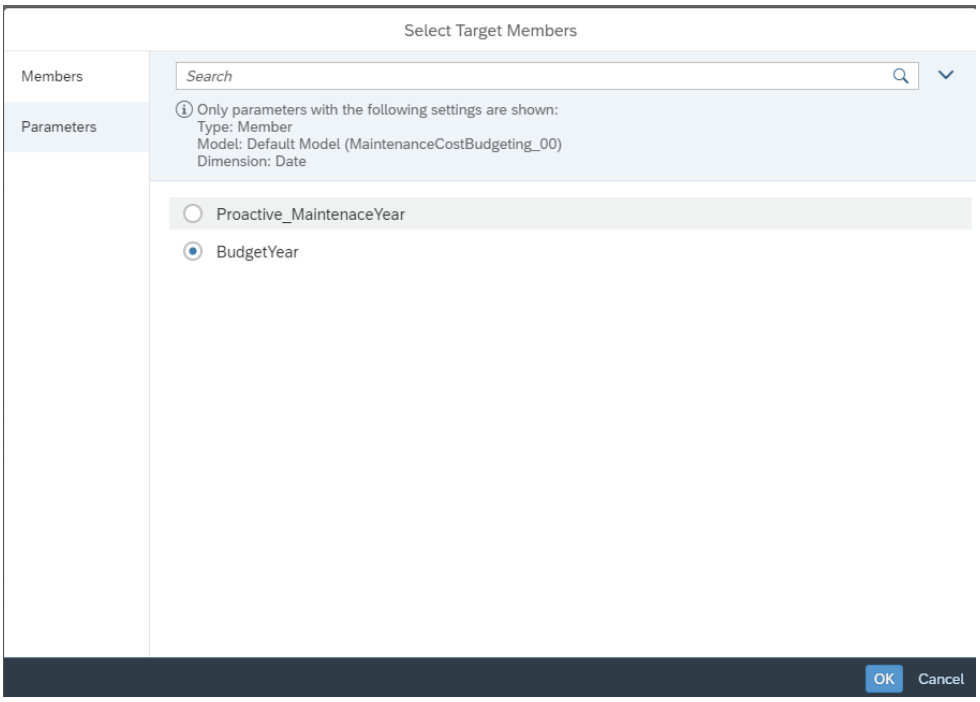
- Plant
- CostCenter
- Functional Location
- Proactive_MaintenaceYear
- BudgetYear
- Version

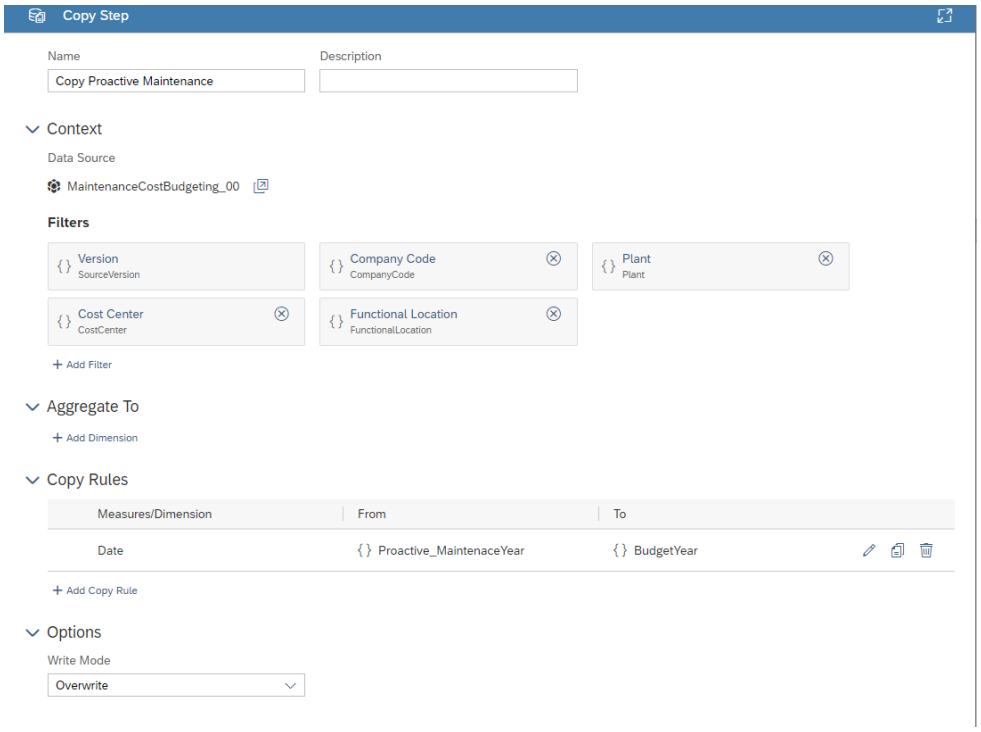
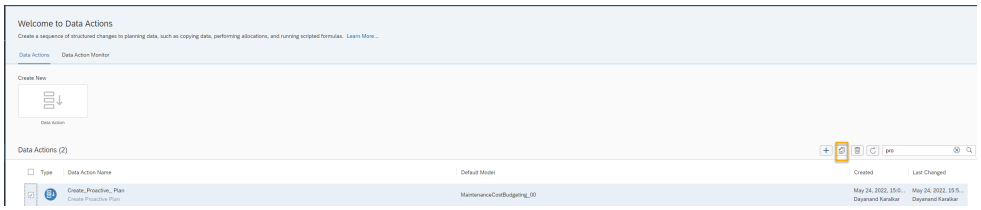
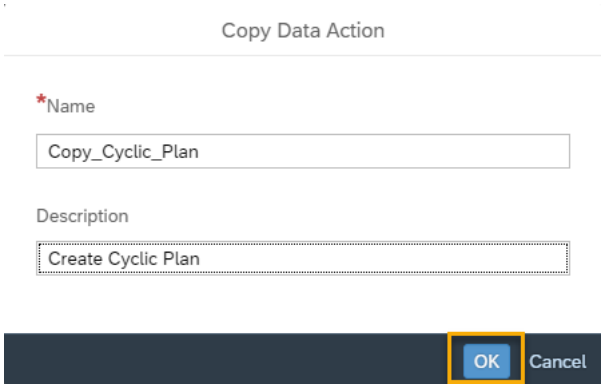
ID	Measure/ Dimension	Cardinality	Input	Hierarchy	Level	Name for Prompt
Plant	Plant	Single	Dynamic	Not applicable	Not applicable	Plant
SourceVersion	Version	Single	Fixed Member: Actual	Not applicable	Not applicable	Source Version
CostCenter	Cost Center	Single	Dynamic	Not applicable	Not applicable	Cost Center
Functional Location	Functional Location	Single	Dynamic	Not applicable	Not applicable	Functional Location
Proactive_MaintenaceYear	Date	Single	Dynamic	Year, Quarter ,Month	Any	Proactive Maintenance Year

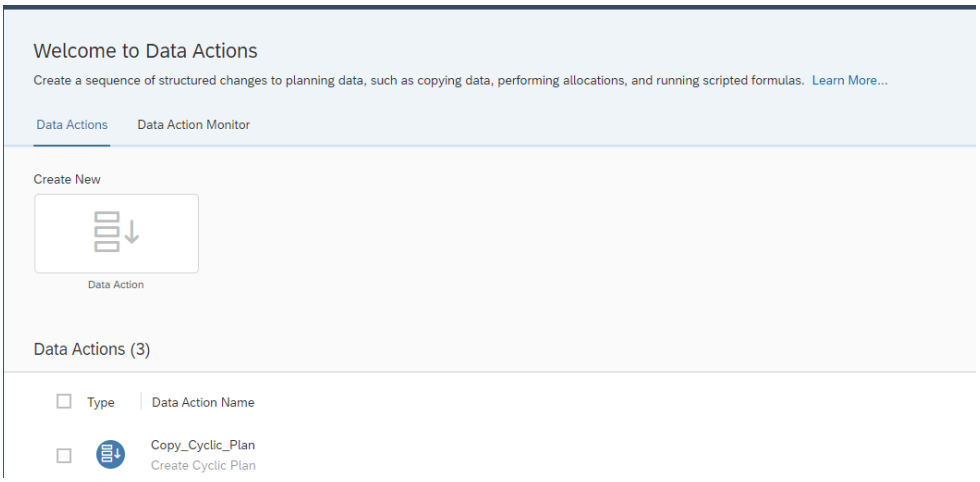
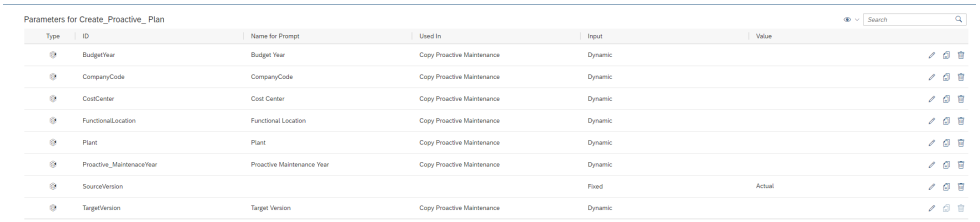
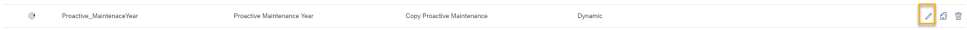
Explanation	Screenshot
	<table><tr><td>BudgetYear</td><td>Date</td><td>Single</td><td>Dynamic</td><td>Year, Quarter ,Month</td><td>Any</td><td>Budget Year</td></tr></table>
After defining the parameters, the list of parameters will look like this	
Click on  to add copy step	
The Copy step configuration screen opens	
Provide name: Copy Proactive Maintenance	

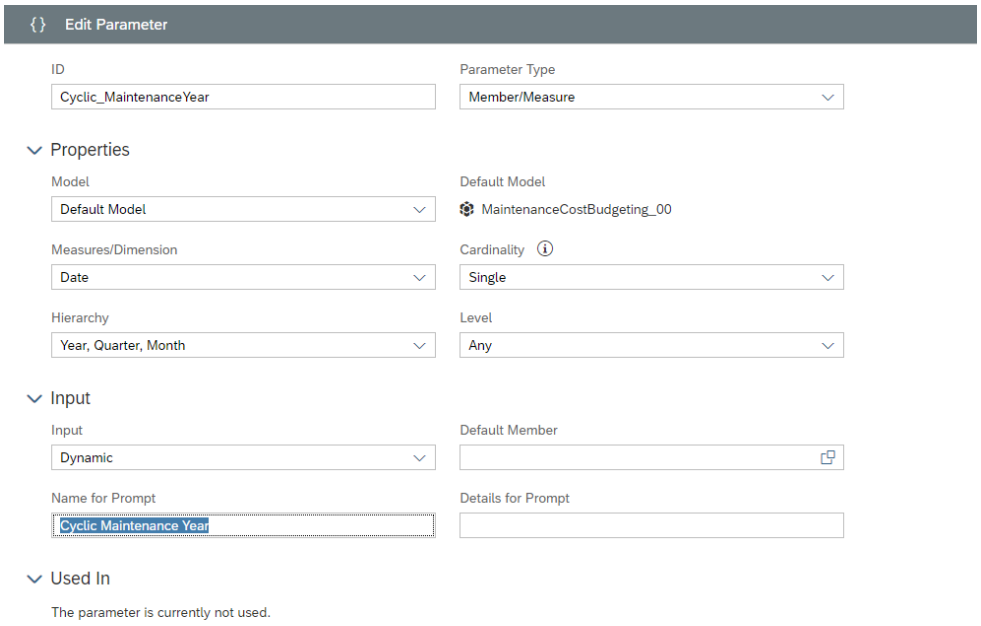
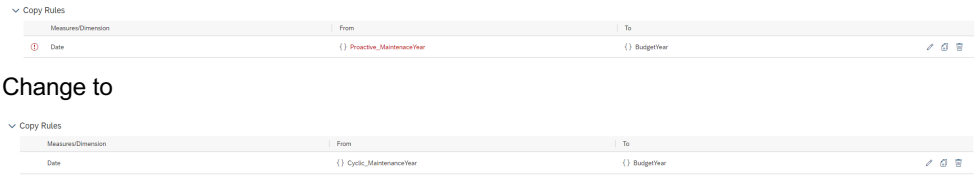
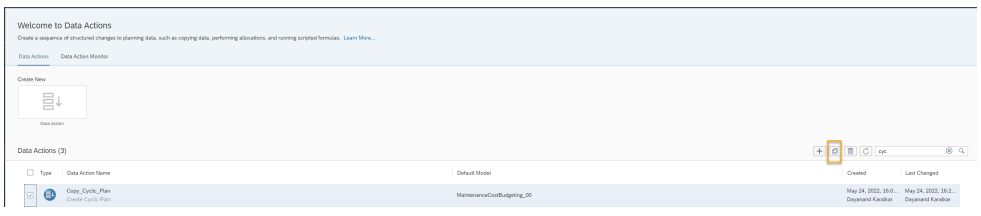
Explanation	Screenshot
In the filter click on the Version select parameter Source Version	
Click + Add Filter	
Select Company Code and in the filter, screen click on Parameters and Select the Company code parameter created in the above step. Click ok. Repeat the same task to add filters for Plant, Cost Center & Functional Location	

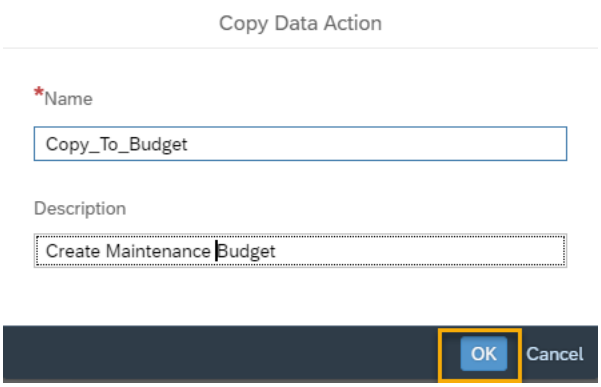
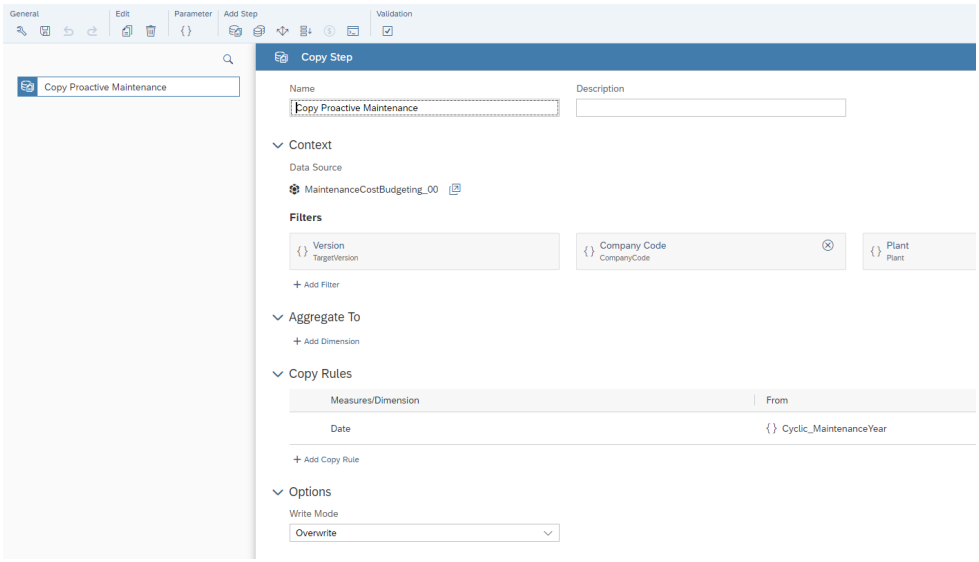
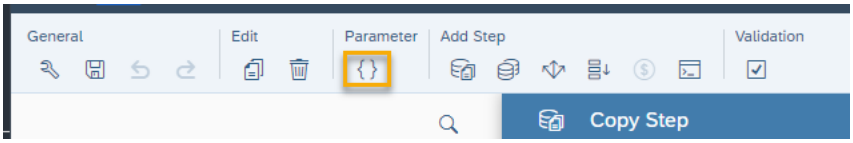
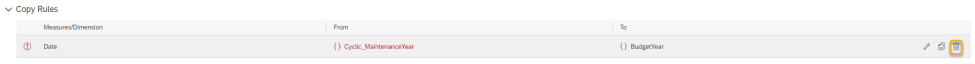
Explanation	Screenshot
	
Click on + Add Copy Rule	
In the copy rule select dimension Date Click the From and click on Parameter. Select Poractive_MaintenanceYear parameter and click ok Click the To click on Parameter. Select BudgetYear and Click Ok	

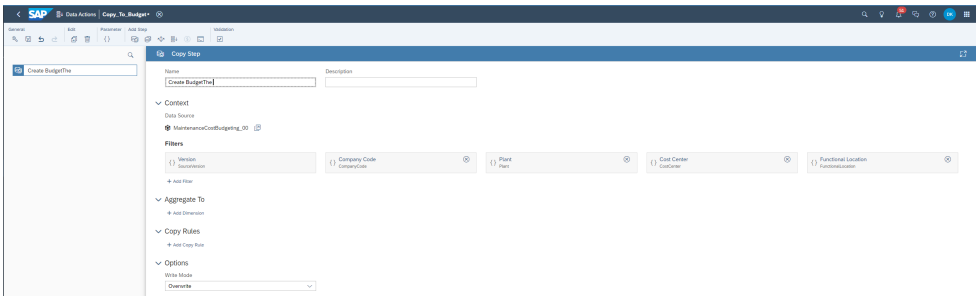
Explanation	Screenshot
	 

Explanation	Screenshot
Keep the Write mode overwrite and save the data action	
Navigate Back to the Data Action page	
Select the Data action created and click on 	
In the Copy Data Action Dialogue Provide Name: Copy_Cyclic_Plan_XX Description: Create Cyclic Plan and click OK	

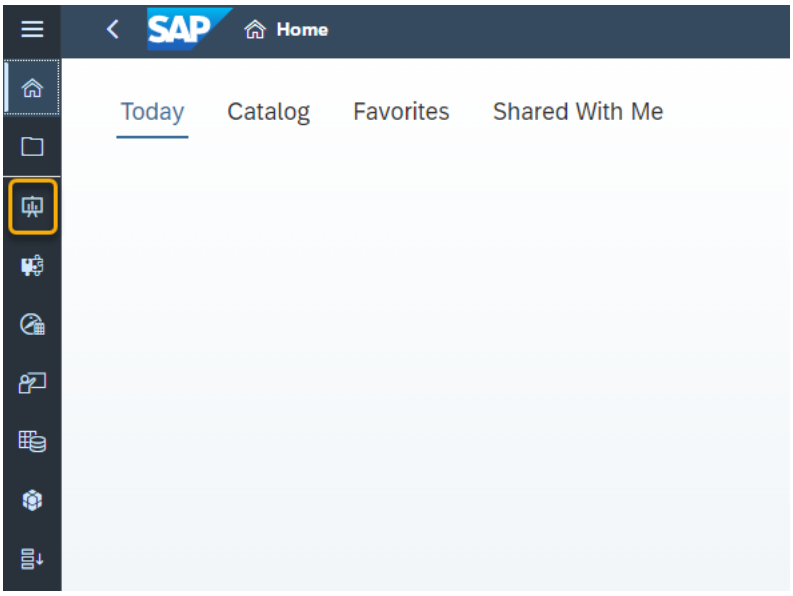
Explanation	Screenshot
The Data action will be created. Click on the data action to edit it.	
Click on the Parameters. The Parameter List is displayed	
Click  next to the Proactive Maintenance Year Parameter.	

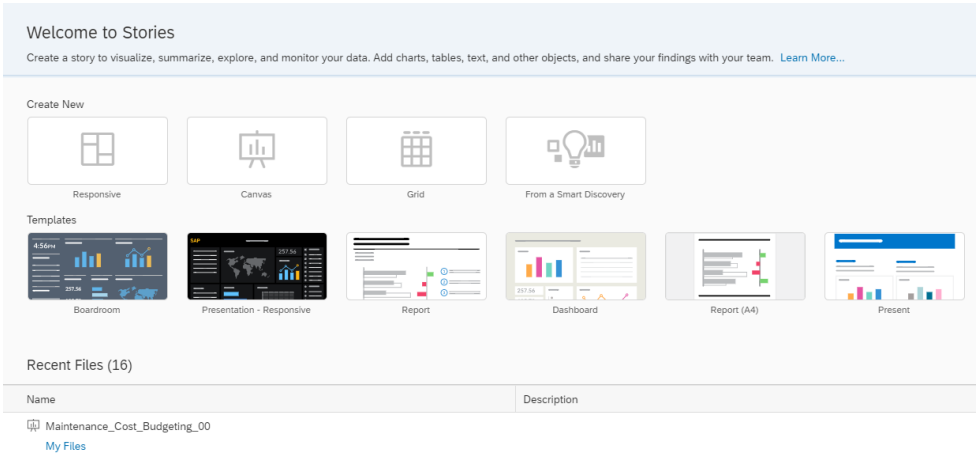
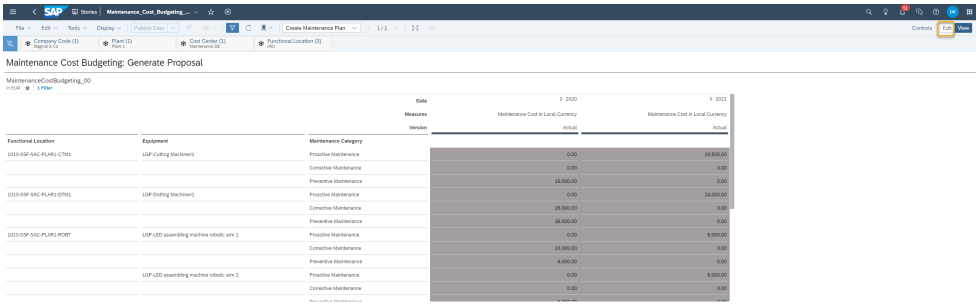
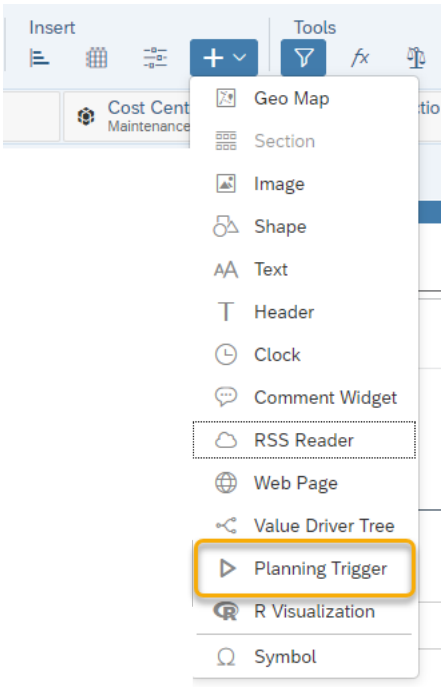
Explanation	Screenshot
Change the ID to Cyclic_MaintenanceYear and Name for Prompt to Cyclic Maintenance Year and click Done	
Click on the Copy step and Navigate to the Copy Rules. Change the From Values to include the new renamed parameter Change the name of the step to Copy Cyclic Maintenance. click on Save	 Change to
Navigate back to the Data Action Page	
Select the Data action created above and click on  (Copy)	

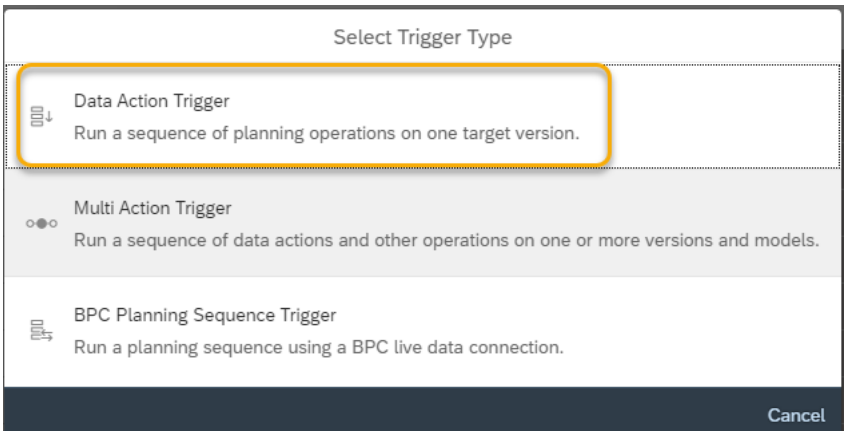
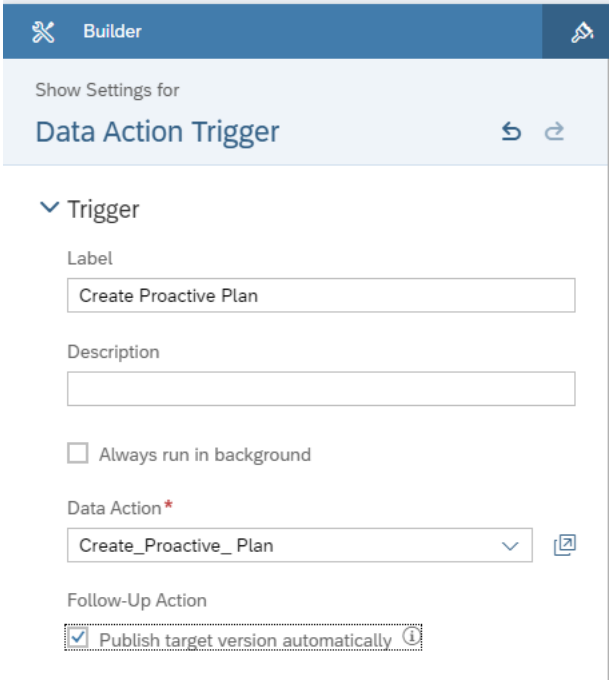
Explanation	Screenshot
In the Copy Data Action Dialogue Provide Name: Copy_to_Budget_XX Description: Create Maintenance Budget and click OK	
Click on the data action to Edit	
Click on {} (Show Parameter List)	
Delete the Cyclic Maintenance Year Parameter by clicking on 🗑 next to the parameter	
Click on the step to edit it. Make following changes • Name: Create Budget	

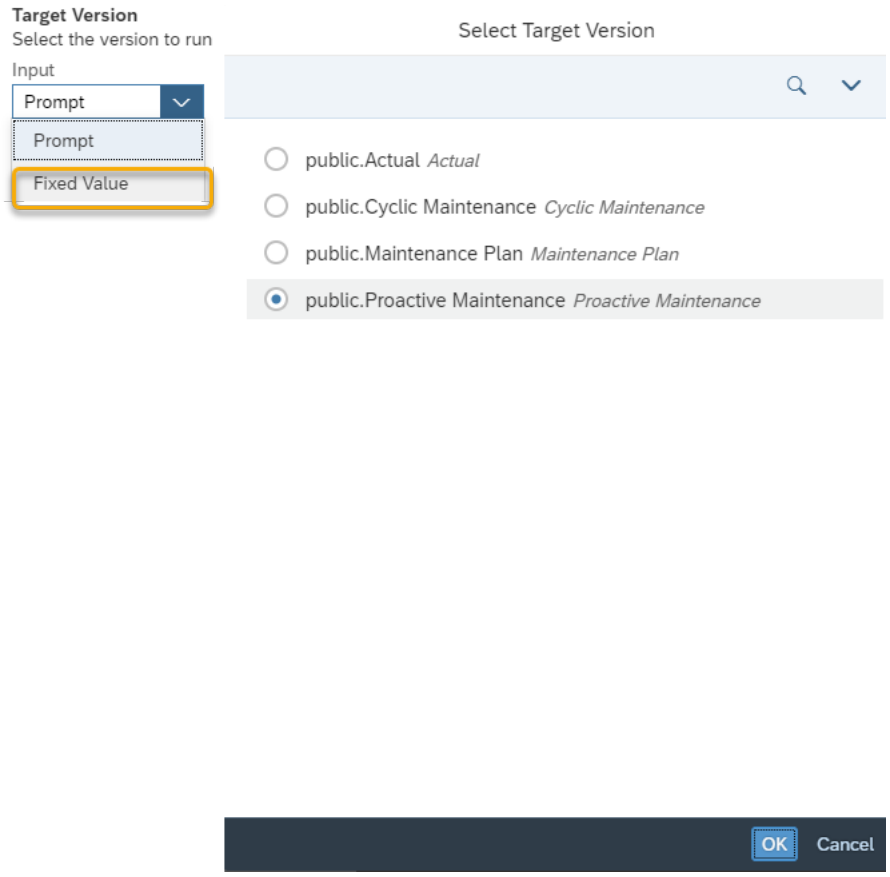
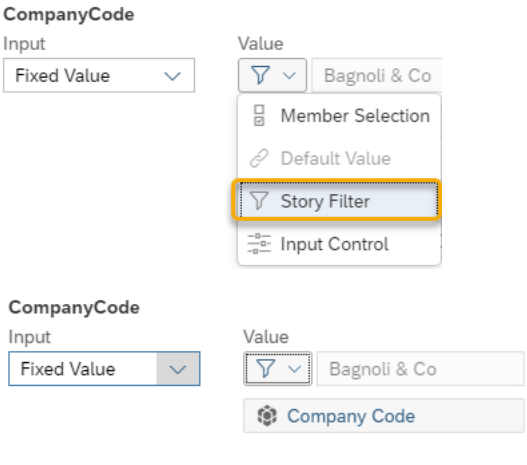
Explanation	Screenshot
• Delete the Copy Rule by clicking the  next to the rule	
Save the Data Action	

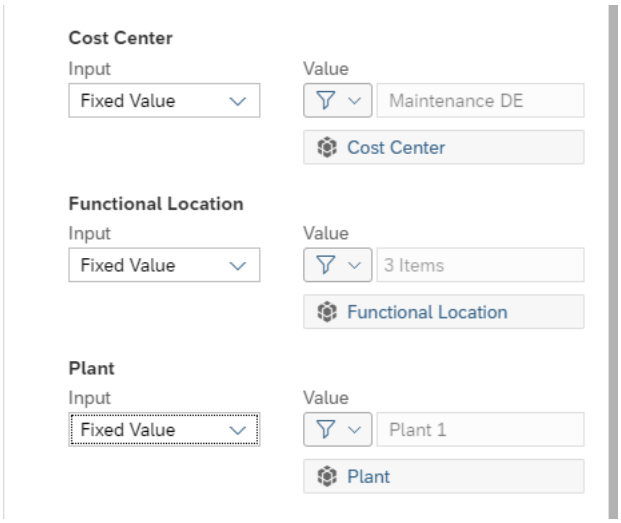
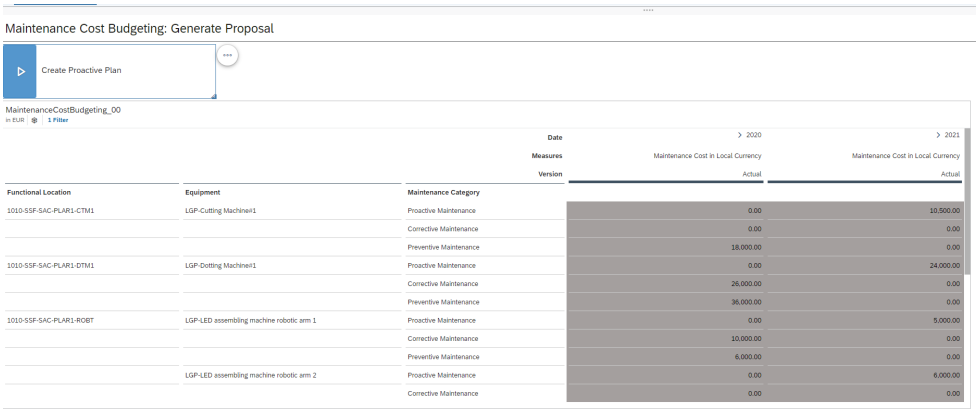
Including Data Actions in Story

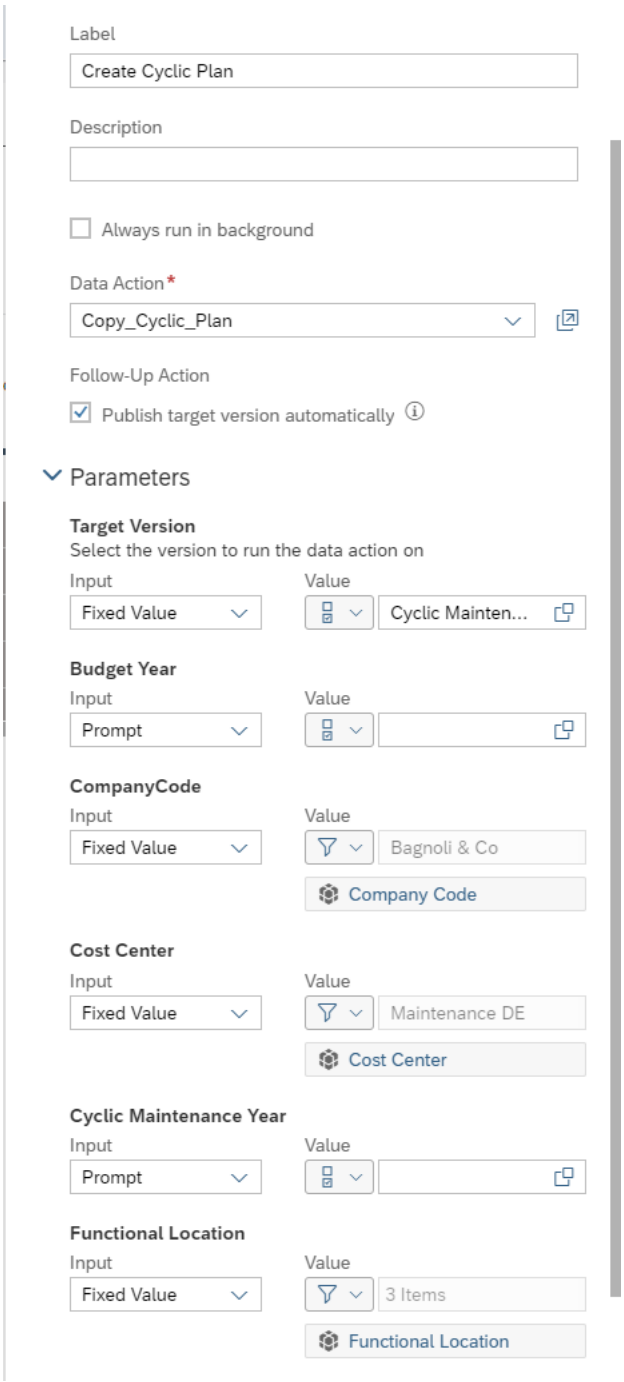
Navigate to the home page and click on 	

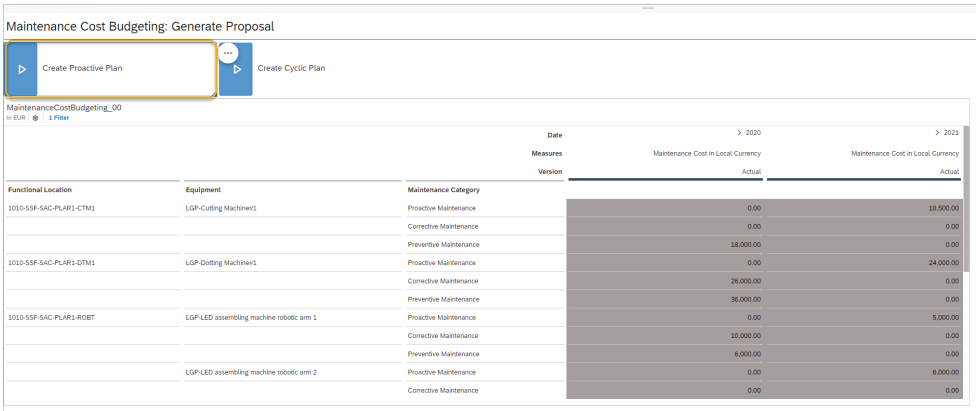
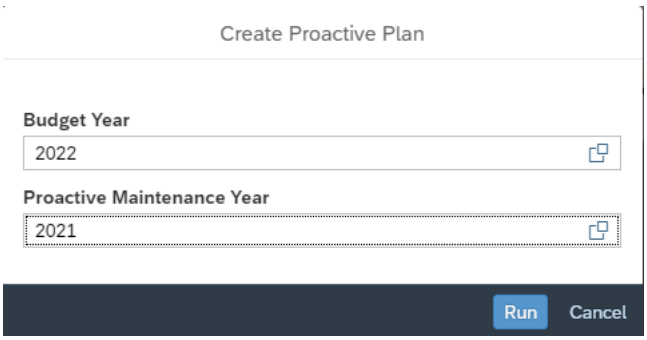
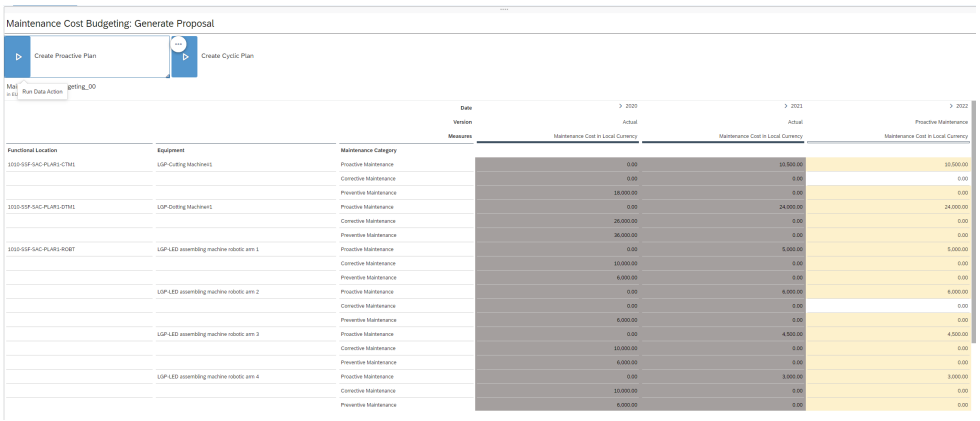
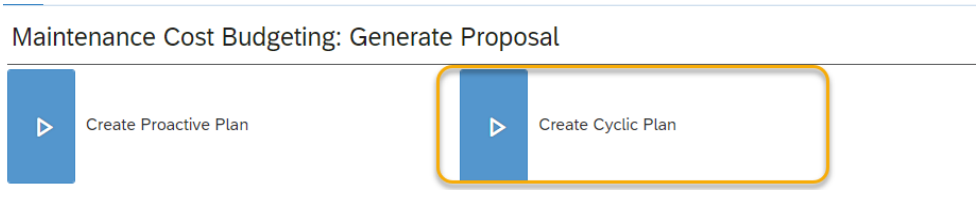
Explanation	Screenshot
Click on the Maintenance_Cost_Budgeting_XX story	
The story open in view mode. Click on Edit	
In the Insert menu click on + and select Planning Trigger	

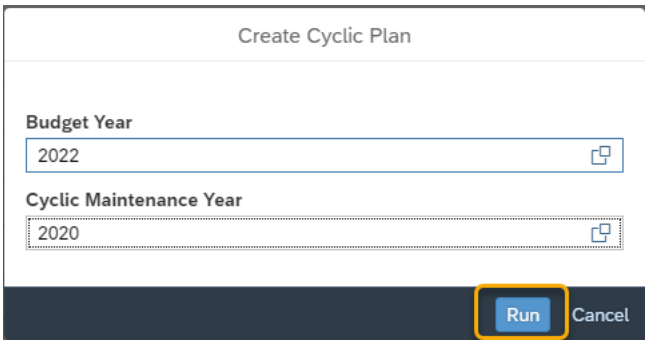
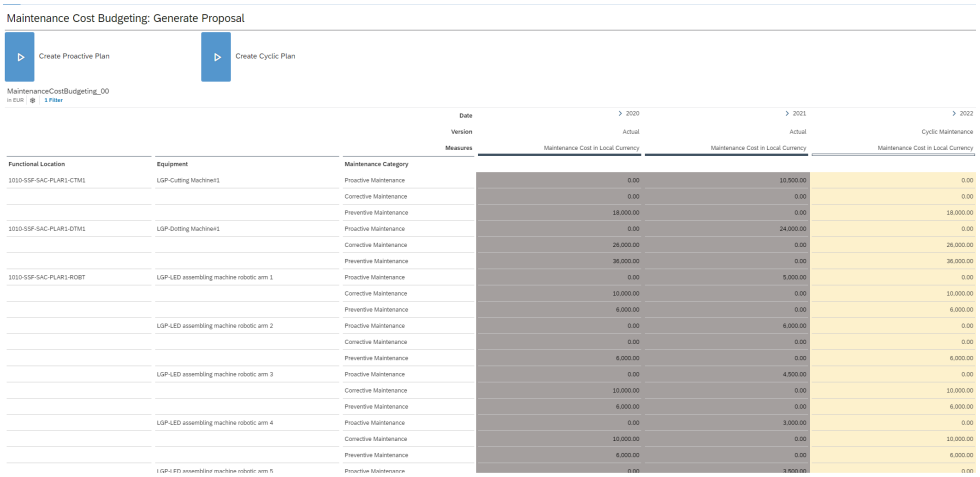
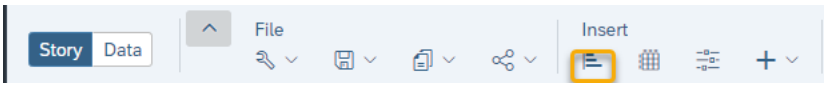
Explanation	Screenshot
In the trigger type selection pop up select Data Action Trigger	
The Data Action trigger settings opens. In the Data action Select the data action Create_Proactive_Plan_XX In Label type “Create Proactive Plan“ Check “Publish target Version automatically”	

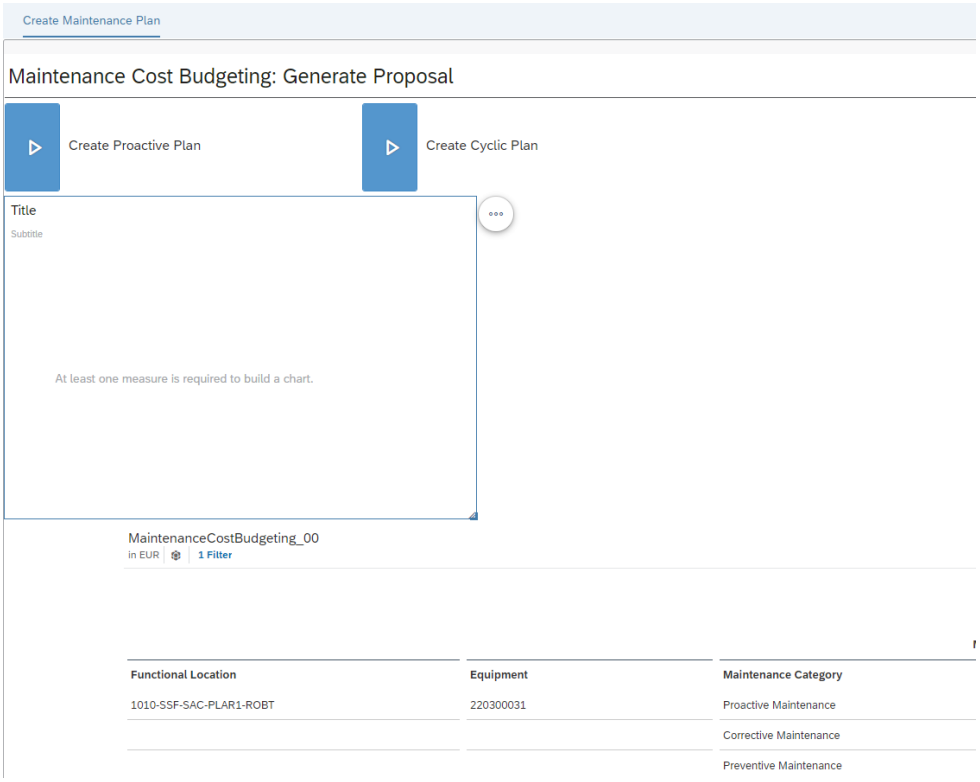
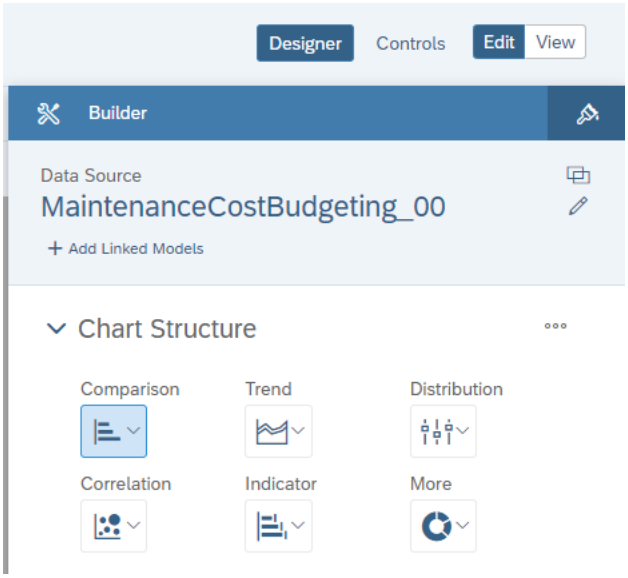
Explanation	Screenshot
All the parameters defined in the Data action will be available. For the Target Version Parameter Click on the Input and select fixed Value Click the value box and select version public.Maintenance Plan and click Ok	
For Company Code parameter in the Input Select fixed Value. click on Value-> Story Filter. The system will pick up the value from the story filter	

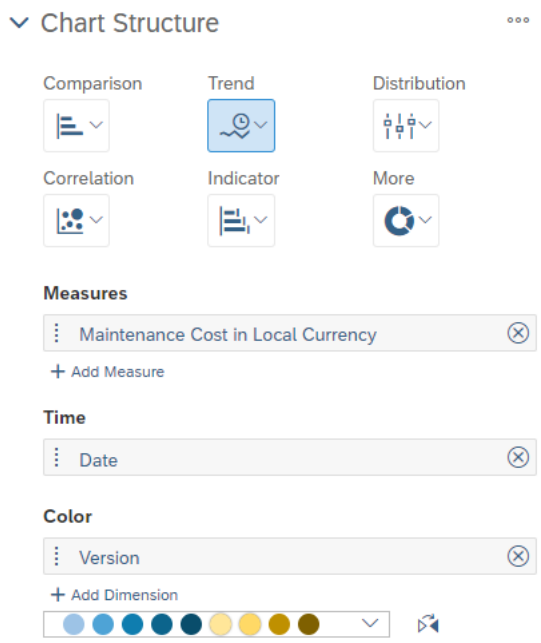
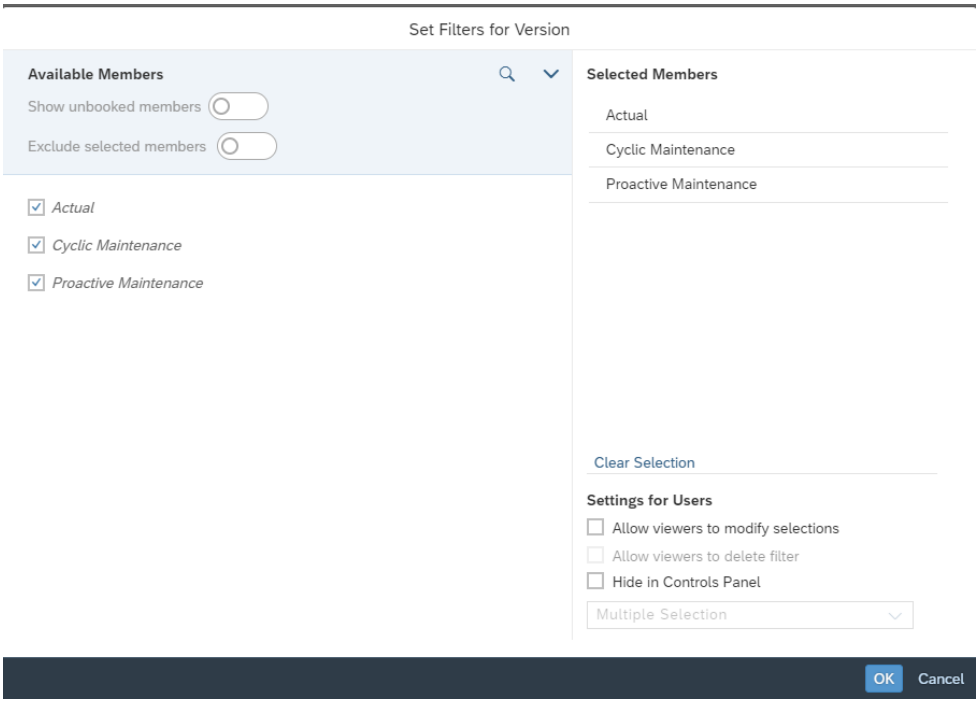
Explanation	Screenshot
Repeat the same process for the following Parameters • Cost Center • Plant • Functional Location Save the story	
Drag the Data action on top of the table	

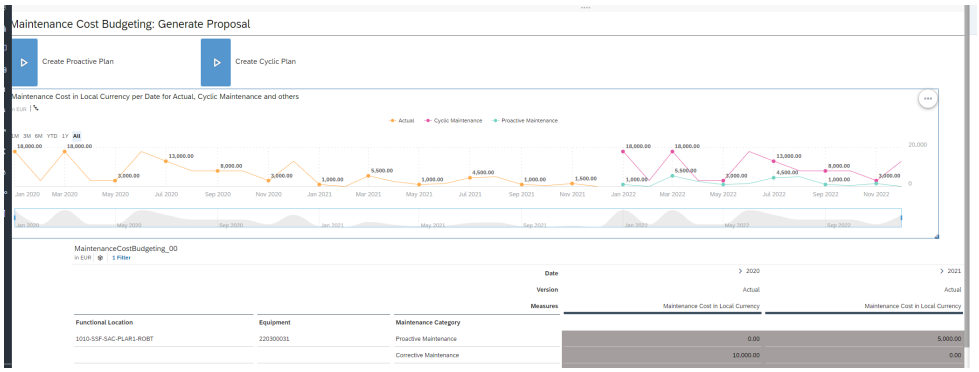
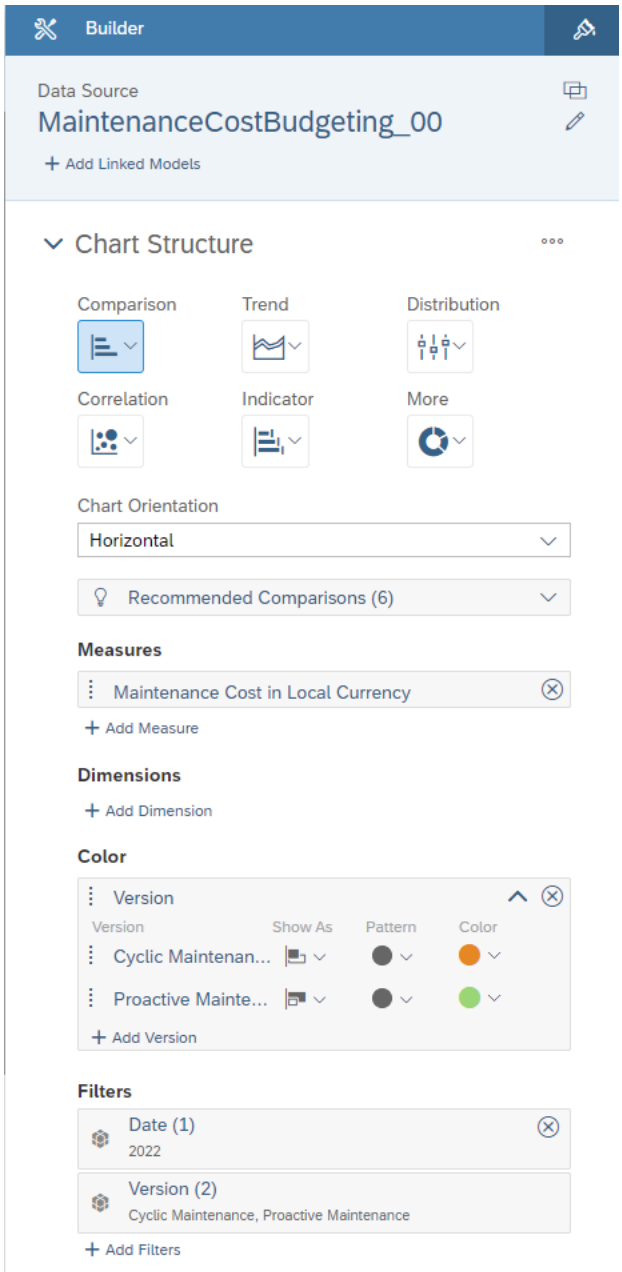
Explanation	Screenshot
Repeat the same steps to include data action Copy_Cyclic_Plan_XX in the story	
Save the story	

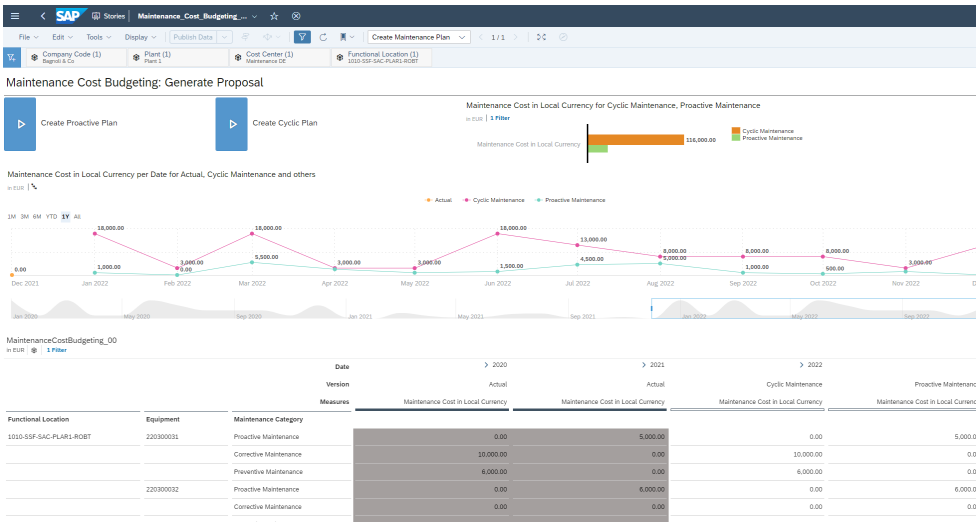
Explanation	Screenshot
Click on Create Proactive Plan Data action	
In the pop up enter the values as shown and click on Run	
The Data action runs successfully and the Proactive maintenance plan for 2022 is generated	
Click on the Create Cyclic Plan Data action	

Explanation	Screenshot
In the pop up enter the values as shown and click on Run	
The Data action runs successfully and populates the Cyclic Maintenance Plan for 2022	
Include a time series chart to show the trend of the maintenance cost. To include chart, click on Insert->Chart	

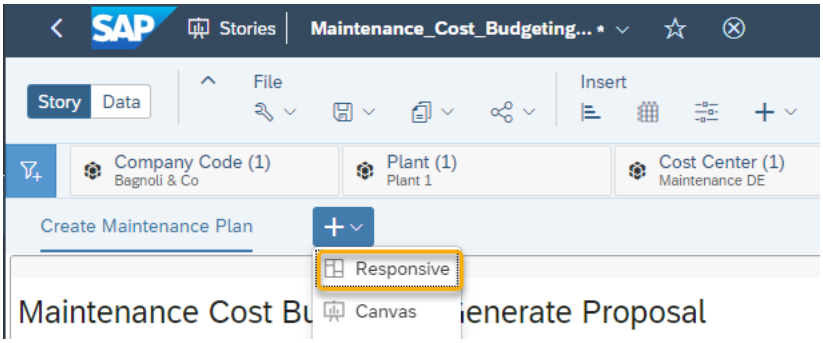
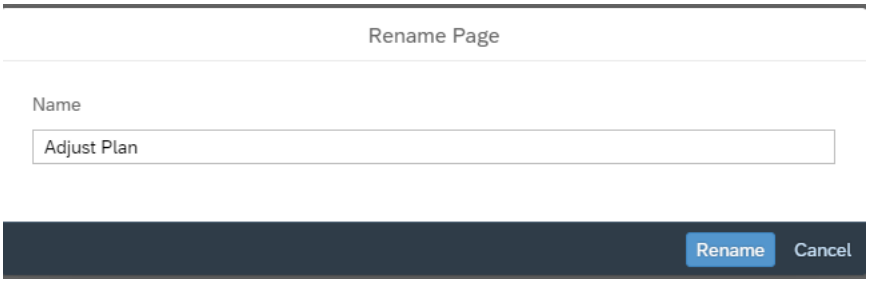
Explanation	Screenshot
The chart is inserted below the table. Drag and drop the chart on top of the table	
Select the chart and open Designer-> Builder	

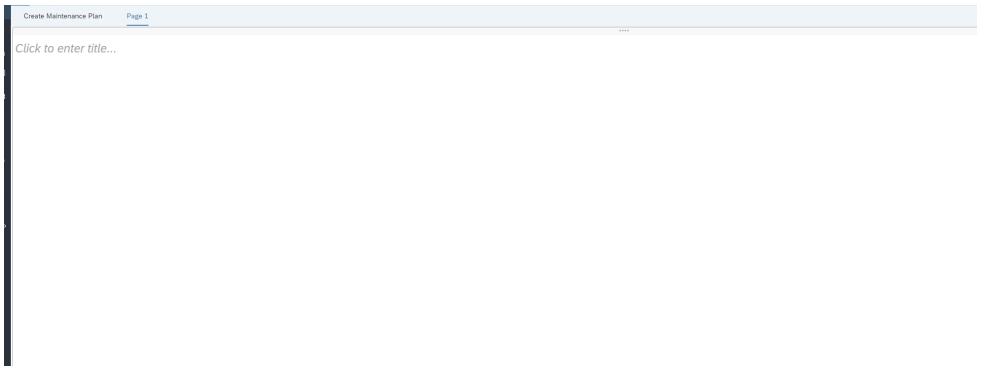
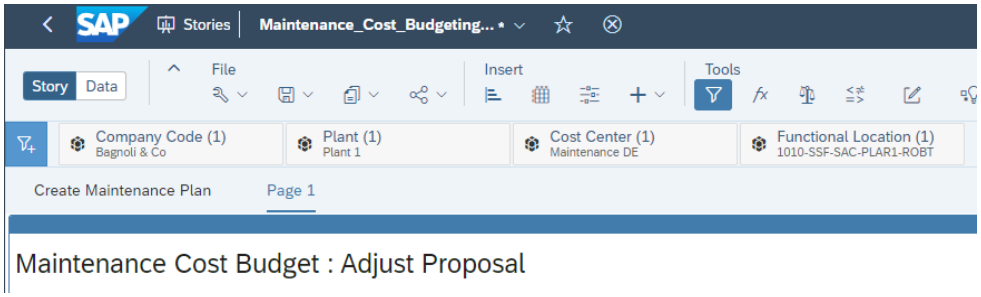
Explanation	Screenshot
Make following selection Measure: Maintenance Cost in Local Currency Dimension: Date In Color Add Dimension Version. Select Chart type: Trend->Time Series	
In the Filters click on version and select Actual Proactive Maintenance Cyclic Maintenance and click OK	

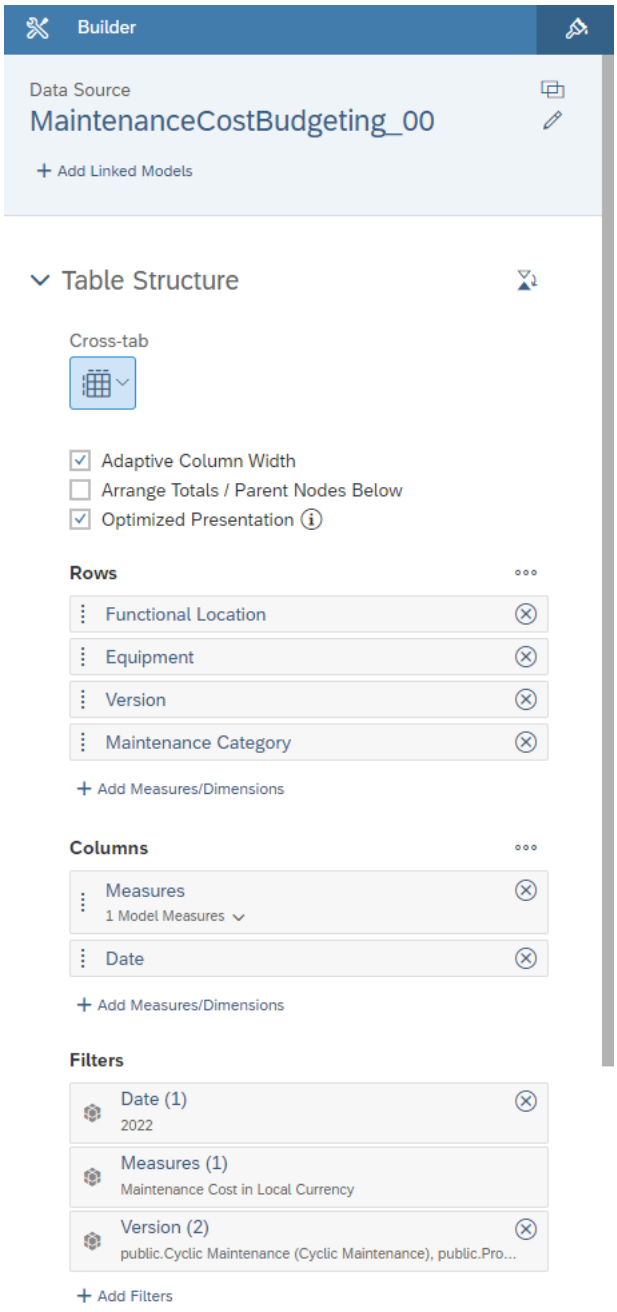
Explanation	Screenshot
Adjust the chart length appropriately and save the story	
We will also include a bar chart to show a quick comparison of proactive maintenance cost and cyclic maintenance cost for 2022. Insert a chart and position it next to the data actions. Configure the chart as shown	

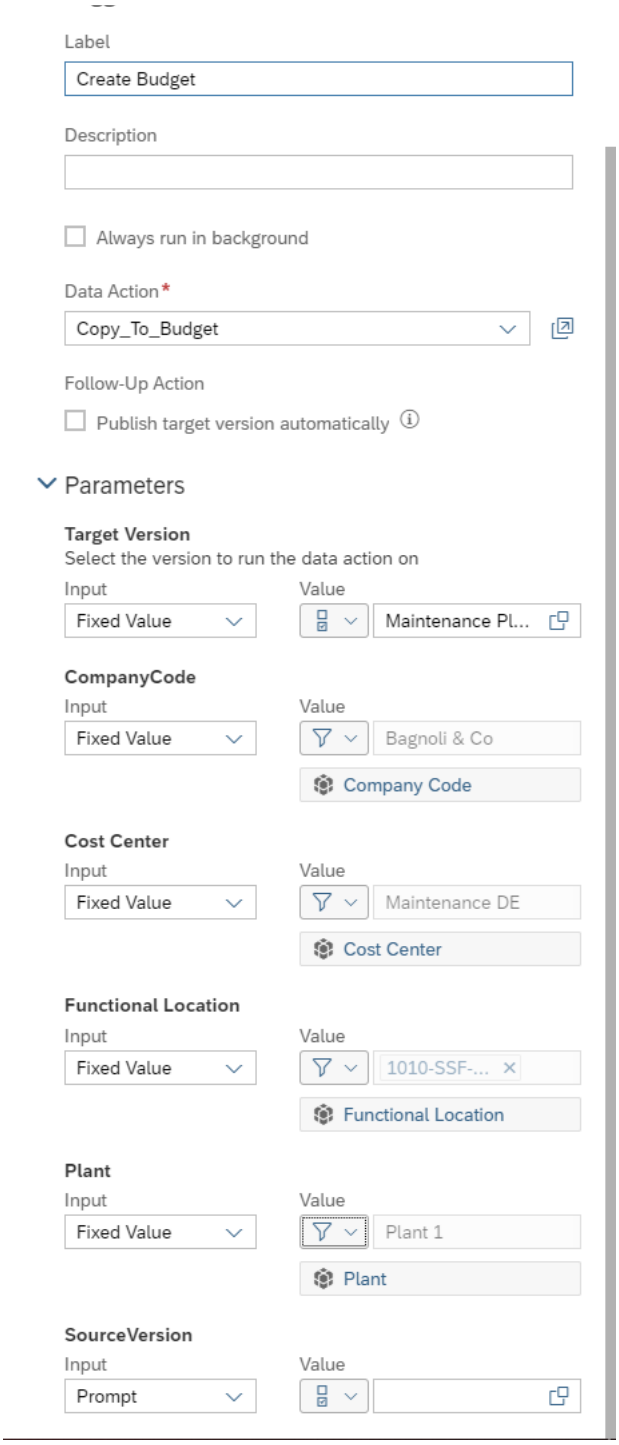
Explanation	Screenshot
Save the Story	

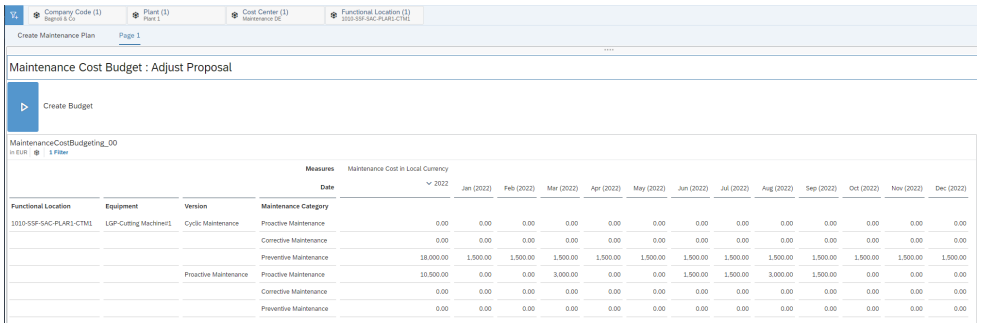
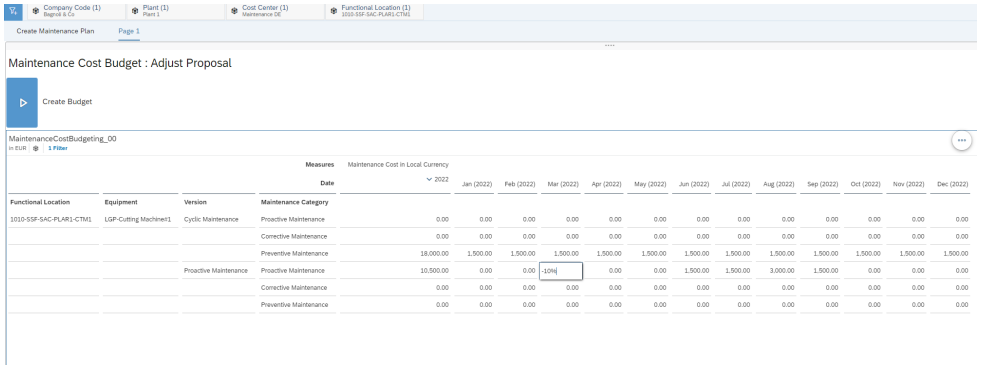
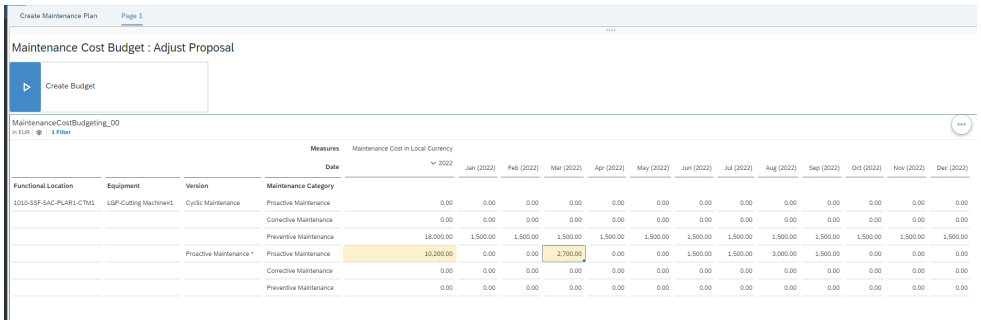
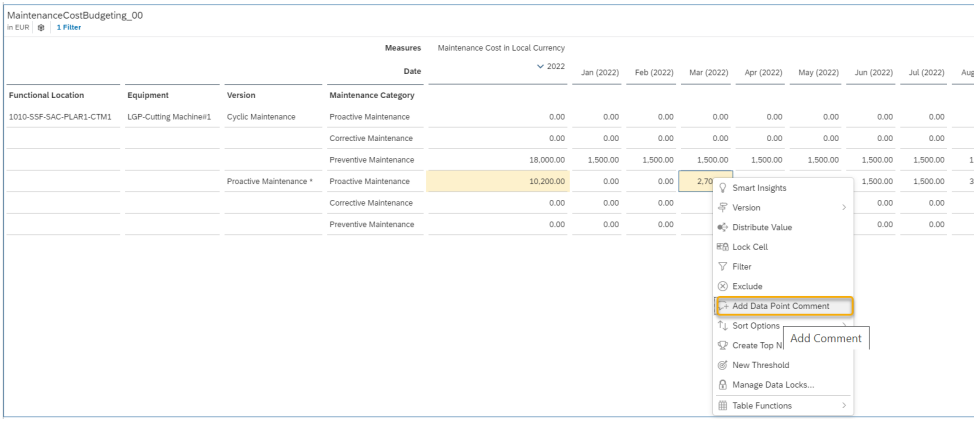
Adjust the Generated Plan

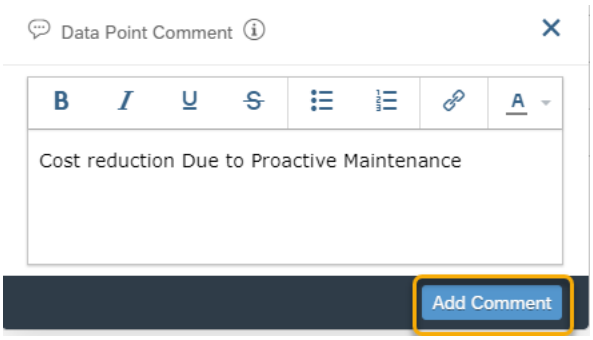
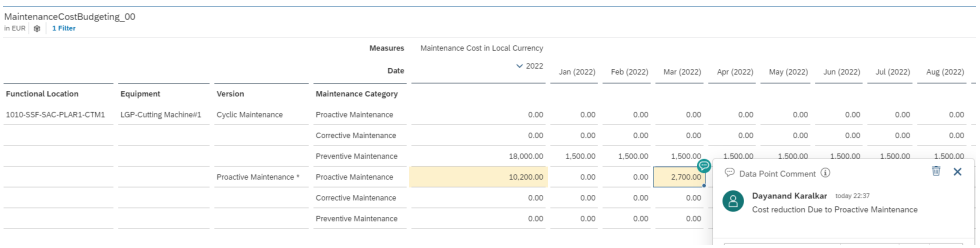
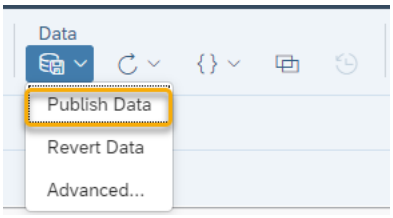
Click on  -> Responsive to add a new page to the story	
Rename the Page	

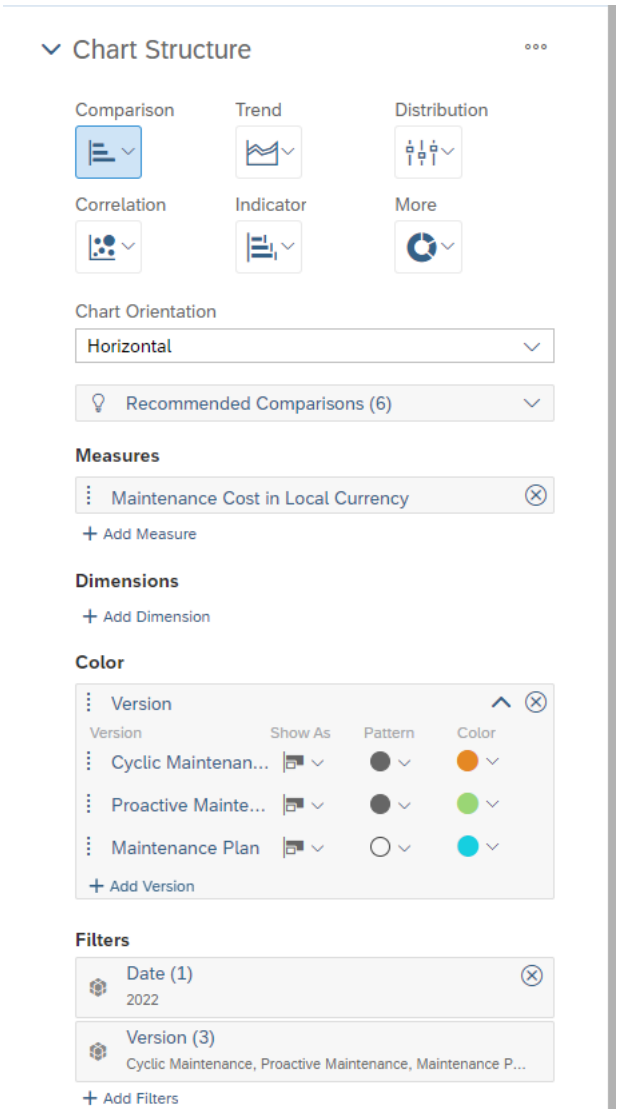
Explanation	Screenshot
Keep only lane in the page by deleting the right lane	
Click in the Title and enter “Maintenance Cost Budget: Adjust Proposal” as the page title	

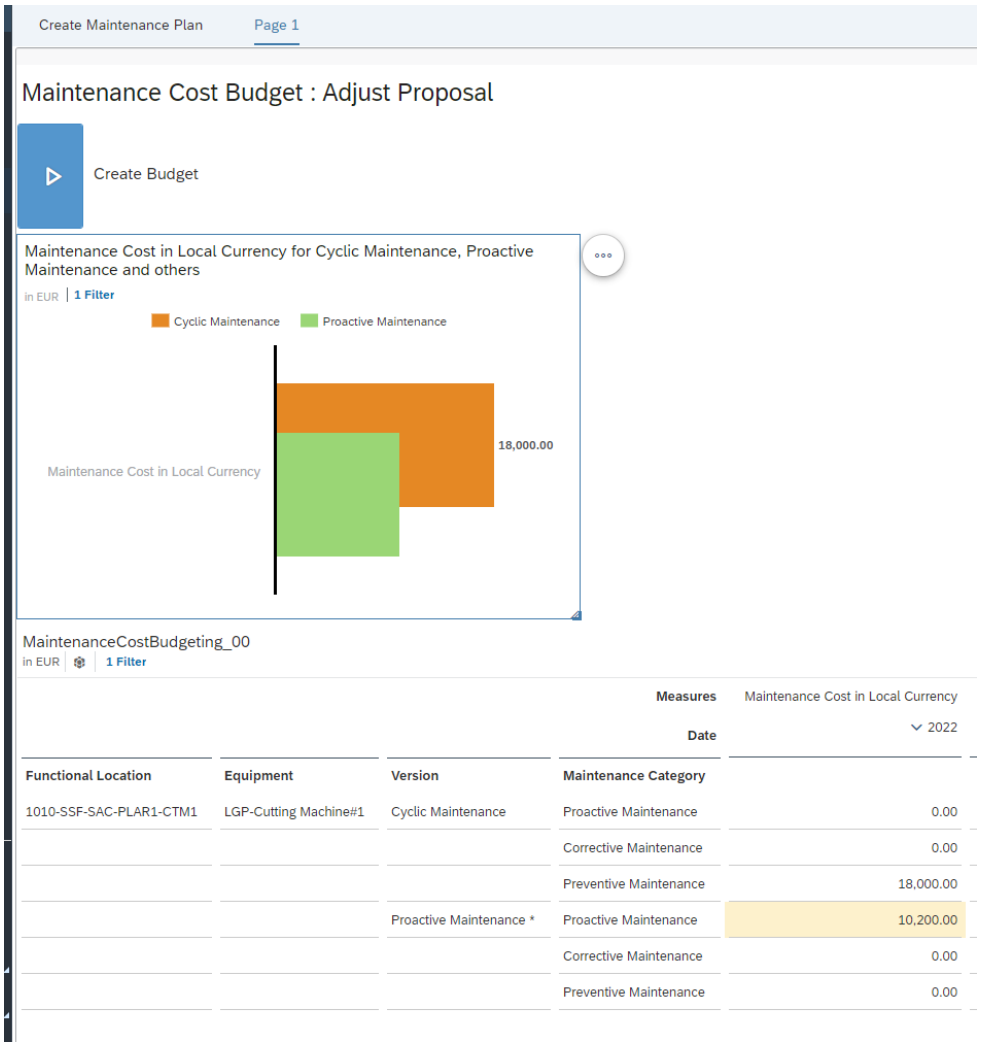
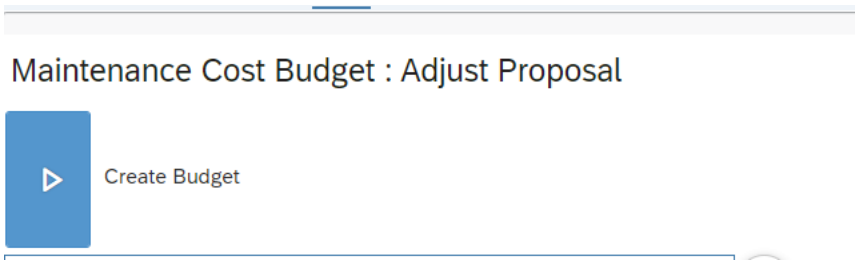
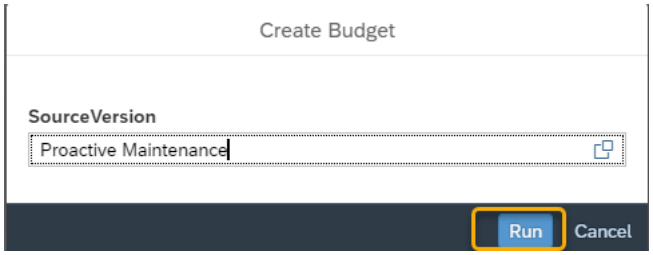
Explanation	Screenshot
Insert a table and configure as shown	

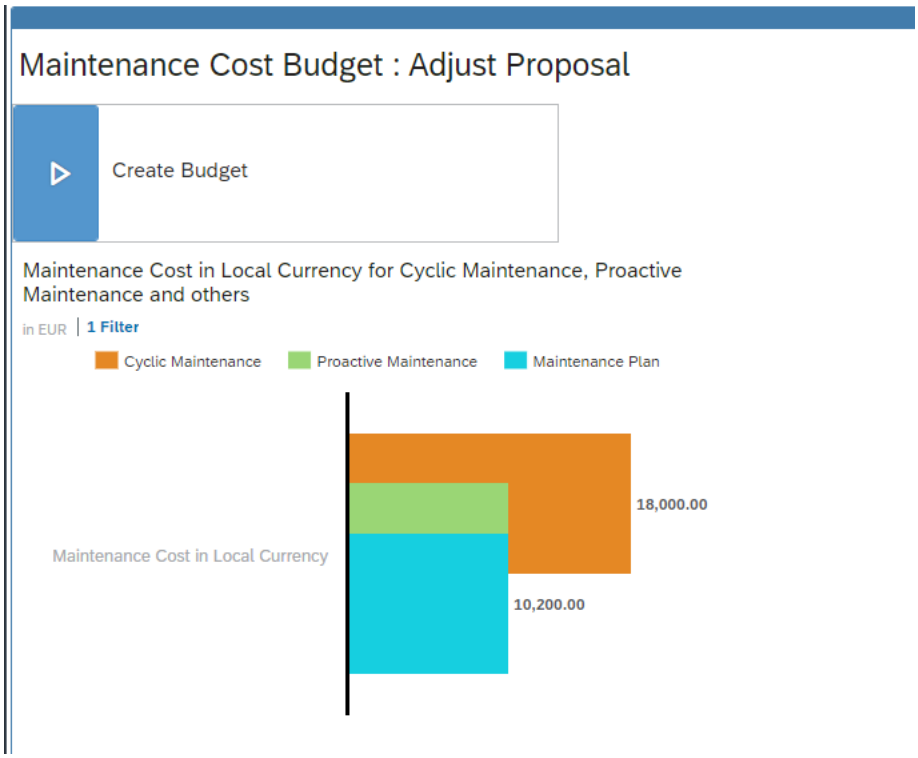
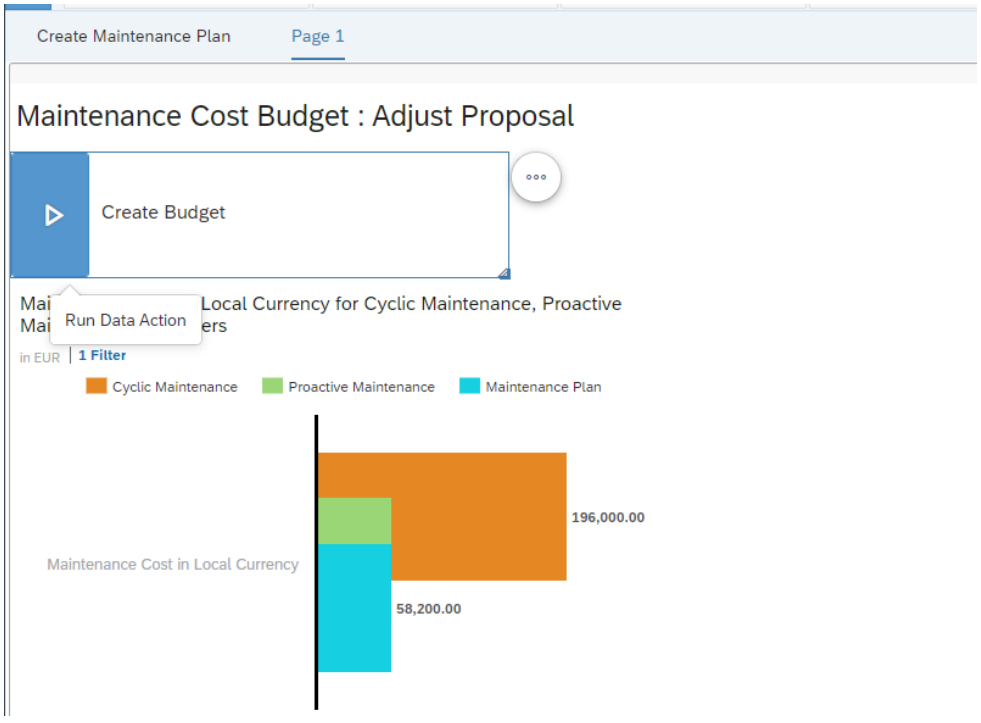
Explanation	Screenshot
Insert Data Action Trigger and configure as shown. Use the Data Action Copy_to_Budget_XX	
Save the Story	

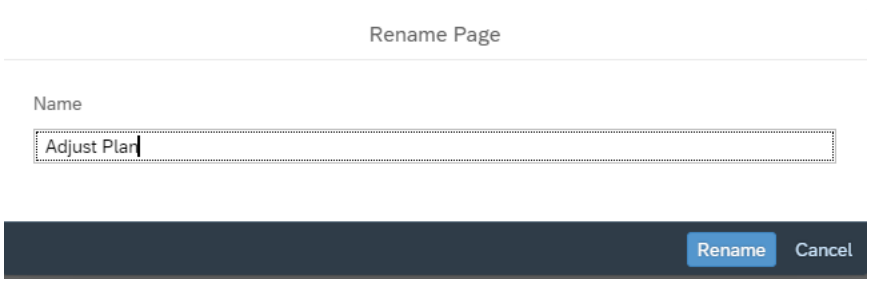
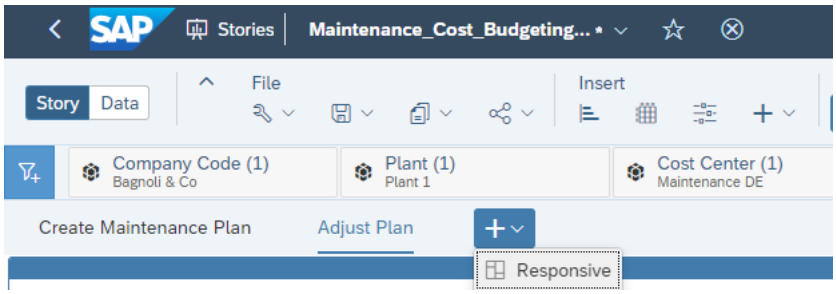
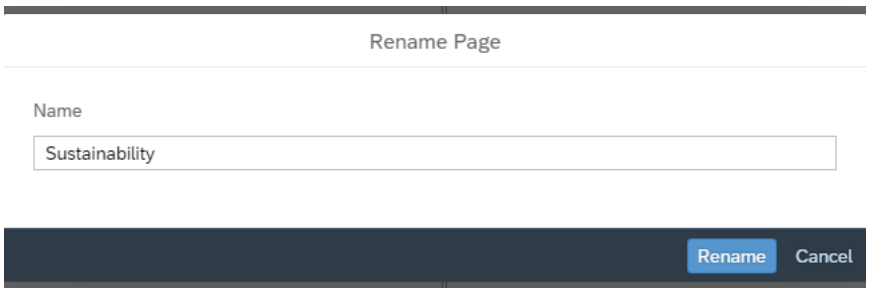
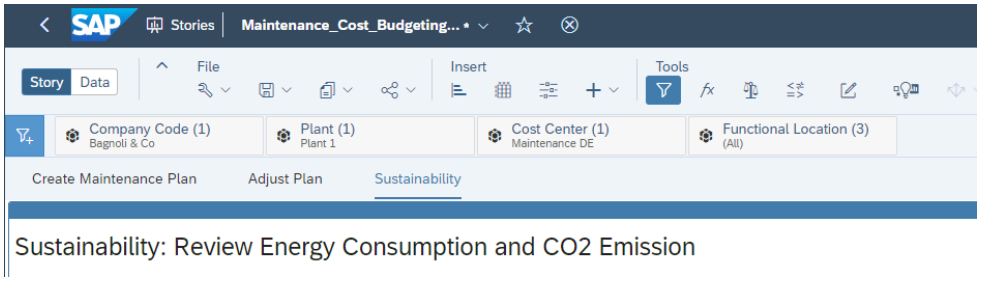
Explanation	Screenshot
Select functional location “1010-SSF-SAC-PLAR1-CTM1” in the story filter. The table display is adjusted accordingly	
Use the table control to manually adjust the of maintenance cost. Select March 2022 for proactive maintenance category of the proactive maintenance version and right -10% and press enter	
SAC reduce the cost by 10%	
Right Click on the cell and select Add Data Point Comment	

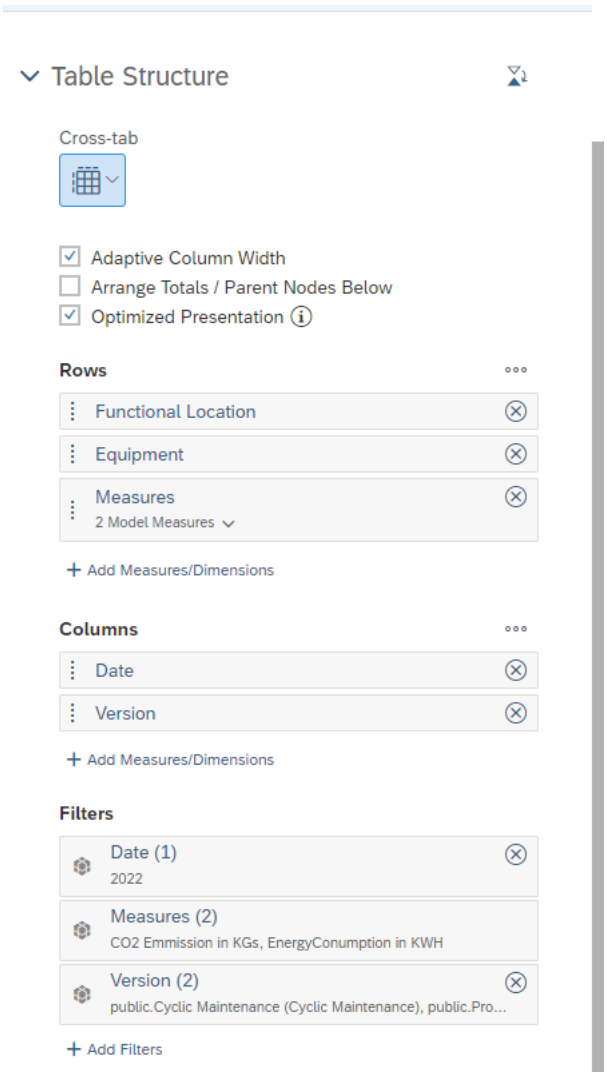
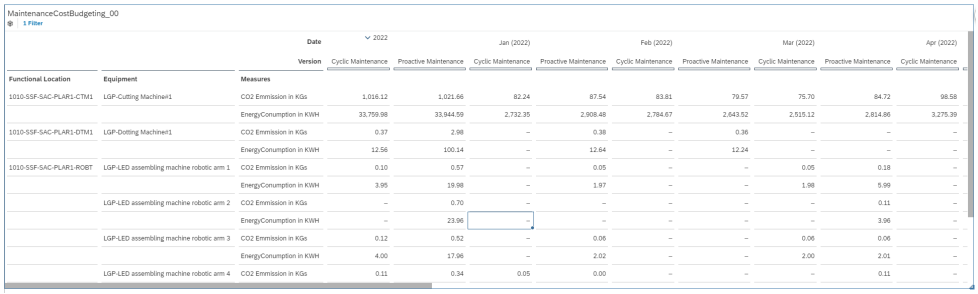
Explanation	Screenshot
The comment dialog box opens. Provide reason for the cost reduction and click on Add Comment	
The data point comment is added to the cell	
Save the changes to the database by selecting Publish Data	

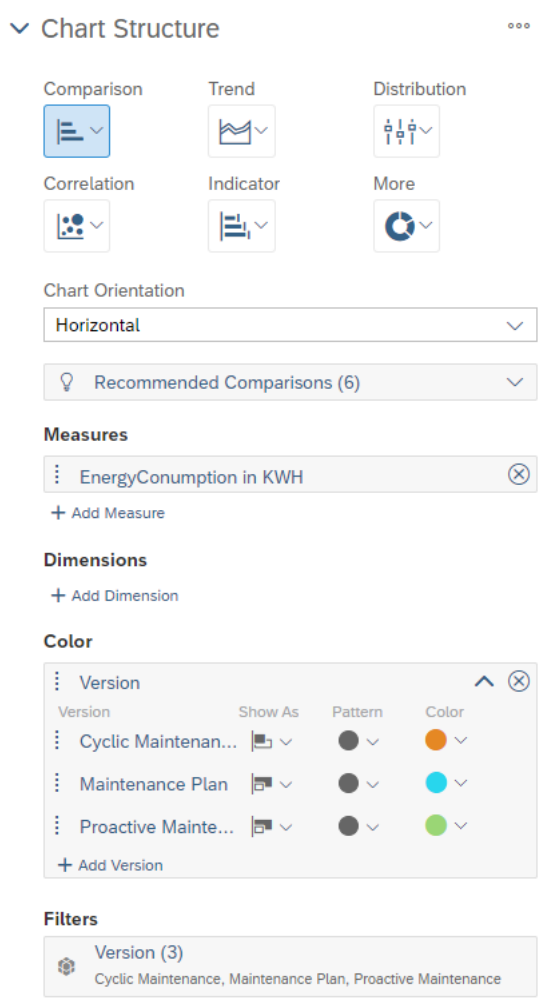
Explanation	Screenshot
Insert a chart to show comparison between Proactive, Cyclic and Plan version for 2022. Configure the chart as shown	

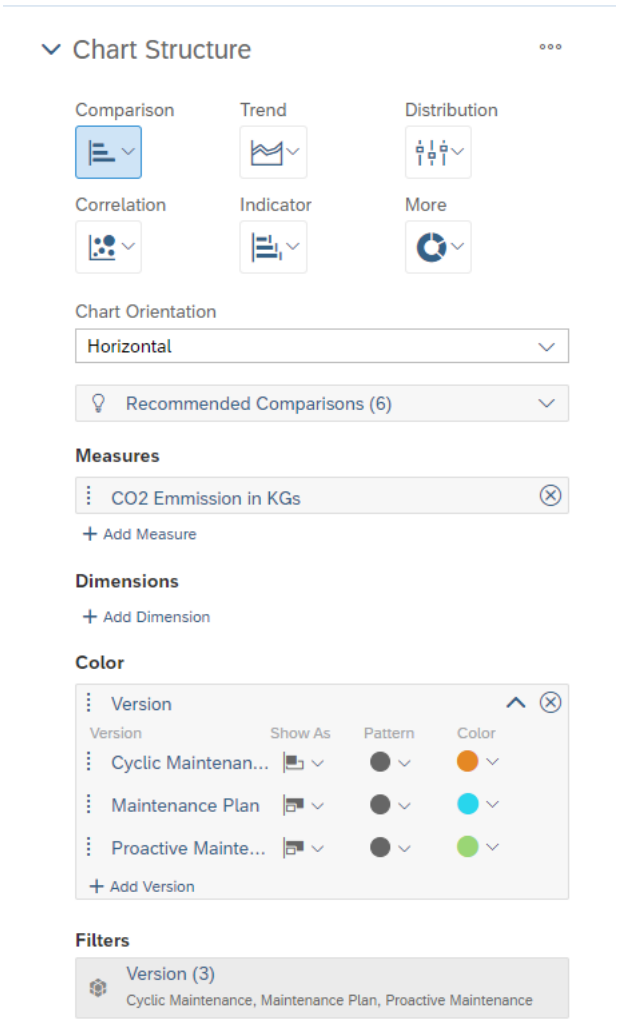
Explanation	Screenshot
	
Click on data action Create Budget	
Select Source Version and Click on Run	

Explanation	Screenshot
The data action runs successfully, and the plan version is available in the chart for comparison	
Select all functional location in the story filter and rerun te data action to copy proactive plan version to budget version Maintenance Plan	

Explanation	Screenshot
Rename the page and save the story	
Review the Sustainability	
Add a new page	
Rename the page Sustainability	
Remove the right lane. Add title Sustainability: Review Energy Consumption and CO2 Emission	

Explanation	Screenshot
Insert Table and Configure the table as shown	 
Insert Chart to show the energy consumption and CO2 emission in different versions for 2022	Energy Consumption

Explanation	Screenshot
	

Explanation	Screenshot
	
Save the story