

PUBLIC

SAP ANALYTICS CLOUD, ANALYTICS DESIGNER, IN ACTION

ANA362

Exercises / Solutions

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BEFORE YOU START

Due to time constraints during the Hands-on session, it is recommended that you first take a look at the different exercises and then decide which ones you want to work through first.

Exercise 1: ANA362_Exercise_1

Estimated Duration: **[90] minutes**

With this exercise you are going to create a simple responsive analytical application and embed it into a HTML page and run it with your mobile phone.

Exercise 2: ANA362_Exercise_2

Estimated Duration: **[45] minutes**

With this exercise you will be able to explore and use the Generic Template.

With this template you will have the possibility to select and modify your Data Set using the available functionalities.

Exercise 3: AIN362_Exercise_3

Estimated Duration: **[45] minutes**

Here you are going to create a simple feedback to ask user to enter the rating of a web page and then calculate the average score of this web page.

You are going to leverage the responsive capability of analytics designer and integration with SAC planning capability to implement this scenario.

All the exercises are independent from each other. You can choose the exercise to work on based on your knowledge and interest.

Connect to Sap Analytics Cloud

you can directly type the following address in your **Google Chrome**:

<https://ANA362.eu10.hcs.cloud.sap>

ANA362 EXERCISE 1

Overview

Estimated time: [60] minutes

Objective

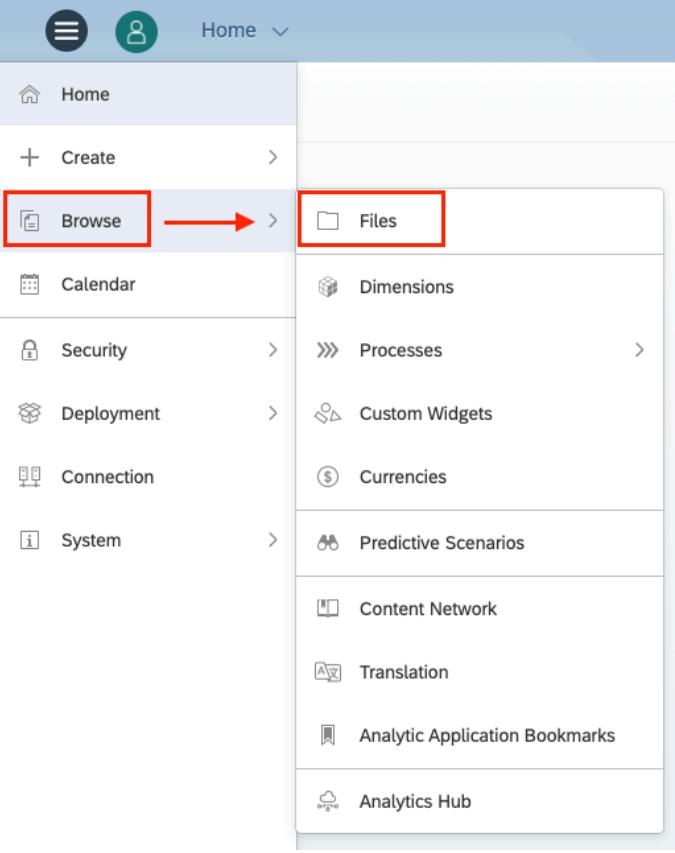
With this exercise you will be able to learn the basic workflow of creating a simple responsive analytical application with SAC Analytics Designer.

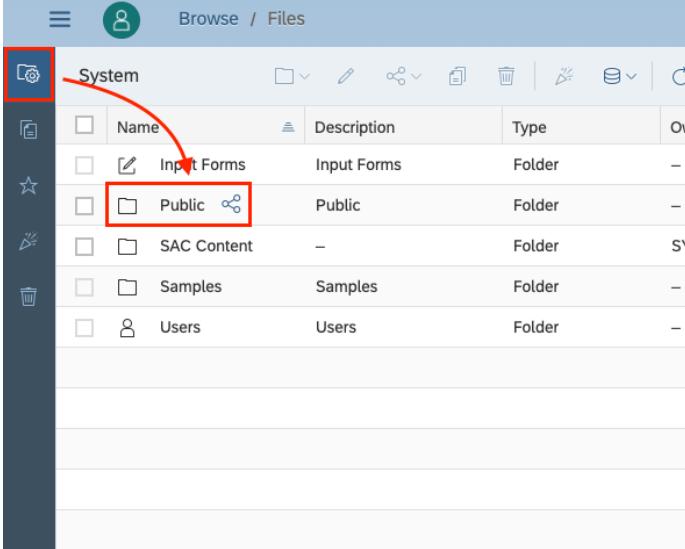
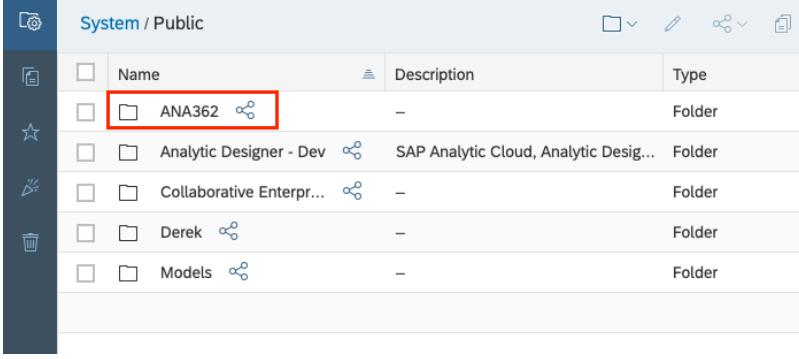
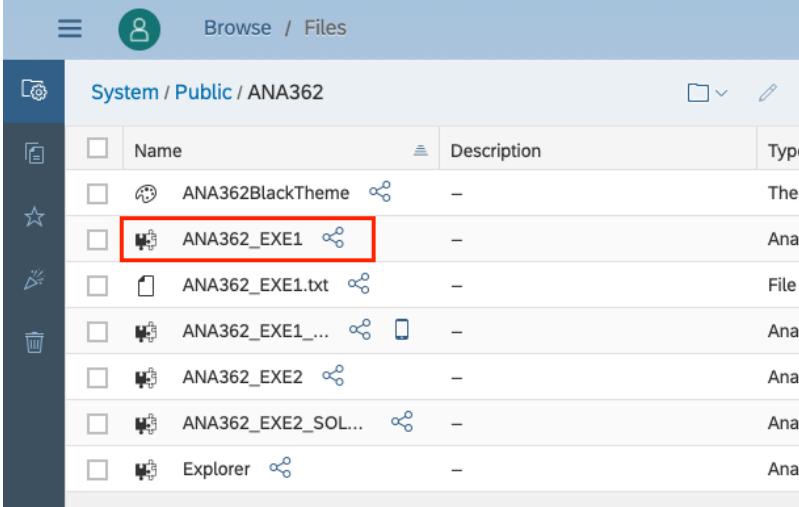
Exercise Description

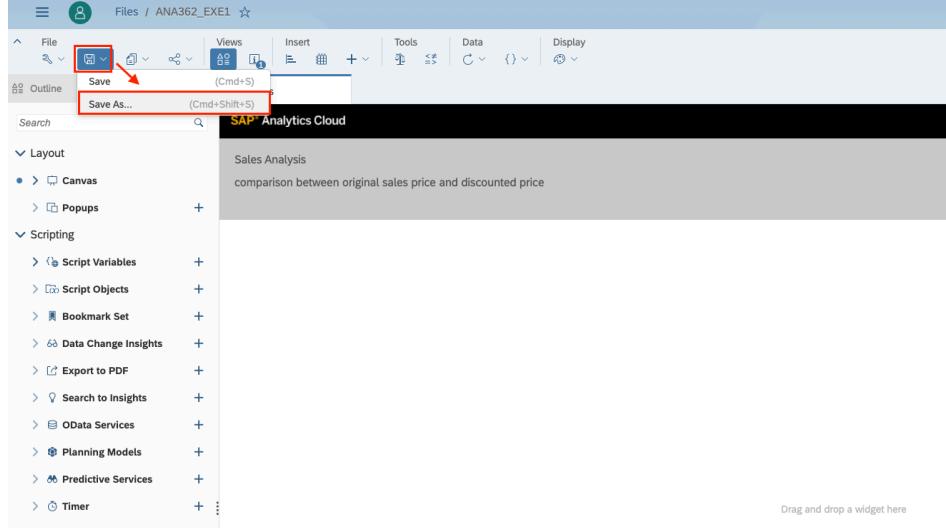
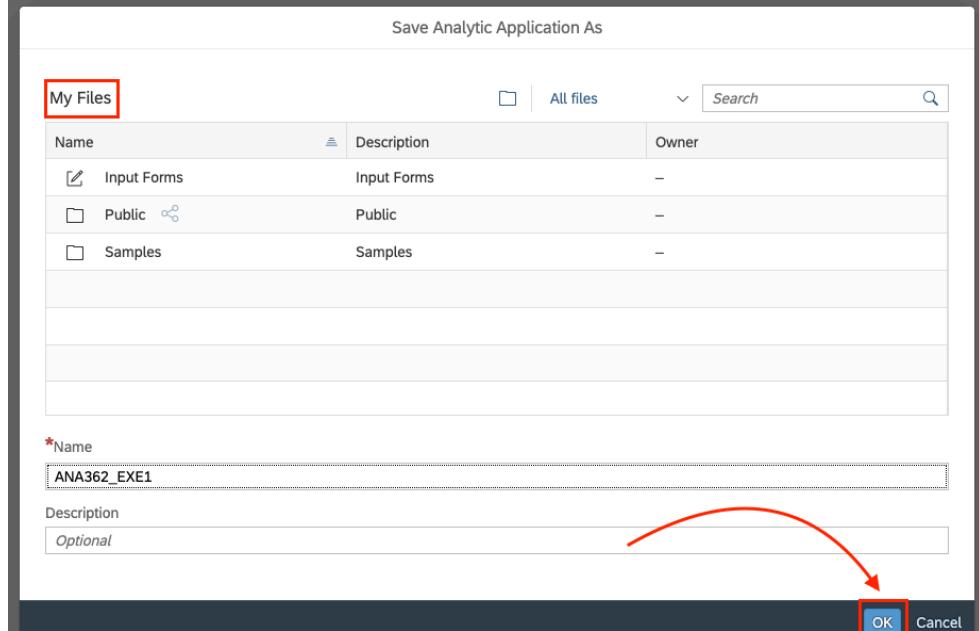
You are going to execute the following steps within this exercise:

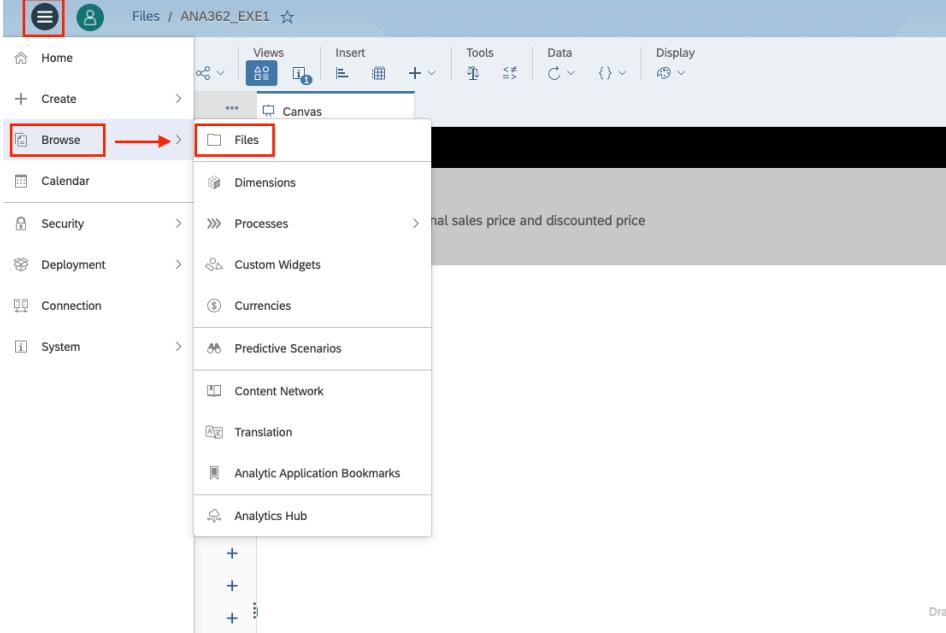
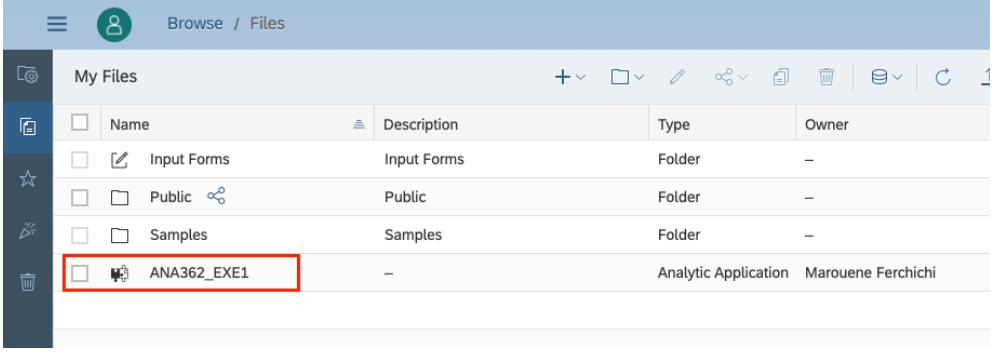
- Add flow panel, charts, table, slider, click event to canvas, configure above objects
- Define Global Script Variable
- Use Global Script Variable for calculated measures
- Set the application to mobile enabled
- Create a theme ANA362_XXBLACKTHEME, Assign application to theme
- Download SAC iOS Mobile APP and run the application
- Embedding: Add windows post message and post message received, adjust html, and run the application within HTML5

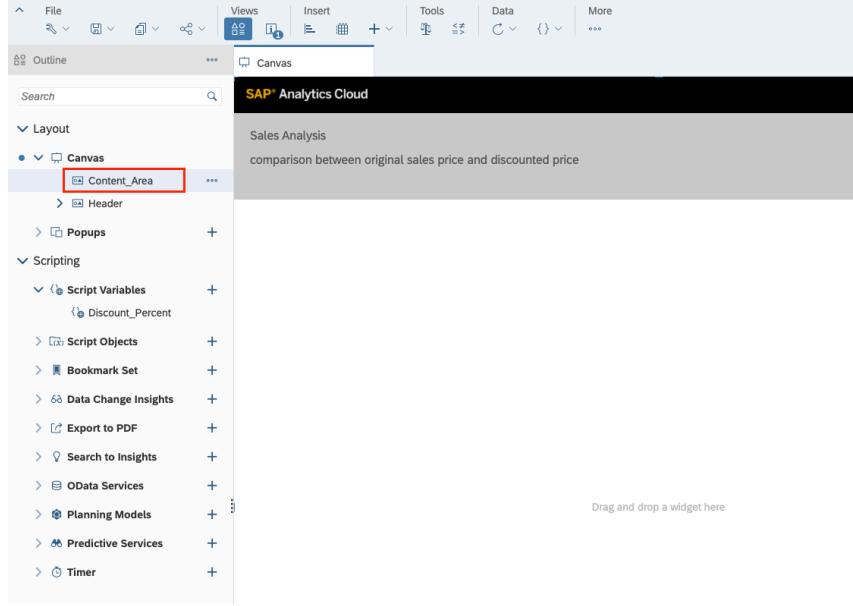
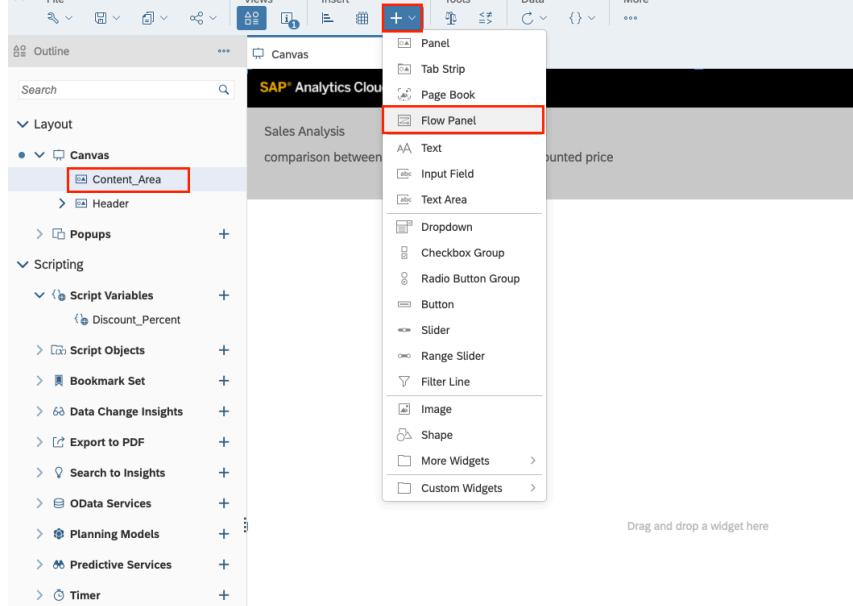
Part 1: Add Flow Panel, Slider, Text to the Canvas & Create a Script Variable

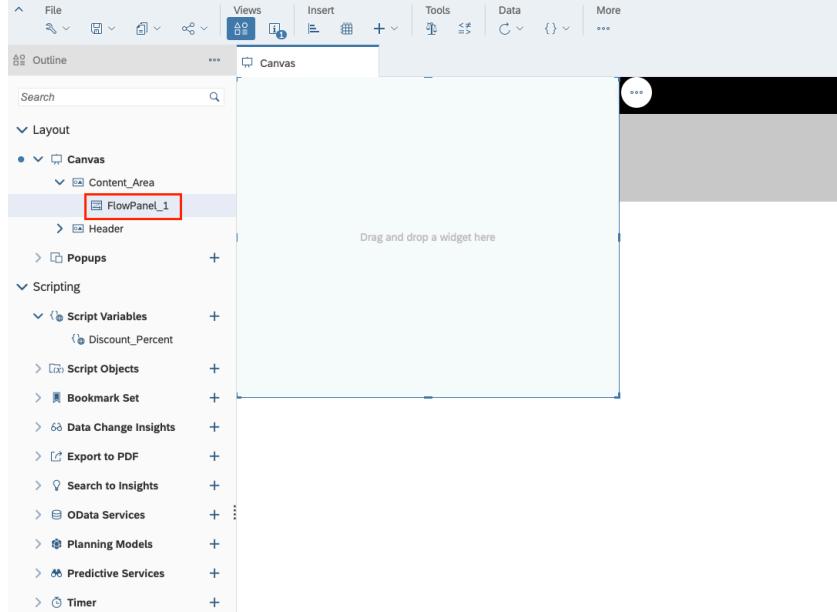
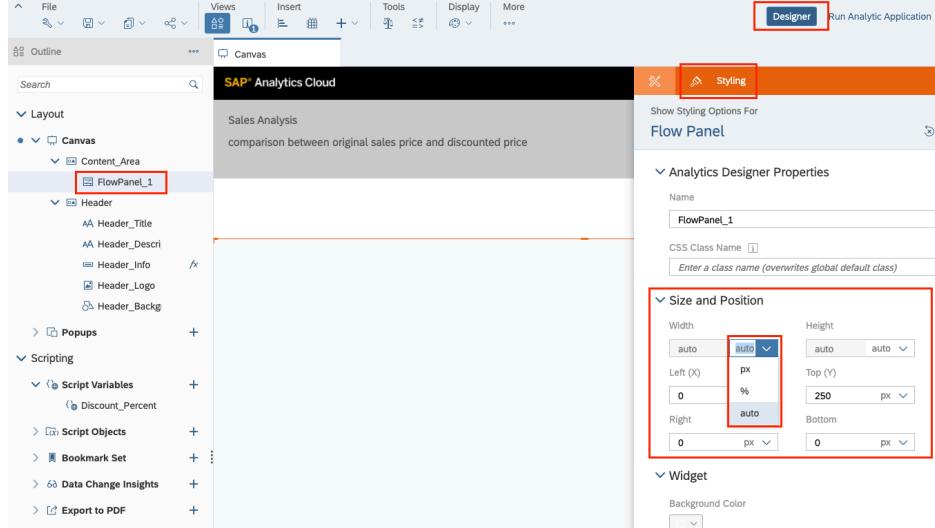
Explanation	Screenshot
1. Click on the Main Menu icon	 <p>The screenshot shows the main menu interface. The top navigation bar includes a main menu icon (three horizontal lines), a user profile icon, and the text "Home". Below the navigation bar, there are two tabs: "Today" (underlined) and "Catalog". A large blue banner with the word "Hello" is visible. At the bottom right, there is a button labeled "Ask a question".</p>
2. Select Browse and then Files to be able to select your analytical applications.	 <p>The screenshot shows the main menu interface with the sidebar expanded. The "Create" section has a red box around the "Browse" option. An arrow points from "Browse" to the "Files" option, which is also highlighted with a red box. The sidebar also lists "Home", "Calendar", "Security", "Deployment", "Connection", and "System". The main content area on the right lists "Dimensions", "Processes", "Custom Widgets", "Currencies", "Predictive Scenarios", "Content Network", "Translation", "Analytic Application Bookmarks", and "Analytics Hub".</p>

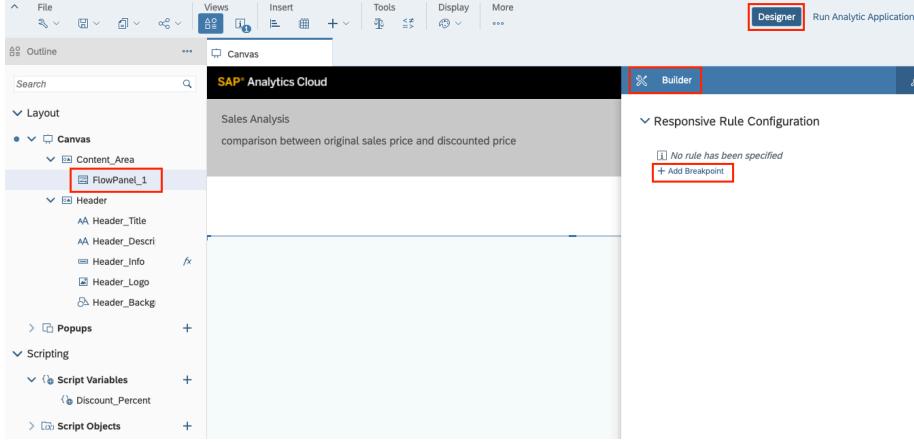
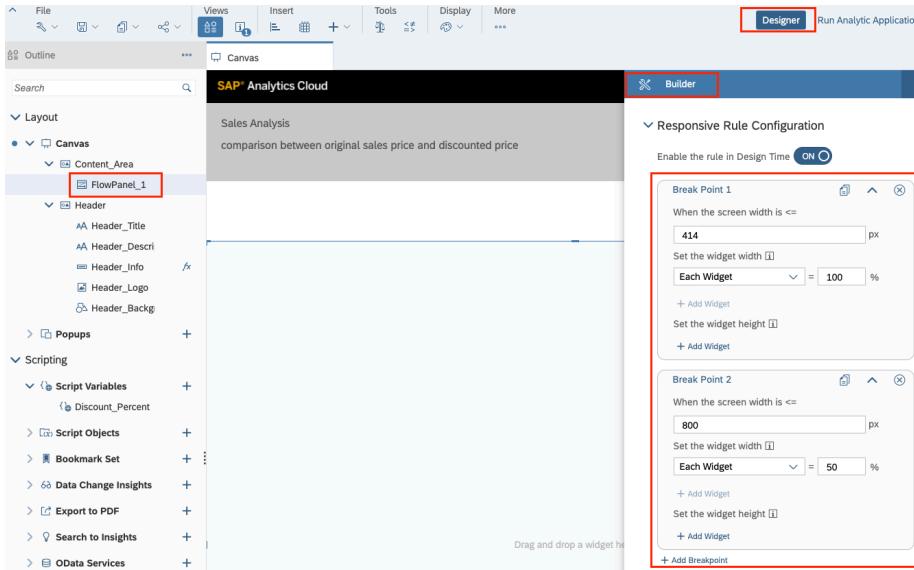
Explanation	Screenshot																								
<p>3. Select the icon System, and then open the folder Public.</p>	 <p>The screenshot shows the SAP Fiori Launchpad with the 'System' icon highlighted in red. A red arrow points from the 'System' icon to the 'Public' folder in the list below. The 'Public' folder is also highlighted with a red box.</p> <table border="1"> <thead> <tr> <th>Name</th> <th>Description</th> <th>Type</th> </tr> </thead> <tbody> <tr> <td>Input Forms</td> <td>Input Forms</td> <td>Folder</td> </tr> <tr> <td>Public</td> <td>Public</td> <td>Folder</td> </tr> <tr> <td>SAC Content</td> <td>—</td> <td>Folder</td> </tr> <tr> <td>Samples</td> <td>Samples</td> <td>Folder</td> </tr> <tr> <td>Users</td> <td>Users</td> <td>Folder</td> </tr> </tbody> </table>	Name	Description	Type	Input Forms	Input Forms	Folder	Public	Public	Folder	SAC Content	—	Folder	Samples	Samples	Folder	Users	Users	Folder						
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<p>4. Navigate to the folder ANA362</p>	 <p>The screenshot shows the SAP Fiori Launchpad with the 'ANA362' folder highlighted in red.</p> <table border="1"> <thead> <tr> <th>Name</th> <th>Description</th> <th>Type</th> </tr> </thead> <tbody> <tr> <td>ANA362</td> <td>—</td> <td>Folder</td> </tr> <tr> <td>Analytic Designer - Dev</td> <td>SAP Analytic Cloud, Analytic Desig...</td> <td>Folder</td> </tr> <tr> <td>Collaborative Enterpr...</td> <td>—</td> <td>Folder</td> </tr> <tr> <td>Derek</td> <td>—</td> <td>Folder</td> </tr> <tr> <td>Models</td> <td>—</td> <td>Folder</td> </tr> </tbody> </table>	Name	Description	Type	ANA362	—	Folder	Analytic Designer - Dev	SAP Analytic Cloud, Analytic Desig...	Folder	Collaborative Enterpr...	—	Folder	Derek	—	Folder	Models	—	Folder						
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<p>5. Click on the exercise ANA362_EXE1 to open it and then you will save it with My Files folder.</p>	 <p>The screenshot shows the SAP Fiori Launchpad with the 'ANA362_EXE1' file highlighted in red.</p> <table border="1"> <thead> <tr> <th>Name</th> <th>Description</th> <th>Type</th> </tr> </thead> <tbody> <tr> <td>ANA362BlackTheme</td> <td>—</td> <td>Theme</td> </tr> <tr> <td>ANA362_EXE1</td> <td>—</td> <td>Anal...</td> </tr> <tr> <td>ANA362_EXE1.txt</td> <td>—</td> <td>File</td> </tr> <tr> <td>ANA362_EXE1_...</td> <td>—</td> <td>Anal...</td> </tr> <tr> <td>ANA362_EXE2</td> <td>—</td> <td>Anal...</td> </tr> <tr> <td>ANA362_EXE2_SOL...</td> <td>—</td> <td>Anal...</td> </tr> <tr> <td>Explorer</td> <td>—</td> <td>Anal...</td> </tr> </tbody> </table>	Name	Description	Type	ANA362BlackTheme	—	Theme	ANA362_EXE1	—	Anal...	ANA362_EXE1.txt	—	File	ANA362_EXE1_...	—	Anal...	ANA362_EXE2	—	Anal...	ANA362_EXE2_SOL...	—	Anal...	Explorer	—	Anal...
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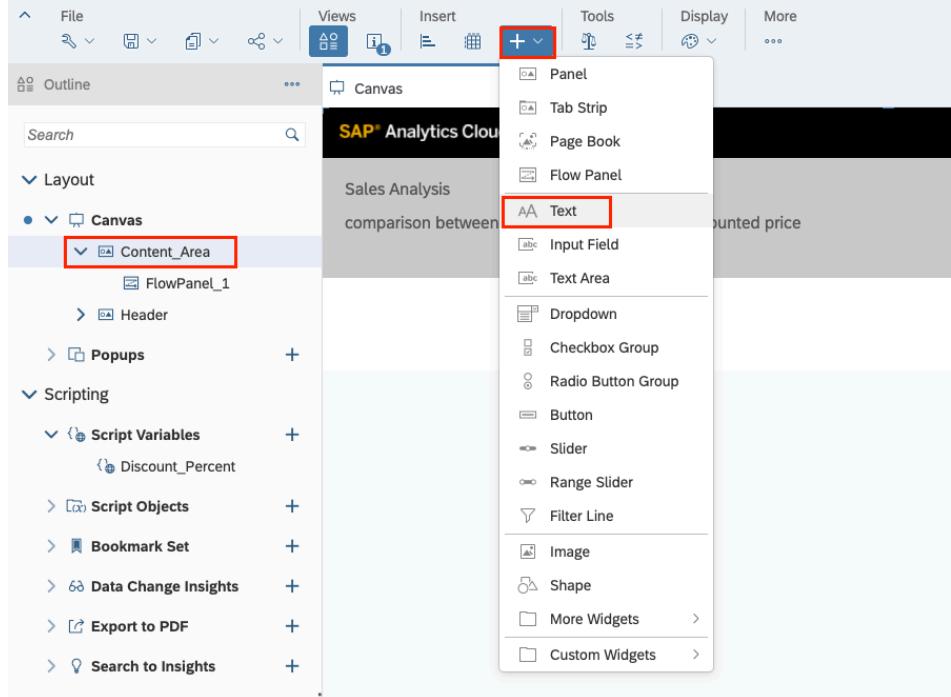
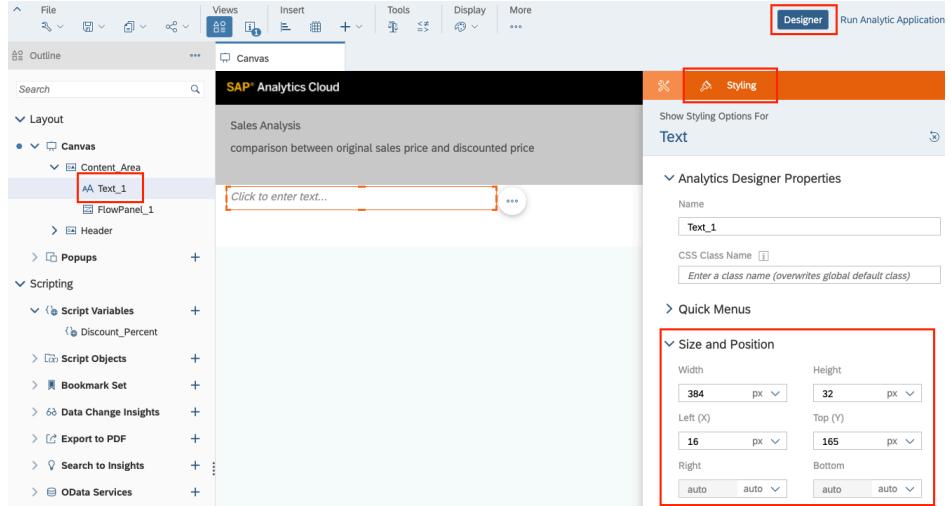
Explanation	Screenshot
<p>6. Before you start the different steps of the exercise, first of all YOU SHOULD save the application under My Files and rename it so you can work on your own application.</p> <p>Click on the Save icon → Save As</p>	
<p>7. Be sure that you are under the folder My Files.</p> <p>Press OK and the application will be saved under your private folder My Files</p>	

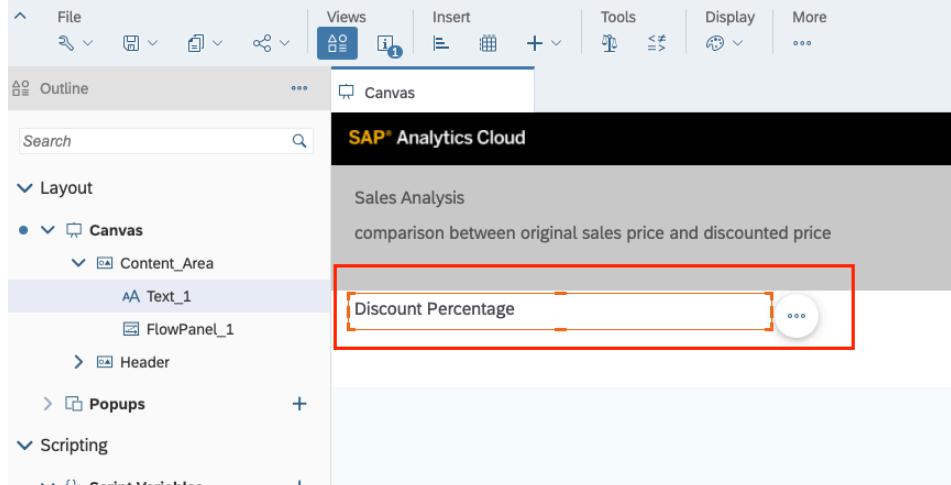
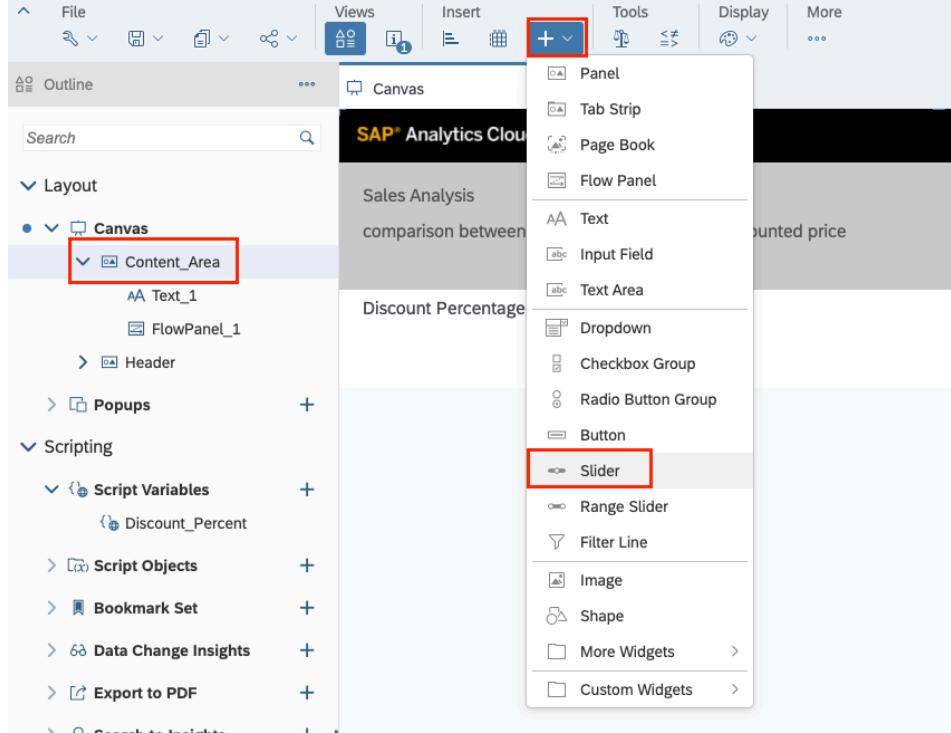
Explanation	Screenshot
<p>8. Now you can navigate back to My Files again in order to see your application.</p>	 <p>The screenshot shows the SAP Fiori Launchpad interface. On the left, there's a navigation bar with icons for Home, Create, Browse, Calendar, Security, Deployment, Connection, and System. The 'Browse' icon is highlighted with a red box and has a red arrow pointing to it. On the right, there's a list of items under 'Views': Canvas, Files (which is also highlighted with a red box), Dimensions, Processes, Custom Widgets, Currencies, Predictive Scenarios, Content Network, Translation, Analytic Application Bookmarks, and Analytics Hub. Below this is a section with three '+' buttons and a 'Drag' placeholder.</p>
<p>9. Click on the exercise ANA362_EXE1 to open it within My Files folder.</p>	 <p>The screenshot shows the 'My Files' list view. It has a header with columns: Name, Description, Type, and Owner. There are four entries: 'Input Forms' (Folder, Owner -), 'Public' (Folder, Owner -), 'Samples' (Folder, Owner -), and 'ANA362_EXE1' (Analytic Application, Owner: Marouene Ferchichi). The 'ANA362_EXE1' entry is highlighted with a red box.</p>

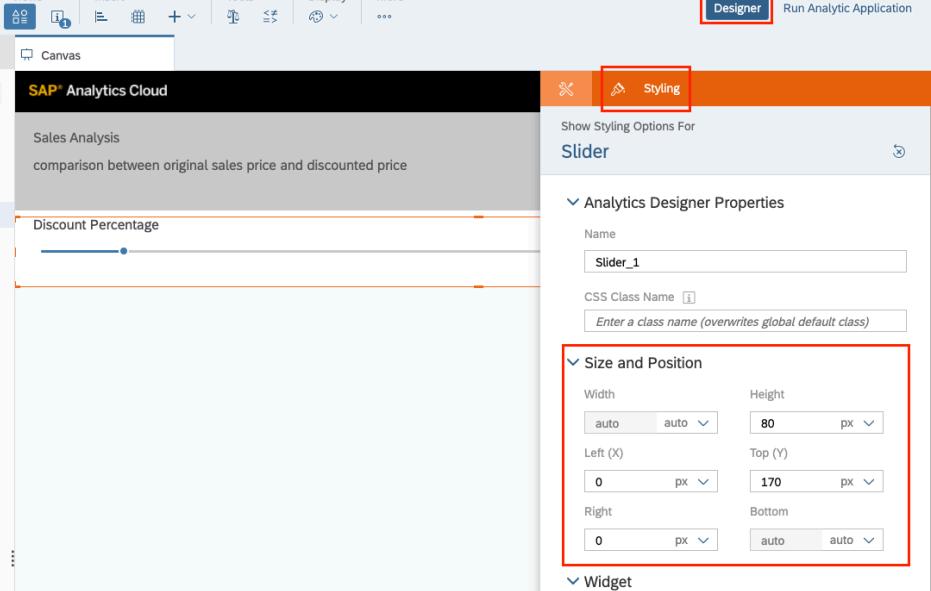
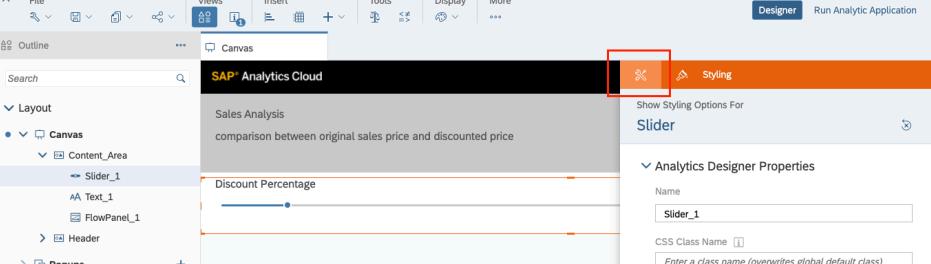
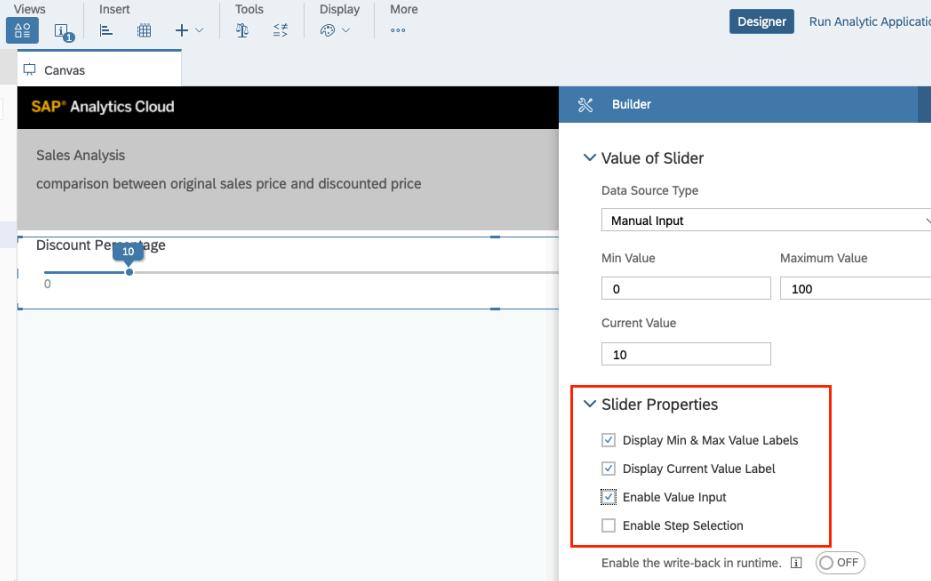
Explanation	Screenshot
<p>10. Now you will add a Flow Panel widget to the canvas under the Content Area. Please switch to the Content Area by clicking on Content_Area from the layout panel on the left.</p>	
<p>11. Move to insert from the toolbar and click on the + sign, then select the widget Flow Panel.</p>	

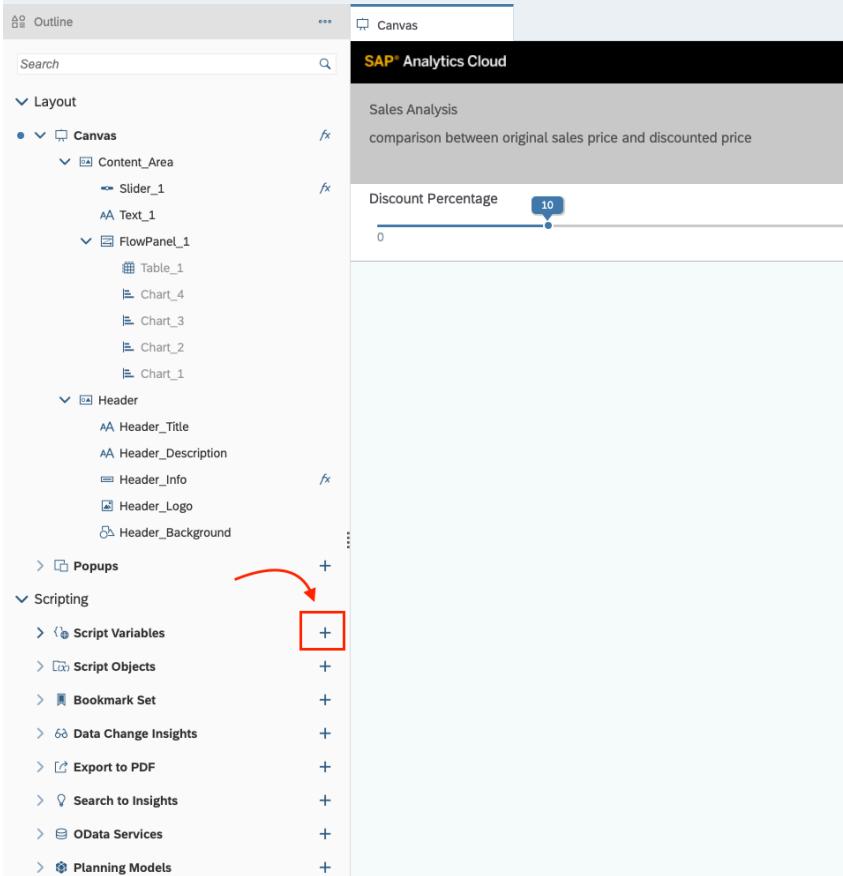
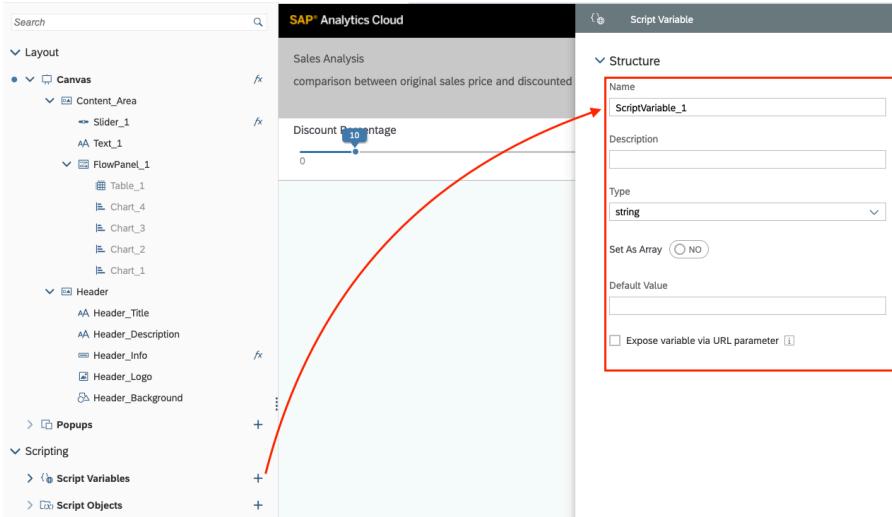
Explanation	Screenshot
<p>12. As you can see that the new widget (Flow Panel) was added as a new component in the Layout under Content Area.</p> <p>Please pay attention, FlowPanel_1 should be under the Content Area.</p>	
<p>13. Define the layout configuration of the Flow Panel by opening the designer panel then to Styling.</p> <p>Change the default configuration to:</p> <p>Width: auto Height: auto Left: 0 px Top: 250 px Right: 0 px Bottom: 0 px</p>	

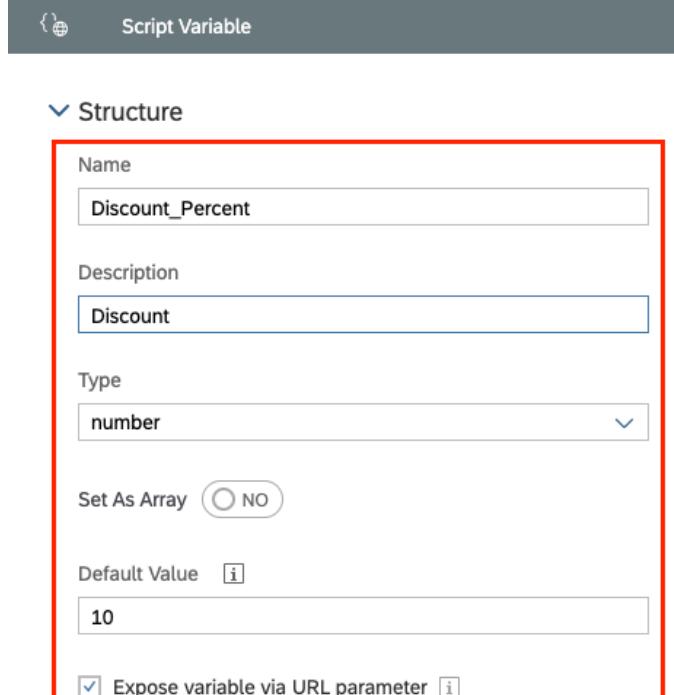
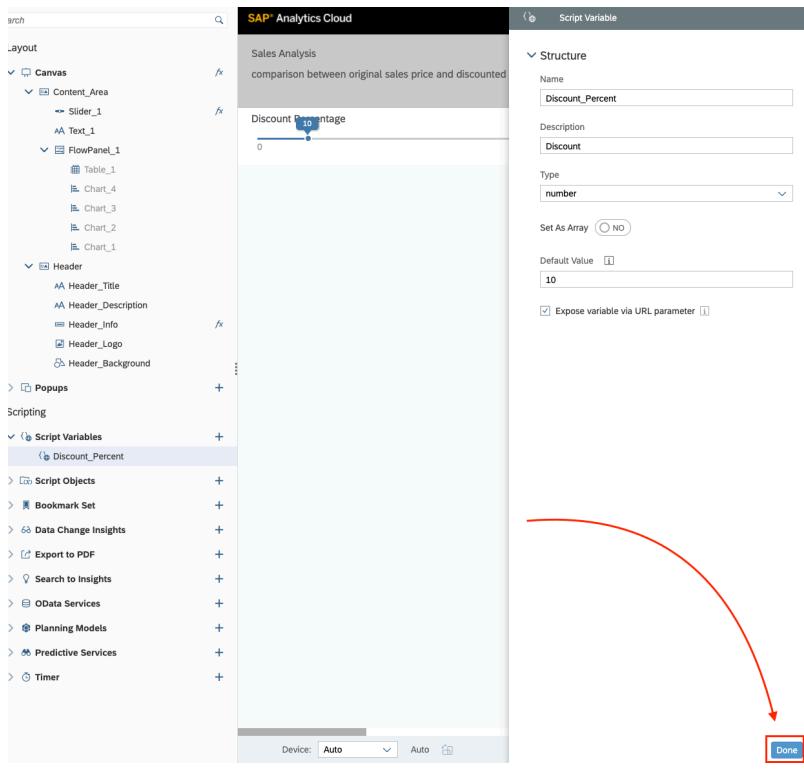
Explanation	Screenshot
<p>14. Define the responsive rule configuration of the Flow Panel by adding 2 Break point in order to set the behave of the widget with the different screen size.</p>	
<p>15. Define the break points as shown in the screenshot:</p> <p>Break Point 1: Screen Width: 414 px Widget width: Each widget = 100%</p> <p>Break Point 2: Screen Width: 800 px Widget width: Each widget = 50%</p>	

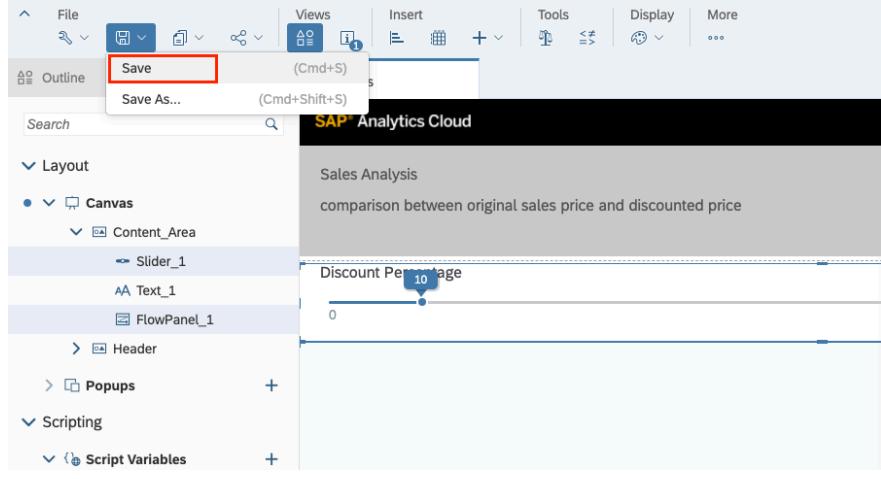
Explanation	Screenshot
<p>16. Let's add a Text Widget.</p> <p>This widget will be used as a description for the Slider that we will insert later.</p> <p>Click on the (+) sign from the insert toolbar and then select Text.</p> <p>You should select Content_Area from the Outline Panel in order to have the Text Widget under Content Area.</p>	
<p>17. Define the layout configuration of the Text widget:</p> <p>Width: 384 px Height: 32 px Left: 16 px Top: 165 px Right: auto Bottom: auto</p>	

Explanation	Screenshot
<p>18. Enter Discount Percentage in the text field.</p>	
<p>19. Now we will add a Slider widget to the Content Area.</p> <p>Click on the plus sign again (+) to insert the Slider.</p>	

Explanation	Screenshot
<p>20. Define the layout configuration of the Slider widget:</p> <p>Width: auto Height: 80 px Left: 0 px Top: 170 px Right: 0 px Bottom: auto</p>	
<p>21. Toggle the Designer panel to the Builder panel.</p>	
<p>22. Select the following options for the Slider:</p> <p><input checked="" type="checkbox"/> Display Min & Max Value Labels <input checked="" type="checkbox"/> Display Current Value Label <input checked="" type="checkbox"/> Enable Value Input <input type="checkbox"/> Enable Step Selection</p>	

Explanation	Screenshot
<p>23. With the previous step we defined the Slider as widget. Now, we are going to define a script variable to represent the current selected (via slider) discount value.</p> <p>Go to Scripting → Script Variable View. Click on the icon + to add a new Variable.</p>	
<p>24. As next a new Panel will be opened. Let's Configure our Script Variable.</p>	

Explanation	Screenshot
<p>25. Let's enter some configurations:</p> <p>Name: Discount_Percent</p> <p>Description: Discount</p> <p>Type: number (because the variable should represent numerical values)</p> <p>Default Value: 10</p> <p>Check the: "Expose variable via URL parameter" (This option enables you to pass script variable values via a URL parameter.)</p>	 <p>The screenshot shows the SAP Analytics Cloud interface with the 'Script Variable' configuration panel open. The 'Structure' section is highlighted with a red box. It contains fields for Name (Discount_Percent), Description (Discount), Type (number), Default Value (10), and a checked checkbox for 'Expose variable via URL parameter'. The 'Set As Array' option is set to 'NO'.</p>
<p>26. Click the button Done to close the configuration panel.</p>	 <p>The screenshot shows the SAP Analytics Cloud interface with the configuration panel closed. A red arrow points from the 'Done' button at the bottom right of the configuration panel to the 'Done' button at the bottom right of the main interface, indicating where to click to save changes.</p>

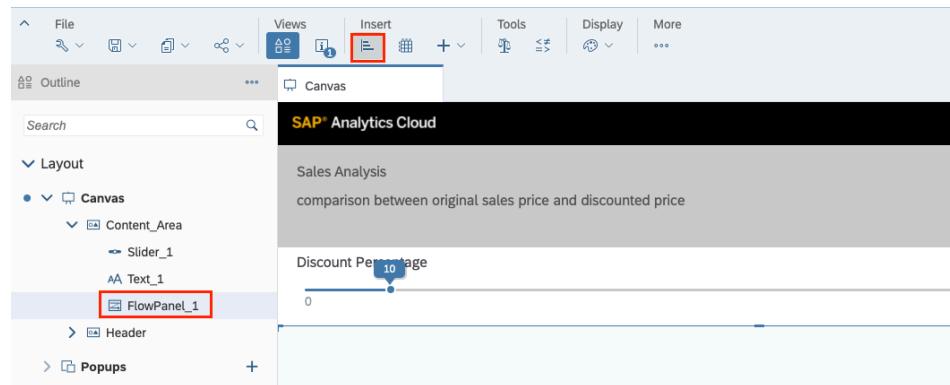
Explanation	Screenshot
27. Click on the floppy disk icon, then select Save from the display options.	 A screenshot of the SAP Analytics Cloud interface. The top navigation bar includes 'File' with a floppy disk icon, 'Views', 'Insert', 'Tools', 'Display', and 'More'. A dropdown menu is open under 'File' with 'Save' highlighted by a red box. Below the menu is a search bar and the text 'SAP Analytics Cloud'. The main workspace shows a title 'Sales Analysis' and a subtitle 'comparison between original sales price and discounted price'. On the left, a tree view shows 'Content_Area' with 'Slider_1', 'Text_1', and 'FlowPanel_1'. A slider widget labeled 'Discount Percentage' has its value set to 10. The bottom left corner of the slide shows the number 17.

Congratulations! You just finished the part 1 of Exercise 1.

In the **Part 2** of the exercise we are going to add different type of charts and table widget to the Canvas, also writing simple script for widgets

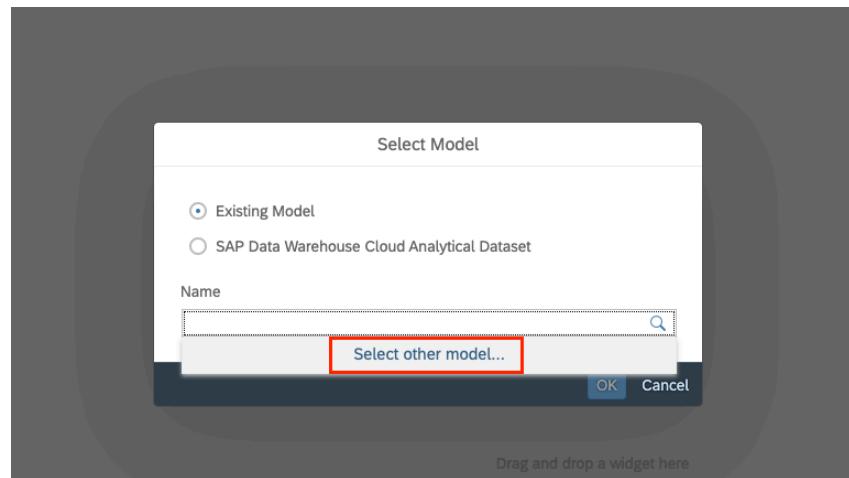
Part 2: Add Charts, Table & Script to Widgets

- Click on the **Chart icon** to add a **Chart (bar chart)** to the canvas under **FlowPanel_1** which should be selected from the outline panel.



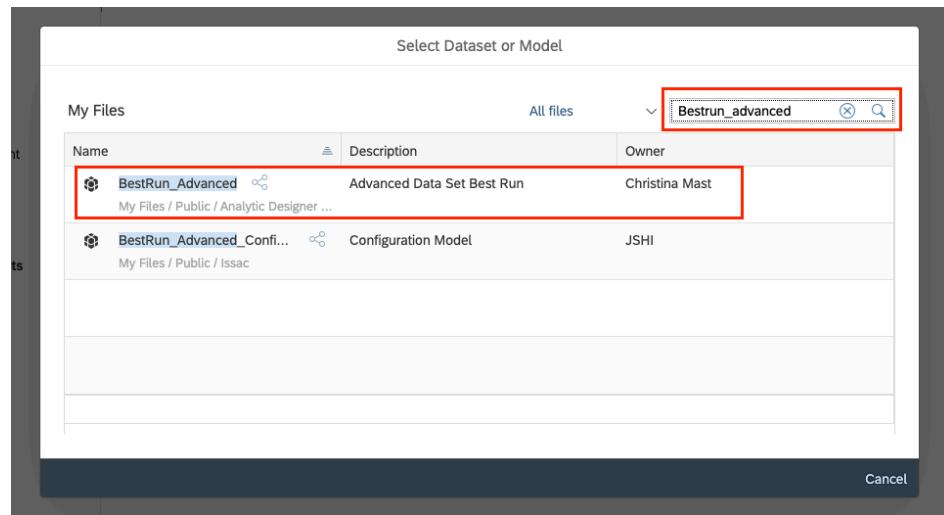
- Now you need to select a data source for the Chart widget. Please use **BestRun_Advanced** as a data source.

To find the data source click on **Select other model**



- Use the **search bar** on the top right from the Pop up to search for our data source as shown on the screenshot:

After you find the data source **BestRun_Advanced** Please select it



4. Toggle to the **Builder** panel to add measure(s) and dimension(s)

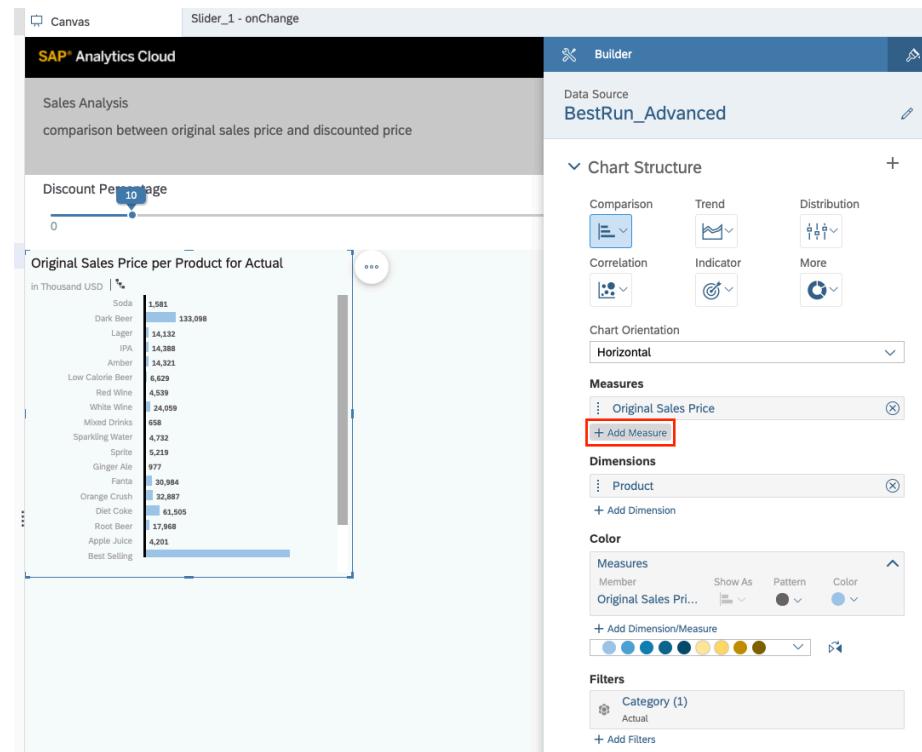
5. Select **Product** as a dimension

6. Select **Original Sales Price** as a measure via Add Measure

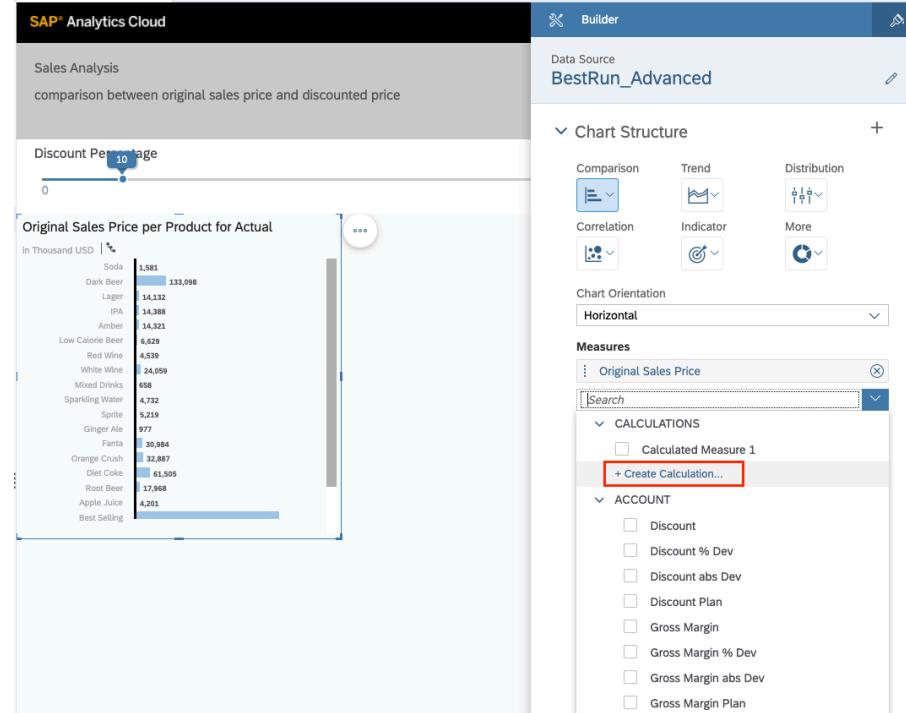
Measure	Value
Original Sales Price	133,098
Dark Beer	14,132
Lager	14,388
IPA	14,321
Amber	6,429
Low Calorie Beer	4,539
Red Wine	24,059
White Wine	658
Mixed Drinks	4,732
Sparkling Water	5,219
Sprite	977
Ginger Ale	30,984
Fanta	32,887
Orange Crush	61,505
Diet Coke	17,968
Root Beer	4,201
Apple Juice	
Best Selling	

7. Let's add a **Calculated Measure** based on the script variable which we already defined in the previous part of the exercise.

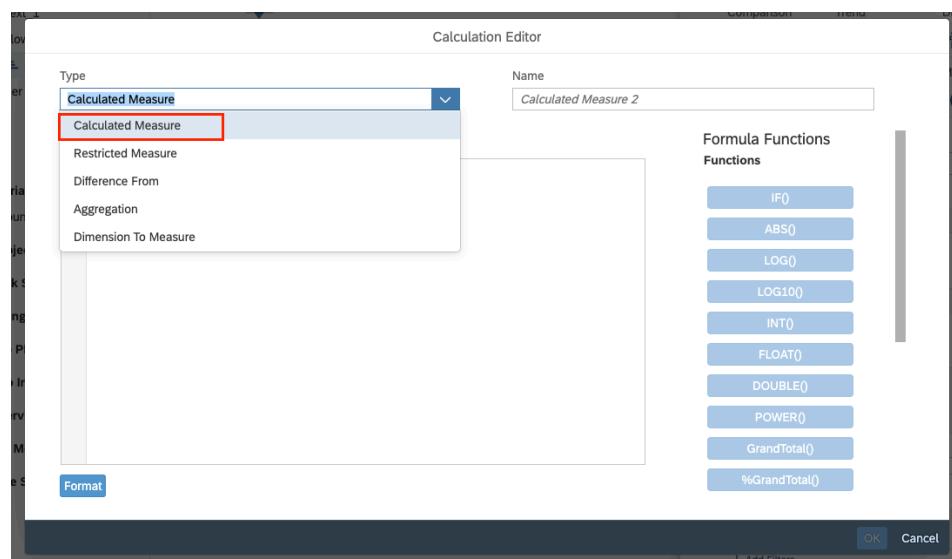
Click add Measure



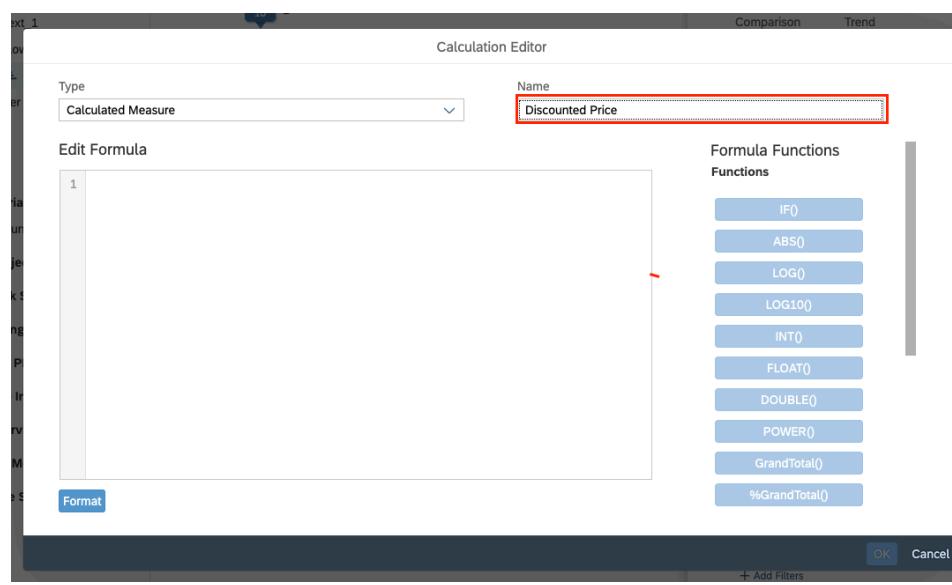
8. Click on **Create Calculation ...**



9. Select **Calculated Measure** as Type.



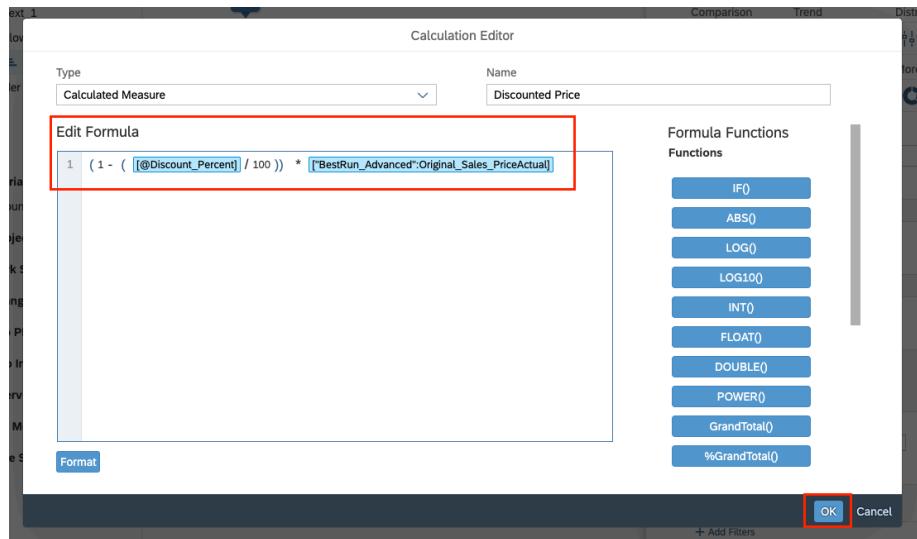
10. Enter the name of the calculated measure:
Discounted Price



11. Edit the formula and enter:

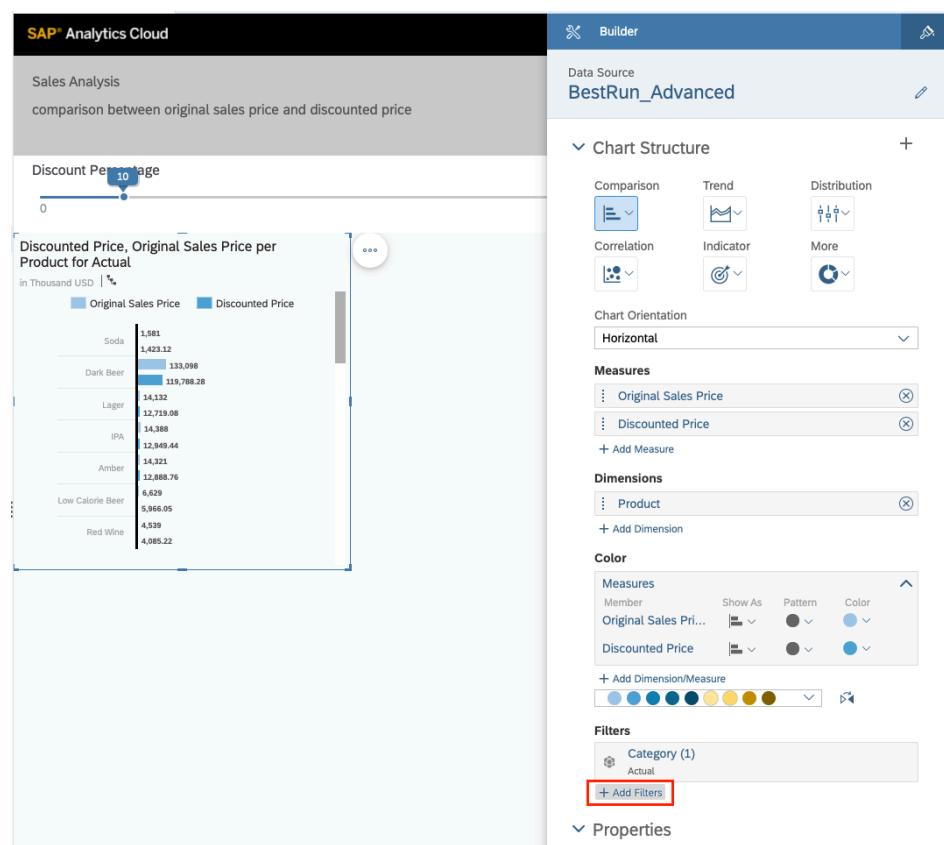
$(1 - (@Discount_Percent)/100) * ["BestRun_Advanced":Original_Sales_PriceActual]$

Press **OK** to confirm and to close the Calculation editor as well.

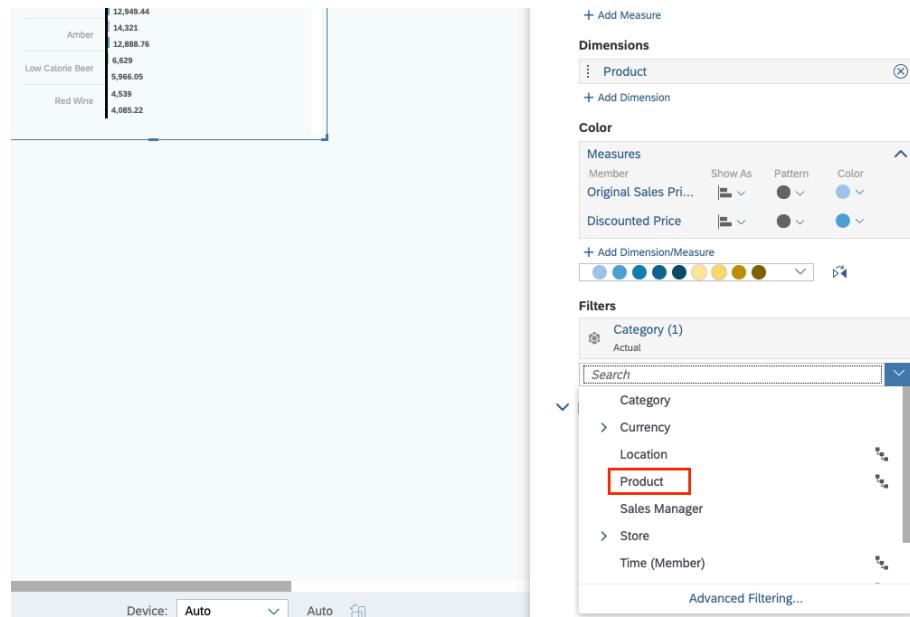


12. After we added 2 measures and 1 dimension, let's add a **filter** in order to show only some specific set of data in the Chart. In that case we will filter on the **Product**:

Click on **Add Filter**



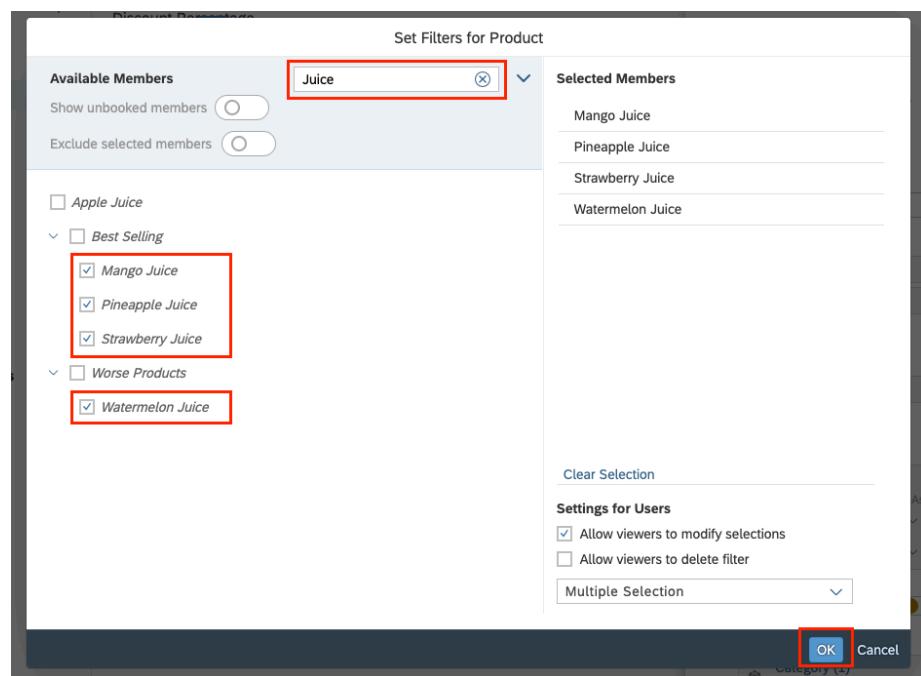
13. Click on **Product**. we want to filter on the Product dimension.



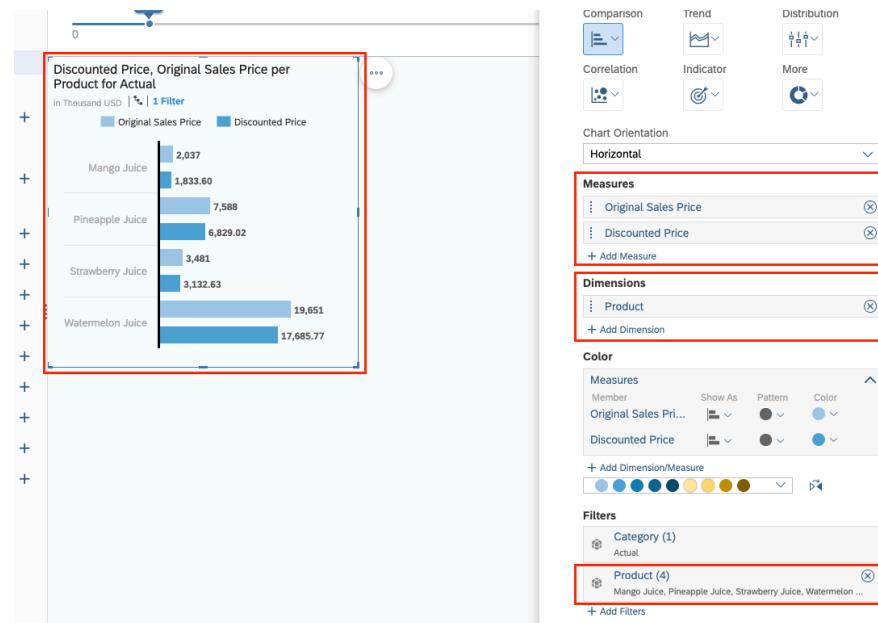
14. Search for **Juice**.

Select **Mango Juice**, **Pineapple Juice**, **Strawberry Juice** and **Watermelon Juice**.

15. Click **OK** to confirm.

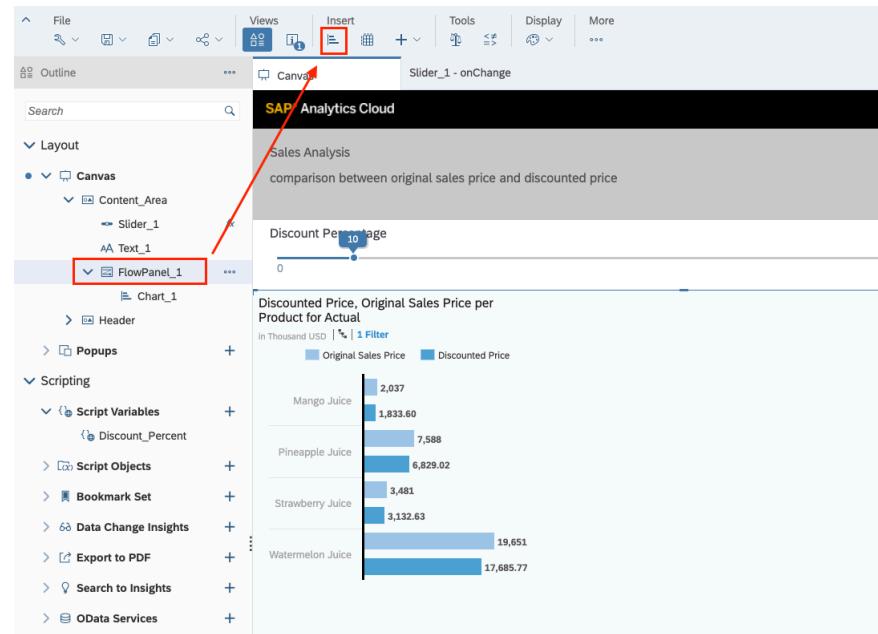


16. As you can see the result, we have now built a chart based in 1 dimension which is Product (only Juice Product) and 2 measures:



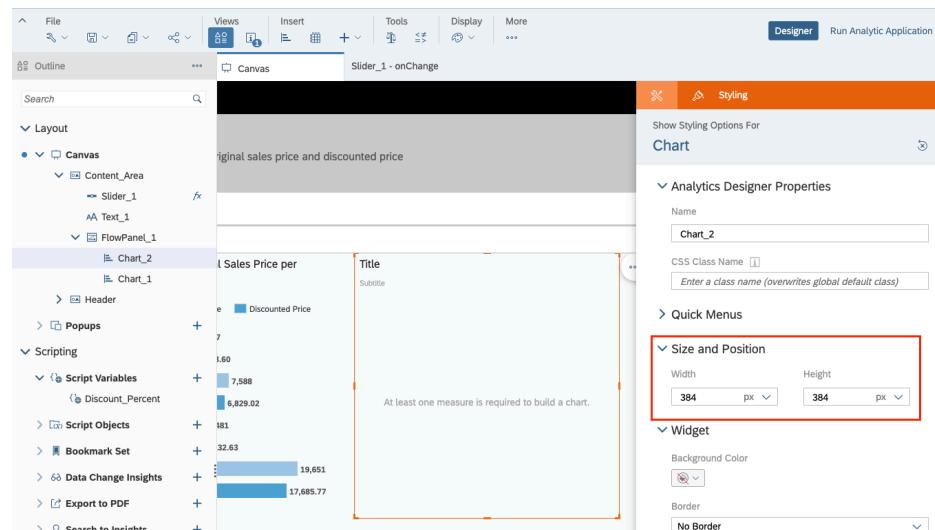
17. Let's add another type of chart a **Tree Map Chart**. Click on the icon **Chart** in order to add another chart widget.

Don't forget to select always the **FlowPanel_1** from the outline before adding the widget.



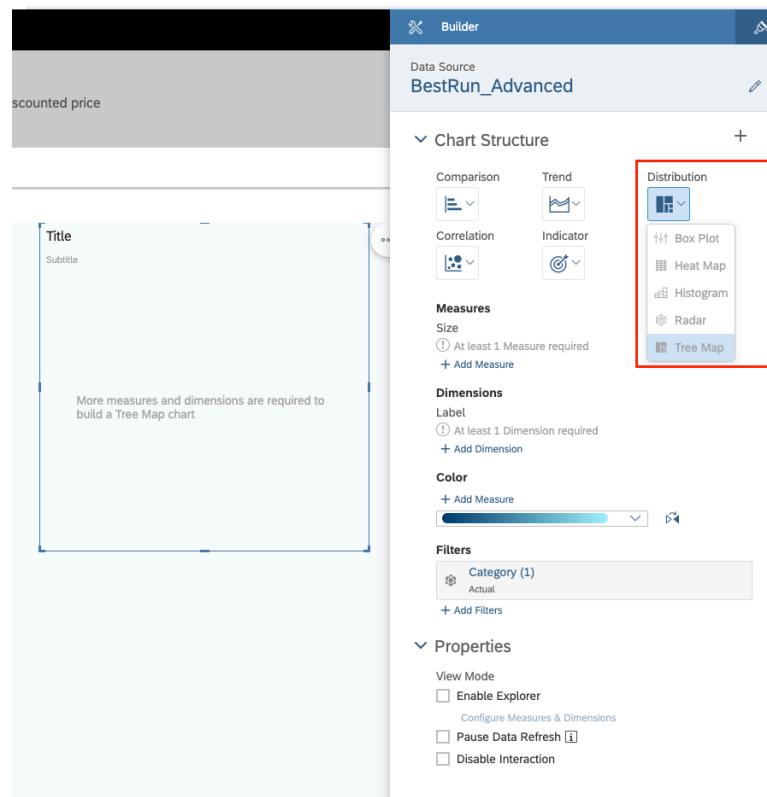
18. Keep the default layout configurations for the chart widget:

Width: 384 px
Height: 384 px

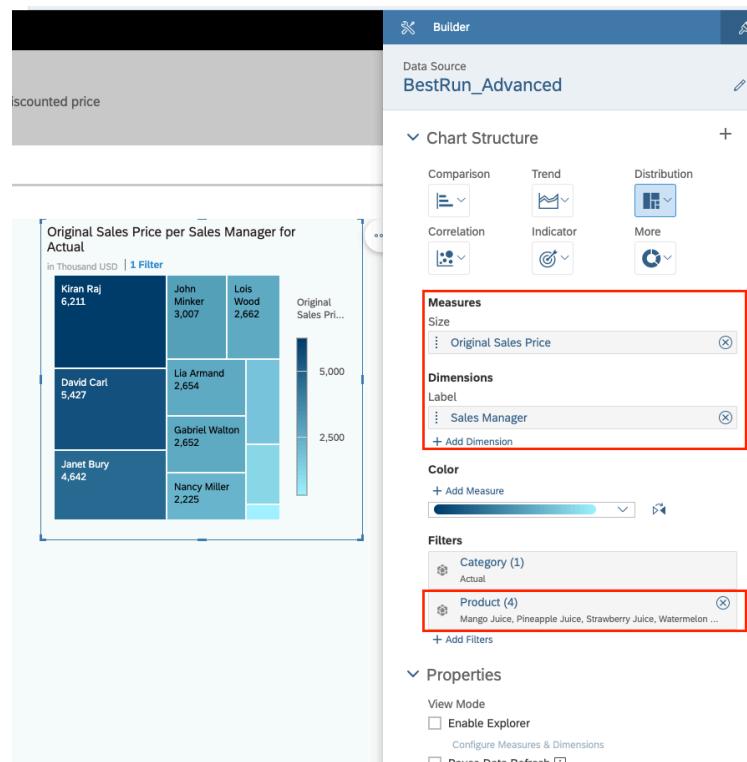


19. Toggle to the **Builder** panel in order to modify the default **Chart Structure** to Tree Map.

Under Chart Structure
→ Distribution → Tree Map



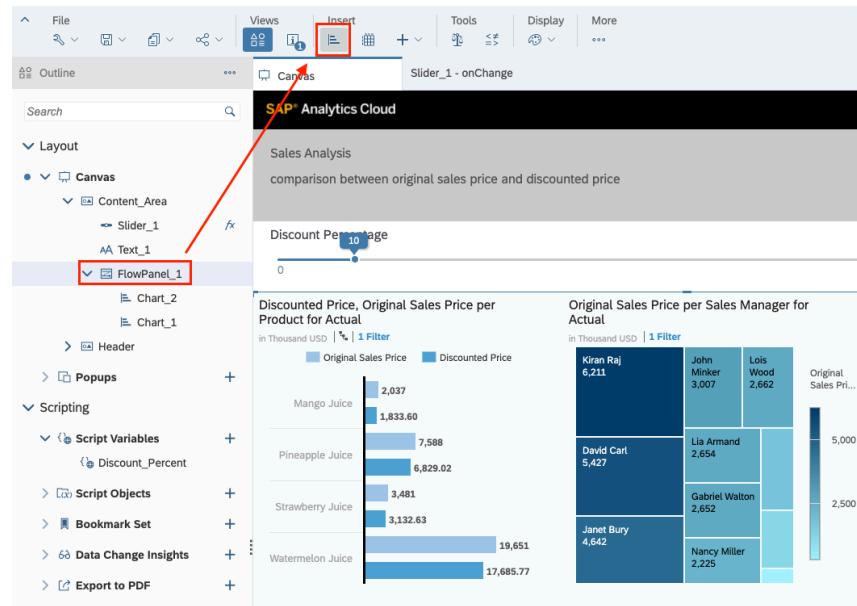
20. Add **Original Sales Price** as a Measure



21. Add **Sales Manager** as a Dimension
22. Add the same filter as the previous chart.
(Steps: 15/16/17)

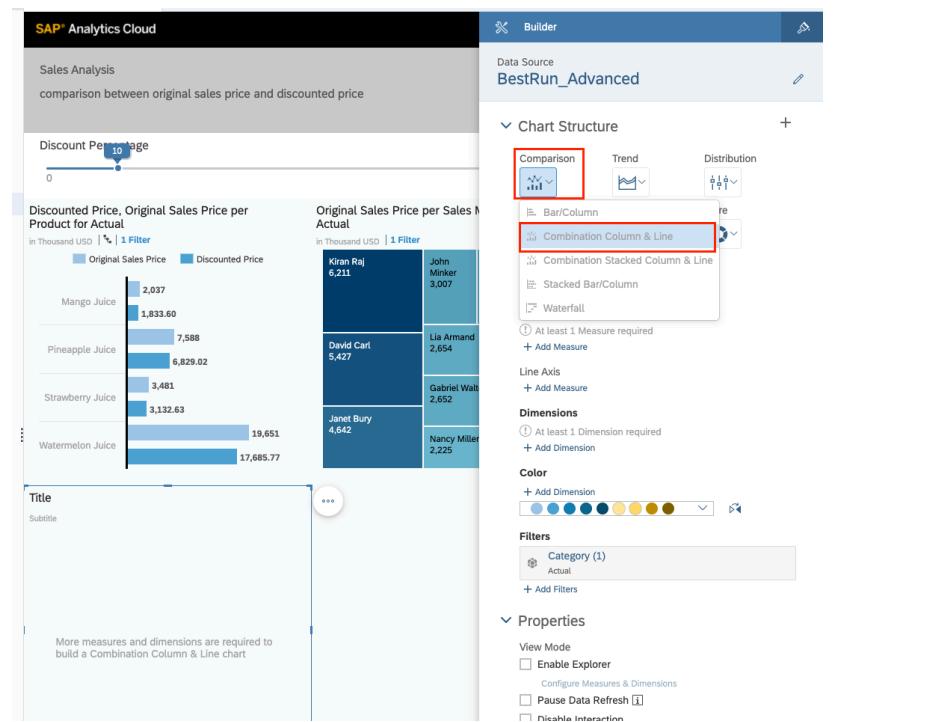
23. Let's add another type of chart a **Combination Column & Line**. Click on the icon **Chart** in order to add another chart widget.

Don't forget to select always the **FlowPanel_1** from the outline before adding the widget.



24. Toggle to the **Builder** panel in order to modify the default **Chart Structure** to **Combination Column & Line**.

Under Chart Structure → Comparison → Combination Column & Line

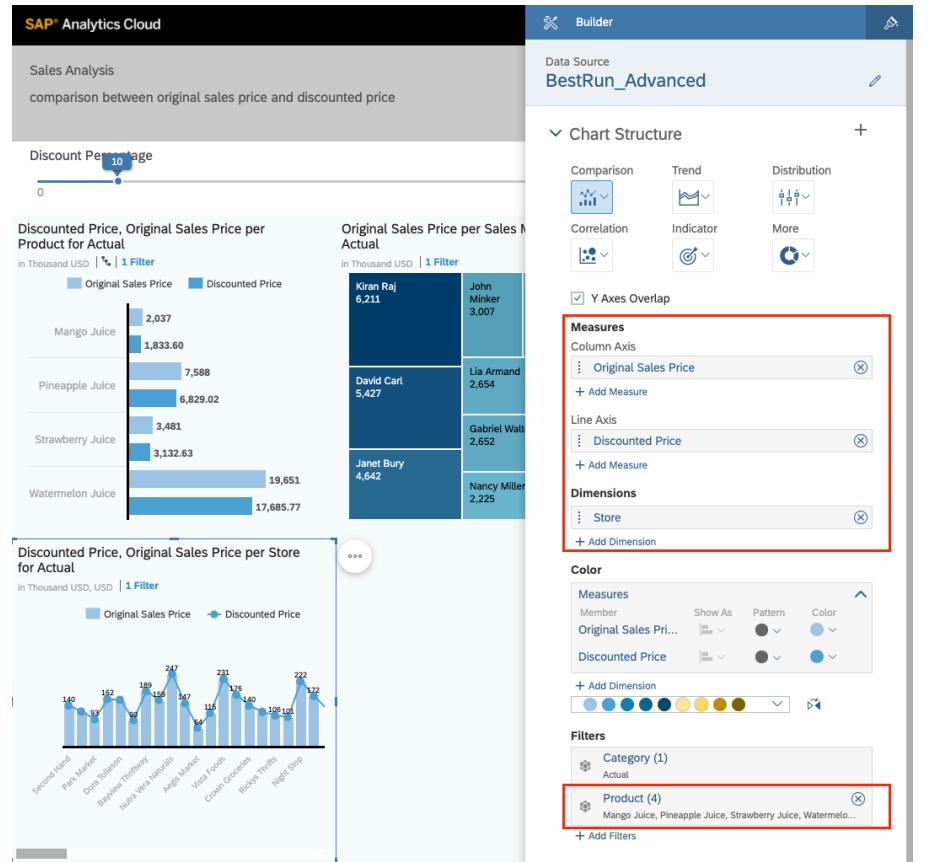


25. Add **Original Sales Price** as a Measure (Column Axis)

26. Add **Discount Price** as a Calculated Measure (Line Axis)

27. Add **Store** as a Dimension

28. Add the same filter as the previous chart. (Steps: 15/16/17)

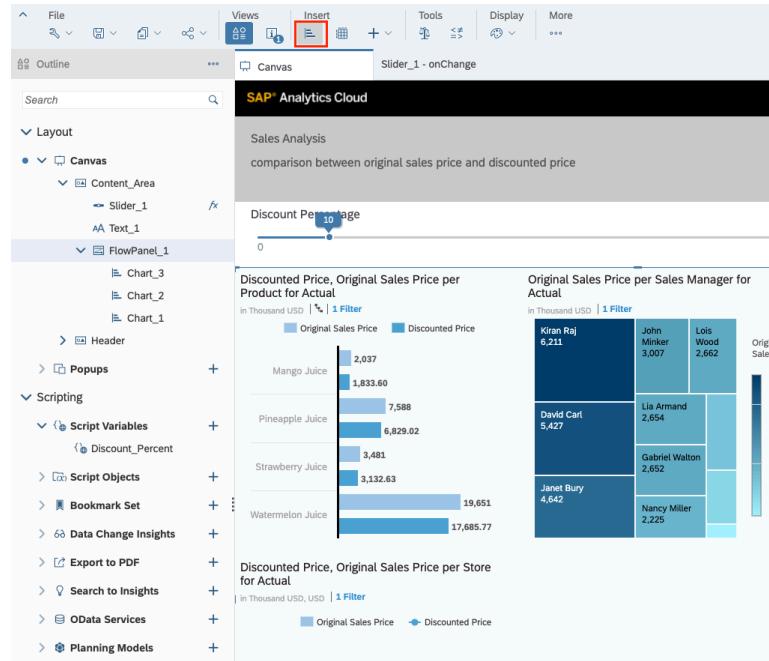


29. Let's add another type of chart a **Stacked Bar/Column**. Click on the icon **Chart** in order to add another chart widget.

Don't forget to select always the **FlowPanel_1** from the outline before adding the widget.

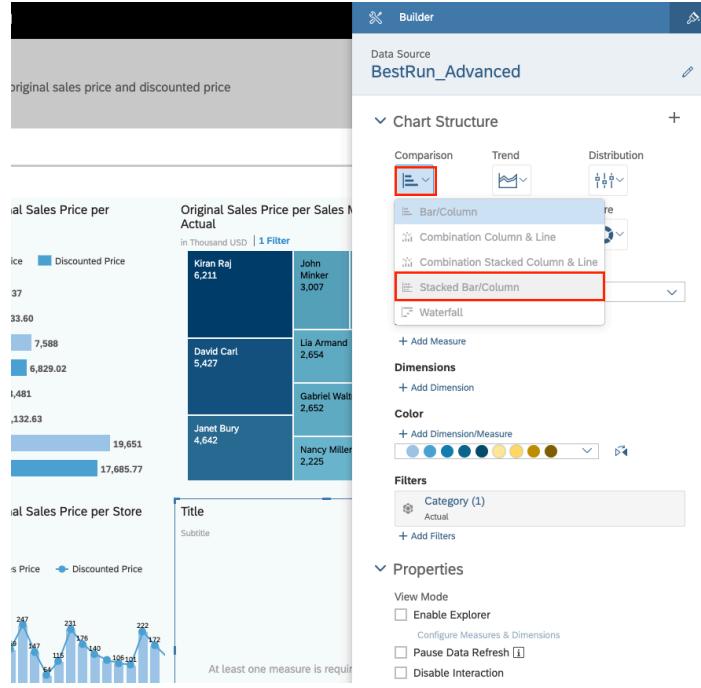
30. Keep the default layout configurations for the chart widget as the previous charts:

Width: 384 px
Height: 384 px



31. Toggle to the **Builder** panel in order to modify the default **Chart Structure** to **Stacked Bar/Column**.

32. Under **Chart Structure** → **Comparison** → **Stacked Bar/Column**.



33. Add **Original Sales Price** as the first Measure.

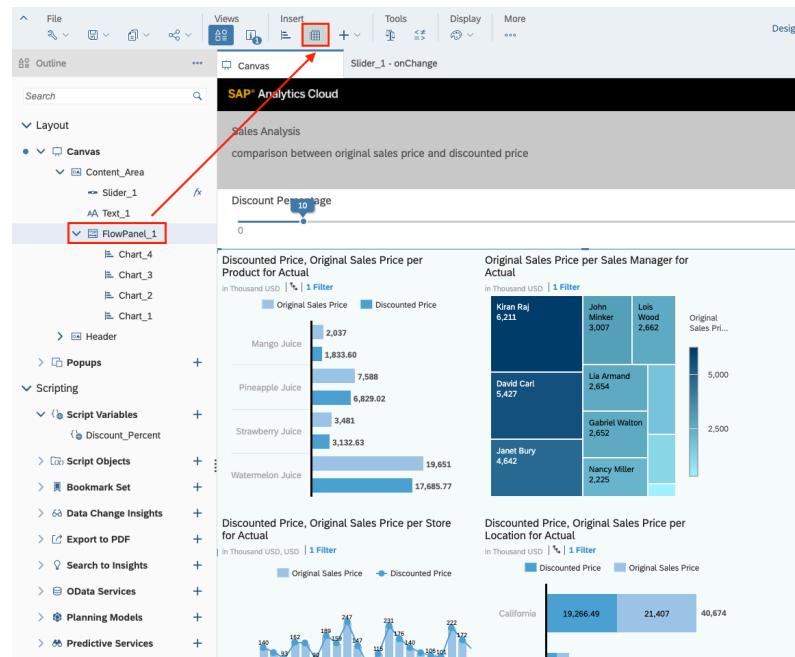
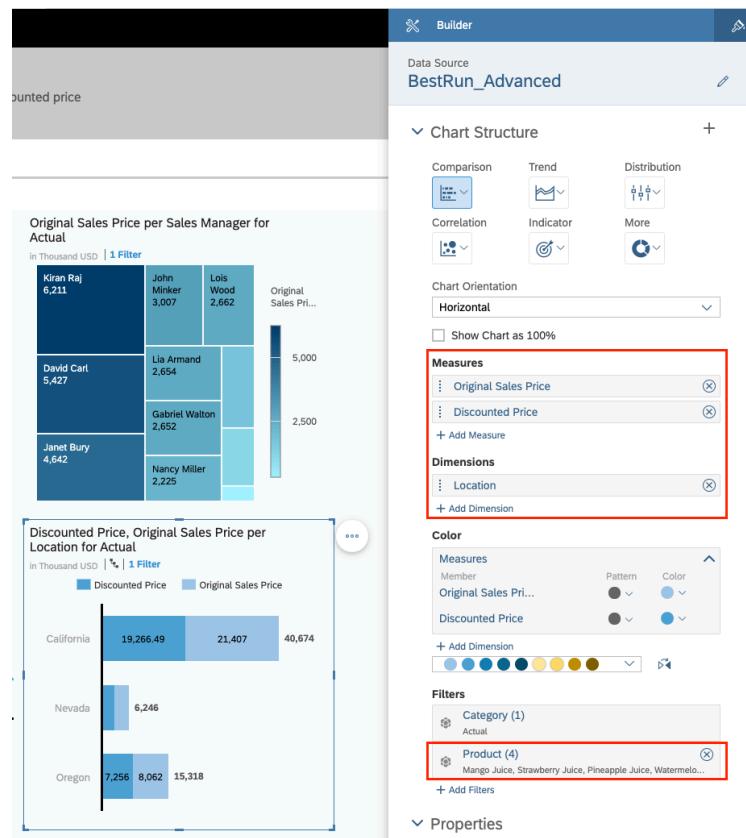
34. Add **Discount Price** as a Calculated Measure.

35. Add **Location** as a Dimension

36. Add the same filter as the previous chart.
(Steps: 15/16/17)

37. Let's add now a Table. Click on the icon **Table** under the insert toolbar.

Don't forget to select always the **FlowPanel_1** from the outline before adding the widget.



38. Toggle to the **Styling** panel to set some properties for the Table.

39. Define the layout configurations for the **Table** widget:

Width: 750 px
Height: 368 px

40. Switch to **Builder Panel**, we are going to add measure(s) and dimension(s) to this table

41. Let's start by adding a dimension to our Table

The screenshot shows the Tableau Builder interface. On the left, there is a dashboard with a heatmap titled "Original Sales Price per Sales Manager for Actual". The heatmap shows sales prices in Thousand USD for various managers. On the right, the "Builder" sidebar is open, showing the "Table Structure" section. Under "Rows", there is a button "+ Add Measures/Dimensions" which is highlighted with a red box. Other options in "Rows" include "Responsive / flexible column width", "Arrange totals / parent nodes below", and "Beta table". Under "Columns", there is a section for "Account" with "1 Model Members" and "1 Story Calculations". There is also a "+ Add Measures/Dimensions" button here. Under "Filters", there are two filters: "Account (2)" and "Category (1)". At the bottom of the sidebar, there are "Properties" settings for "View Mode" and "Enable Explorer".

42. Select **Product** as a dimension.

This screenshot is similar to the previous one, showing the Tableau Builder interface with a dashboard containing a heatmap titled "Original Sales Price per Sales Manager for Actual". The sidebar on the right shows the "Table Structure" section. In the "Dimensions" section of the sidebar, the "Product" checkbox is selected and highlighted with a red box. Other dimensions listed include Account, Category, Currency, Location, Sales Manager, Store, Time, and Version. There are also buttons for "Create Calculated Dimension" and "Pause Data Refresh".

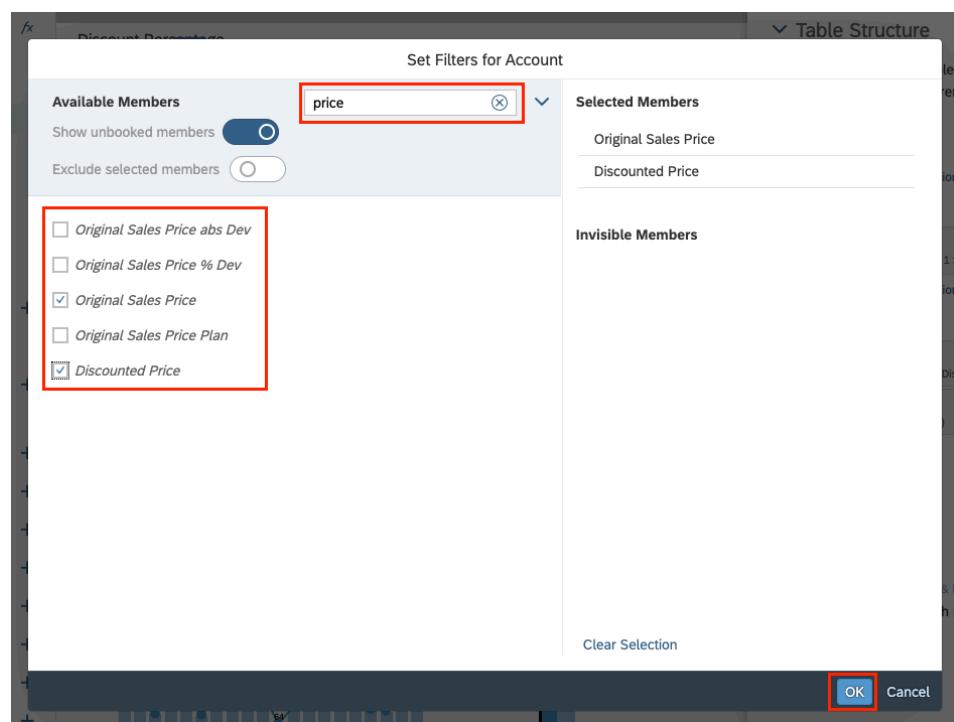
43. Let's manage the **Columns** of the table by clicking the **filter icon** in order to select the proper Members and calculation.

The screenshot shows the Tableau Builder interface with a data source named 'BestRun_Advanced'. In the 'Table Structure' pane, under 'Columns', there is a dropdown menu for 'Account' set to '1 Model Members'. This dropdown is highlighted with a red box. Below it, there is a 'Filters' section containing two items: 'Account (2)' and 'Category (1)'. The 'Account (2)' item is expanded to show 'Original Sales Price, Discounted Price'. The 'Category (1)' item is expanded to show 'public.Actual (Actual)'. There is also a '+ Add Filters' button.

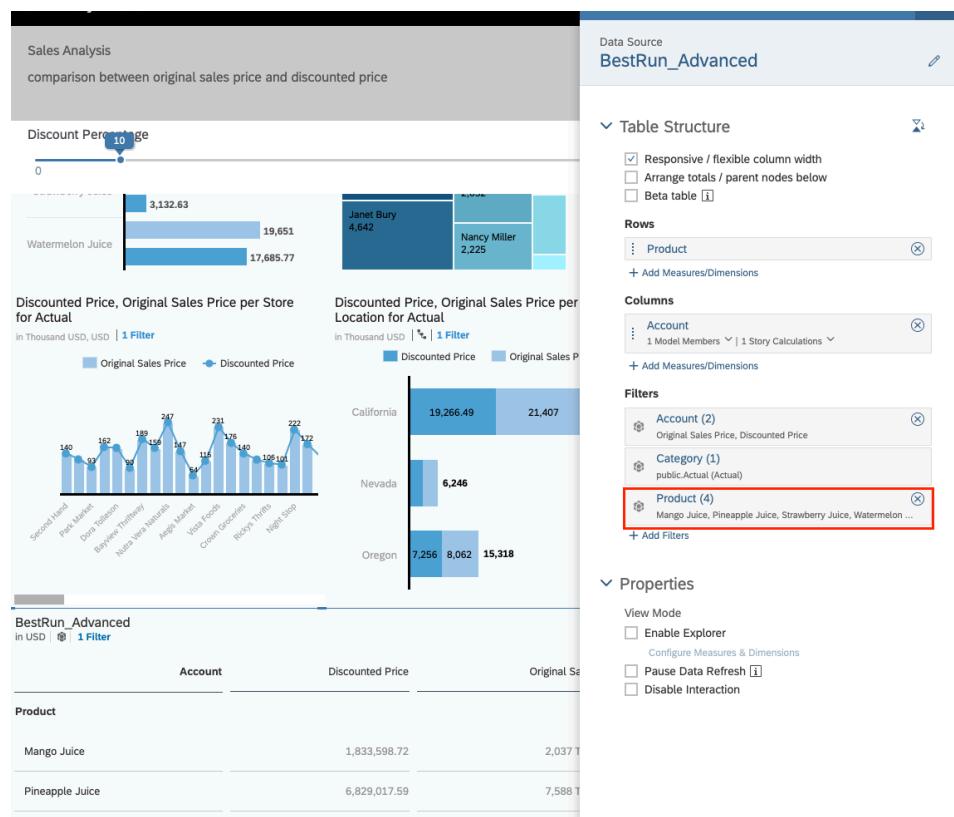
44. First of all, delete the default selected member.

The screenshot shows the 'Set Filters for Account' dialog box. On the left, under 'Available Members', there is a list of various members including 'All Members', 'Discount abs Dev' (which is checked), 'Discount % Dev', 'Discount', 'Discount Plan', etc. On the right, under 'Selected Members', 'Discount abs Dev' is listed with a delete icon (highlighted with a red box). At the bottom right of the dialog box are 'OK' and 'Cancel' buttons.

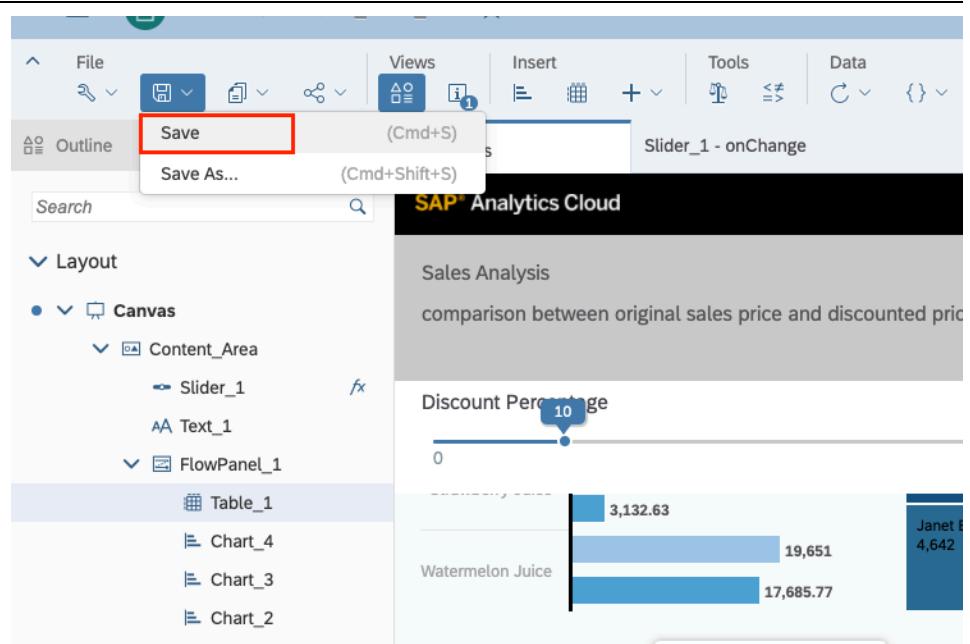
45. Use the **search bar** to search for the **Original Sales Price** and **Discounted Price**, then click **OK** to confirm.



46. Add the same filter as the previous Charts to the Table.
Check steps 15/16/17

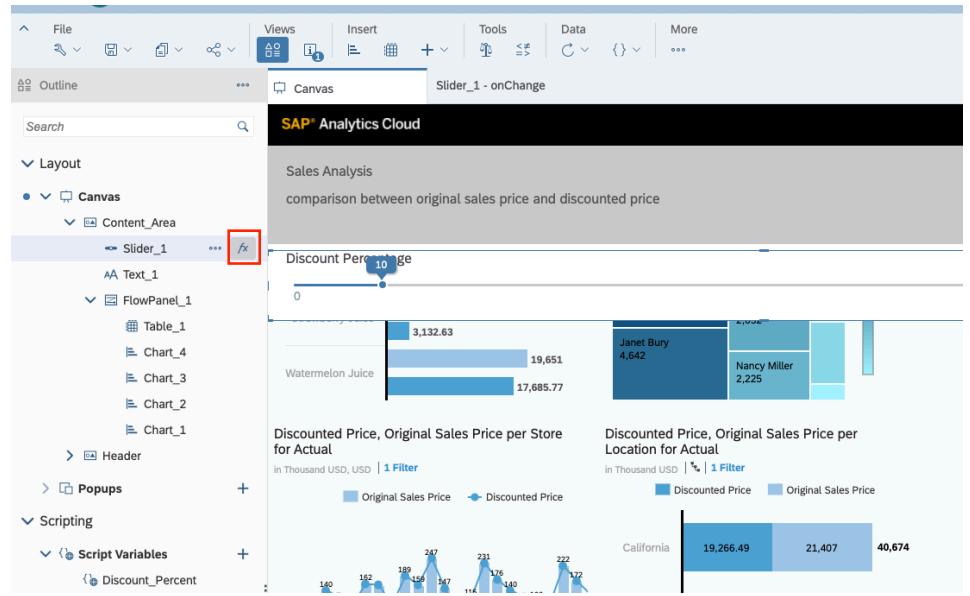


47. Click on the **Floppy Disc** icon and choose **Save**.

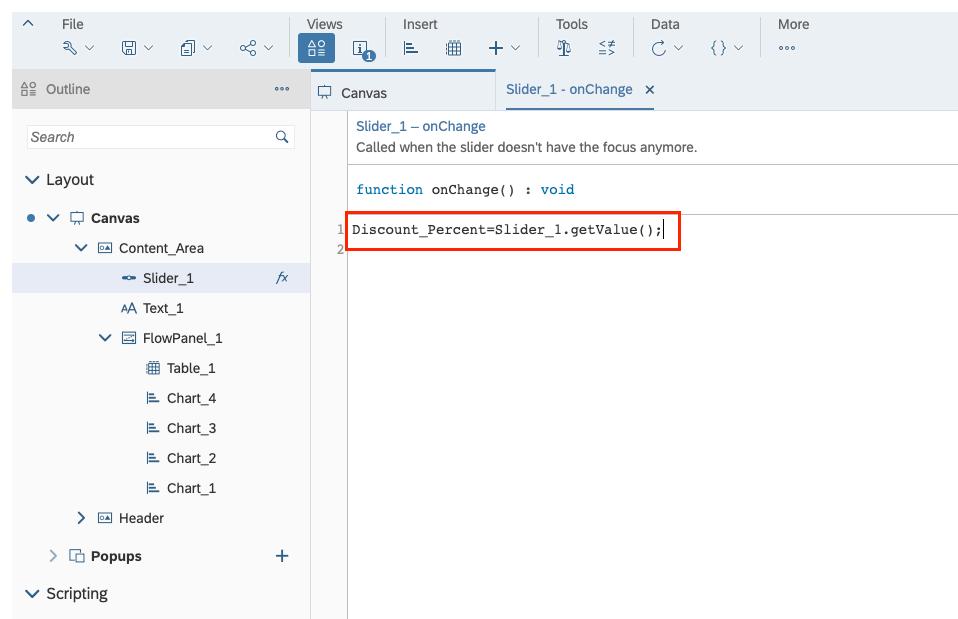


48. As next, let's define the **onChange** event for the Slider widget that we defined in the beginning of the exercise.

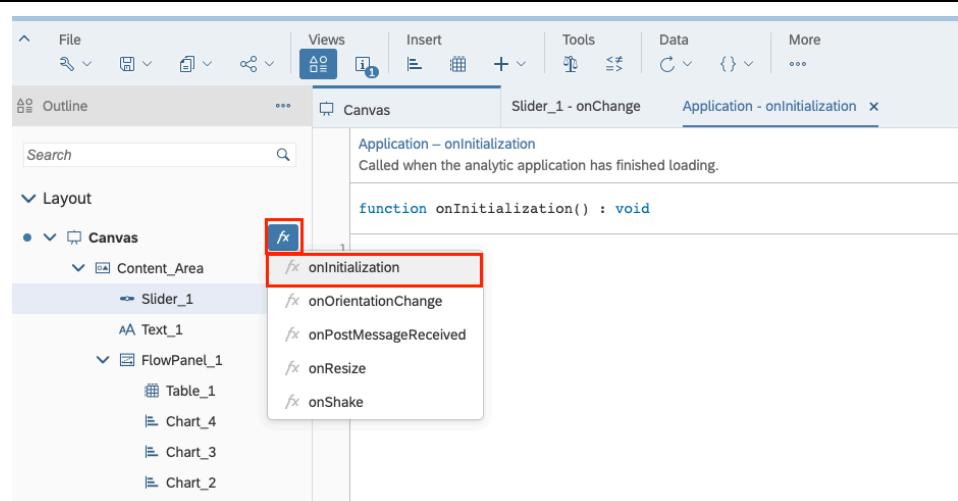
Please position on the **Slider_1** and click on the **fx** icon.



49. You can see that a Tab **Slider_1.onChange** is open next to the Canvas Tab. Within this Tab we will add the Script. The coding should cover the following logic:
Assign the value of the current selection of the slider to script variable **Discount_Percent**. You can use the scripting wizard to write the command or you can copy and paste this line of code:
- ```
Discount_Percent=Slider_1.getValue();
```

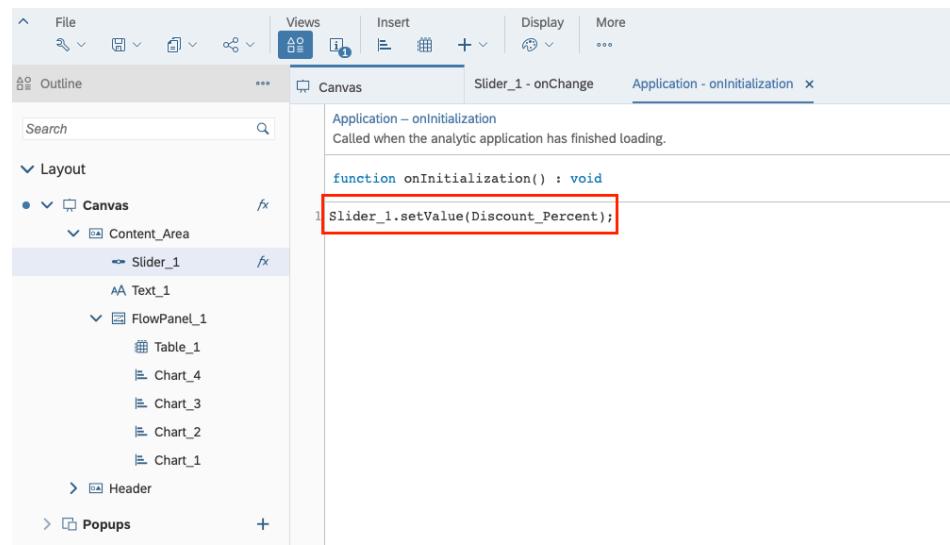


50. The last step is tracking what happens when the application is initialized. This is done through the **onInitialization** function of the Canvas itself. To write the responsible script, please hover over the **Canvas** in the layout outline panel and click on the **fx** icon, then select **onInitialization**.

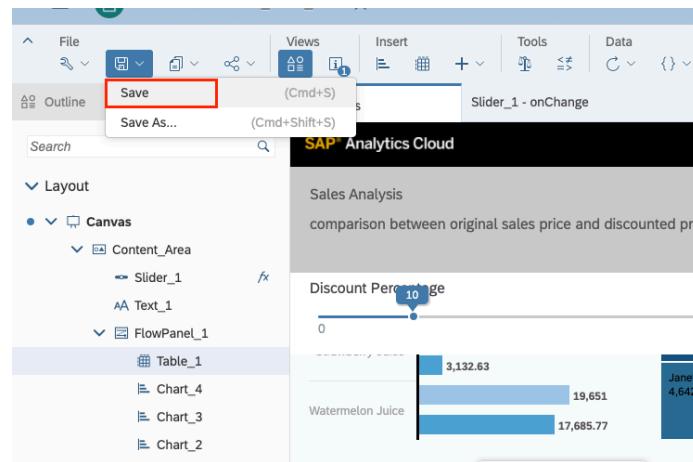


51. Now we need to define the script to set the variable value in the slider.

Enter the code below:  
**Slider\_1.setValue(Discount\_Percent);**

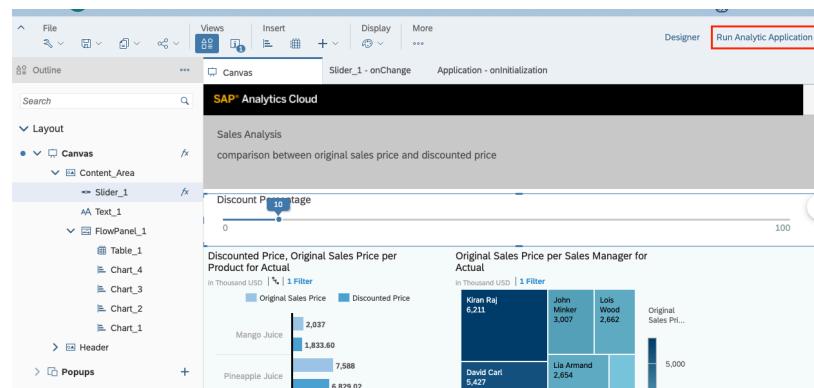


52. Click on the Floppy Disc icon and choose Save.



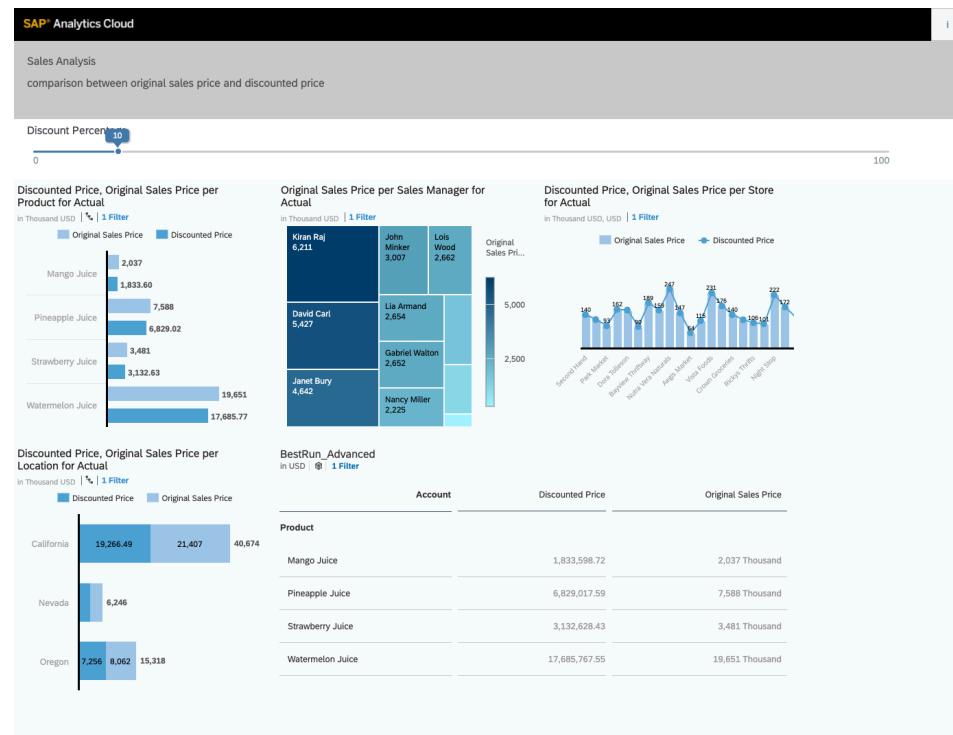
53. It's time to show how this application is working at runtime.

For that please click Run Analytical Application.

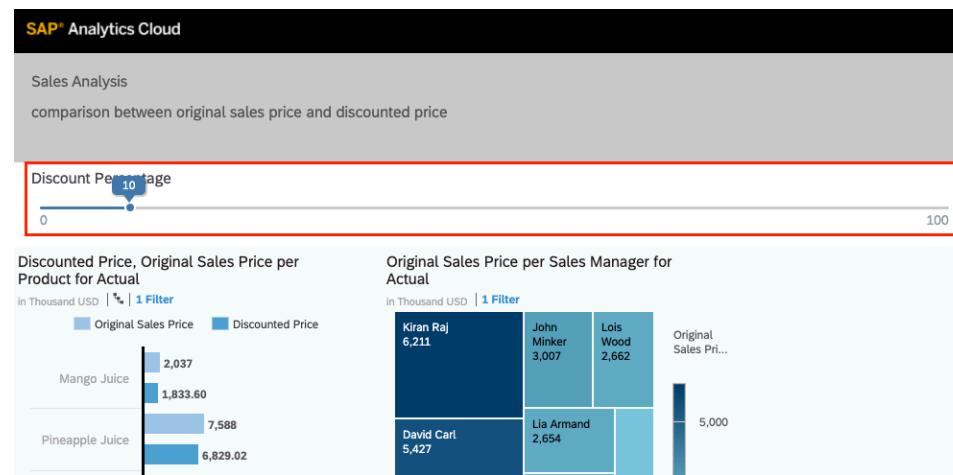


54. As you can see, you built an Analytical application which composed of different widgets (different type of Charts/ Table/ Slider) within a responsive frame which is the Flow Panel feature.

Try to reduce the size of your browser in order to see how the Flow Panel that we used will behave.



55. As next, please change the value in the Slider and check the charts and table behaviors.

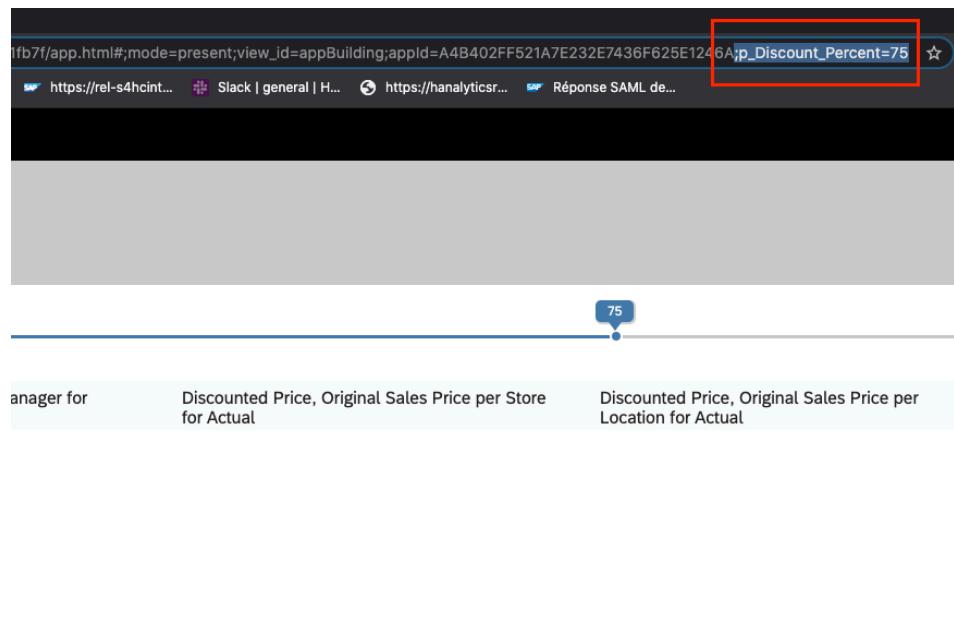


56. You can try to enter at the end of the URL:

`:p_Discount_Percent=75`

In the definition of the script variable, we selected the option **Expose Variable via URL Parameter**. This make possible to set the variable value via URL. In the URL of the analytic application, just enter a new parameter that starts with “`p_`” and is followed by the script variable's name:

`:p_Discount_Percent=75`



### Congratulations! You just finished the part 2 of Exercise 1.

Theme provides application designer an efficient and reusable way to define the style of the application. When you choose a theme, you change the app's look and feel instantly.  
In the **Part 3** of the exercise, we will show you how to use a theme.

## Part 3: Changing Theme

1. Go back to the application and click on the **Themes** icon

SAP® Analytics Cloud

Sales Analysis  
comparison between original sales price and discounted price

Discount Percentage: 10

Original Sales Actual  
in Thousand USD | 1 Filter

Mango Juice: Original Sales Price 2,037, Discounted Price 1,833.60

Kiran Raj 6,211

2. Choose **Browse for More Themes ...**

SAP® Analytics Cloud

Sales Analysis  
comparison between original s

Discount Percentage: 10

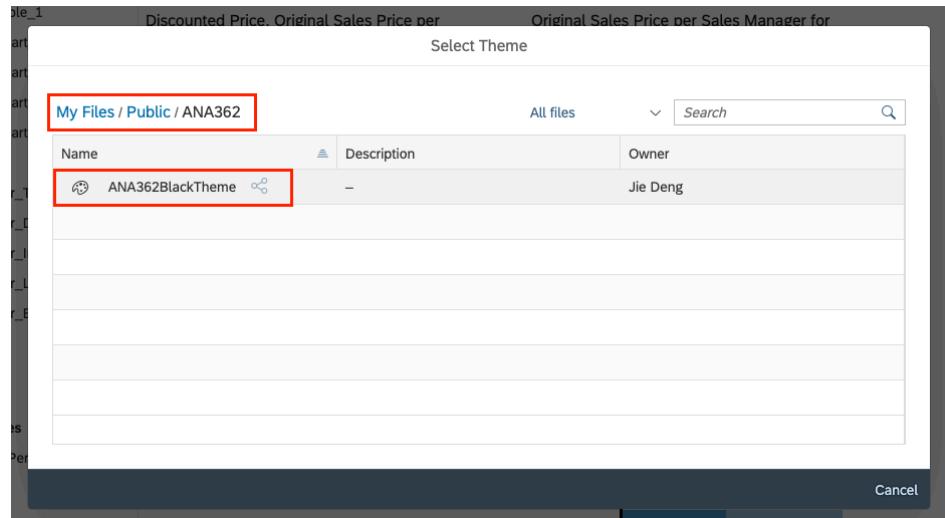
Original Sales Actual  
in Thousand USD | 1 Filter

Mango Juice: Original Sales Price 2,037, Discounted Price 1,833.60

Kiran Raj 6,211

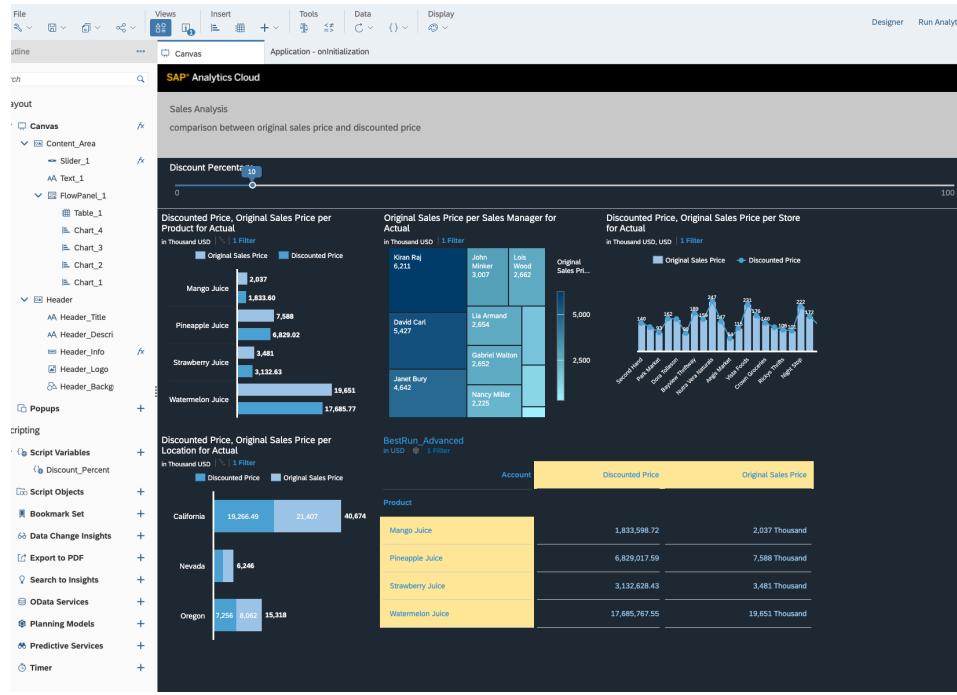
**Browse for More Themes...**

3. Redirect to the folder **My Files → Public → ANA362**, then choose the theme **ANA362BlackTheme**

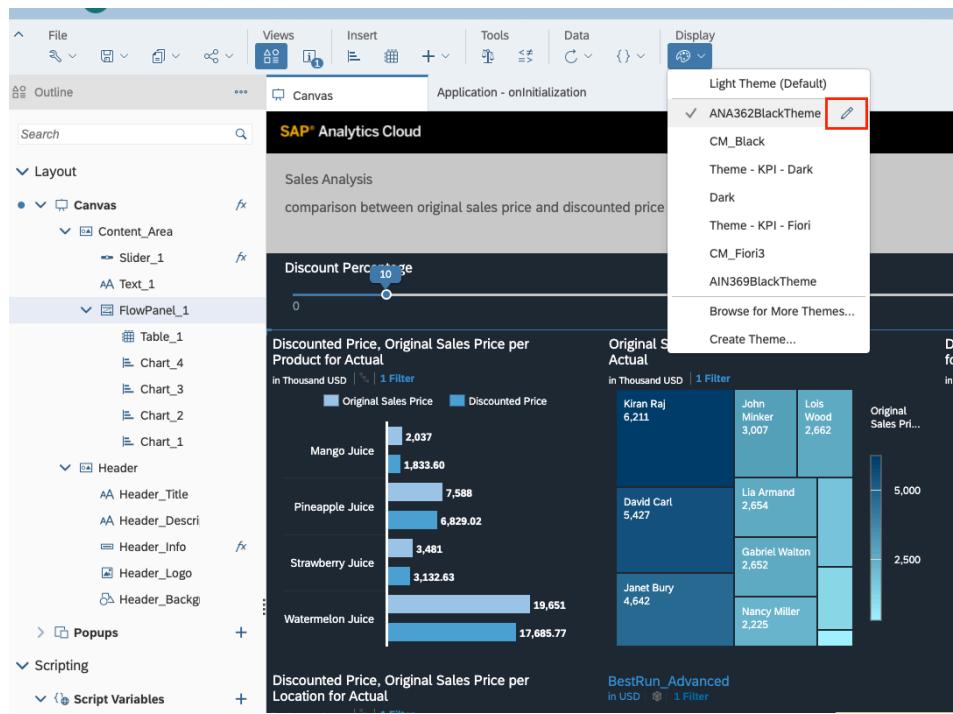


4. You can see now that the Theme changed.

As next we will show which themes preferences can be changed

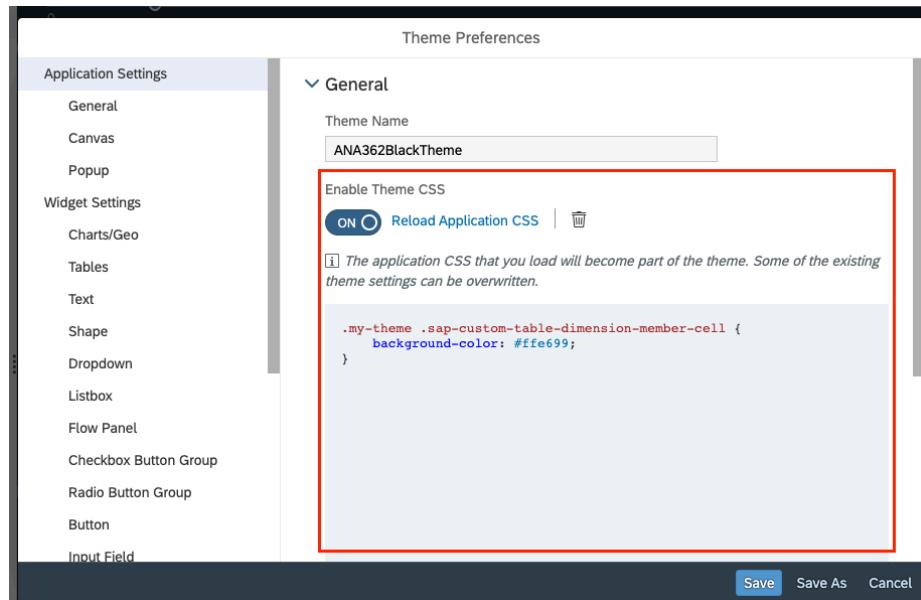


5. Hover over the active theme **ANA362BlackTheme** and click on the **Pencil** icon

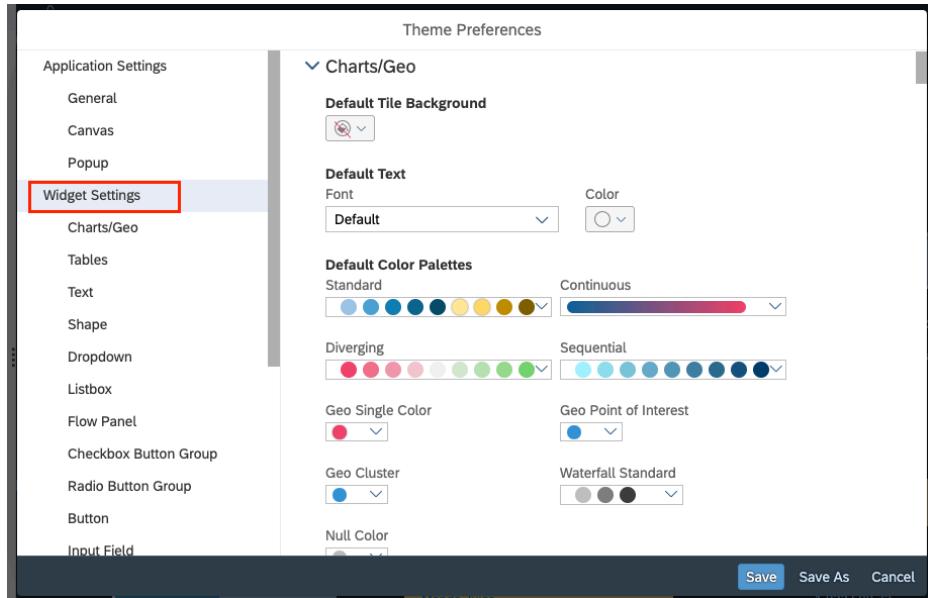


6. As you can see, the **CSS script** used for this theme. With **Analytical Application** you have the possibility to write and load your specific **CSS script**.

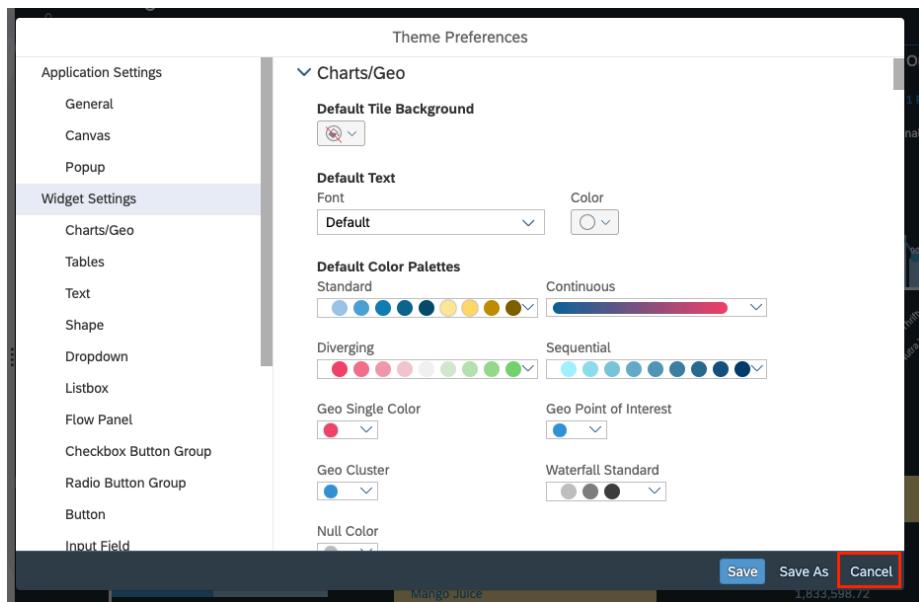
You can as well explore the different options available; you can change the **Theme Preferences** of any **widgets** available on your application.



7. For example, choose **Widget Settings** in order to see the different **Theme Preferences**.

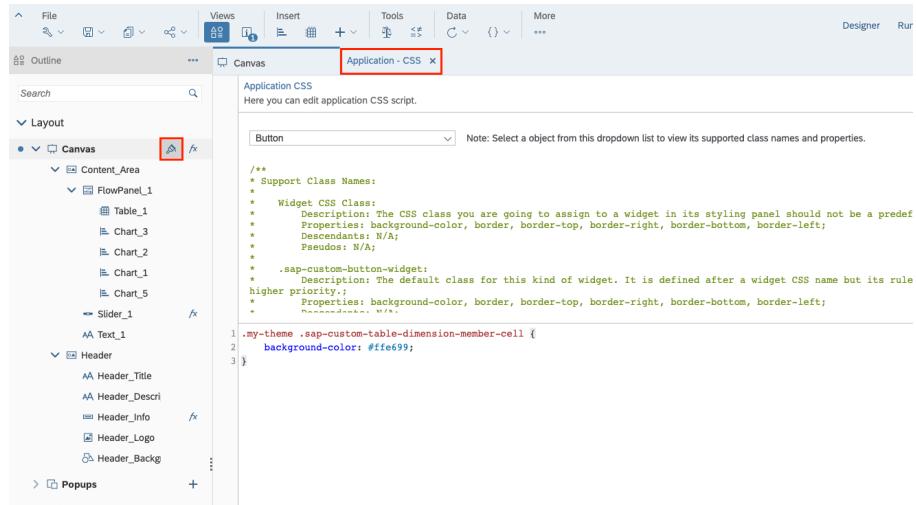


8. Click **Cancel** to exit the Theme Preferences pop up

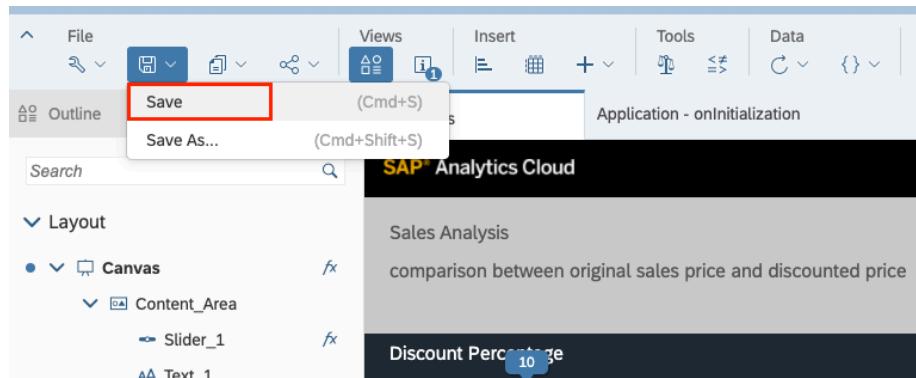


9. By hover over the **Canvas** from the **outline** panel you can click the **styling icon** in order to edit the **application CSS** code.

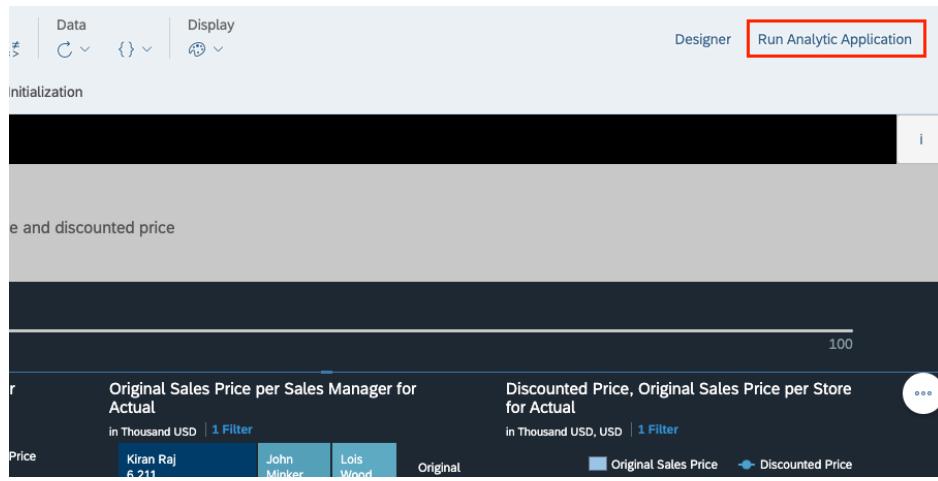
As shown a new tab called **Application-CSS** appeared where you can start editing the **CSS code** based on the supported Class Name.



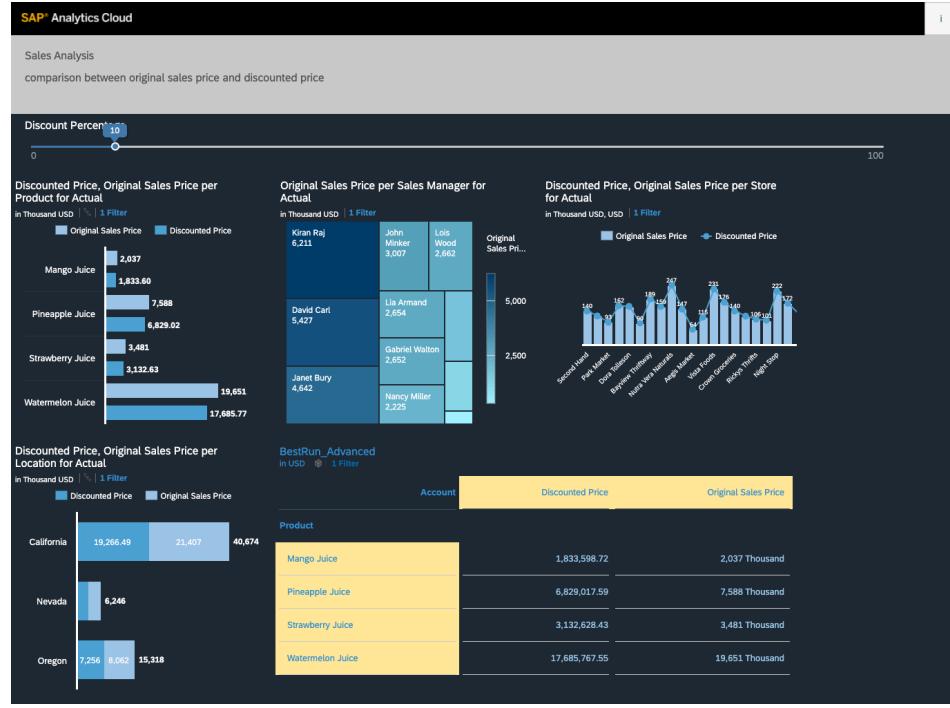
10. Click on the **Floppy Disc** icon and select **Save**.



11. Click **Run Analytic Application** to see how the new selected theme look like in the runtime.



12. Congratulations! You added the theme successfully.



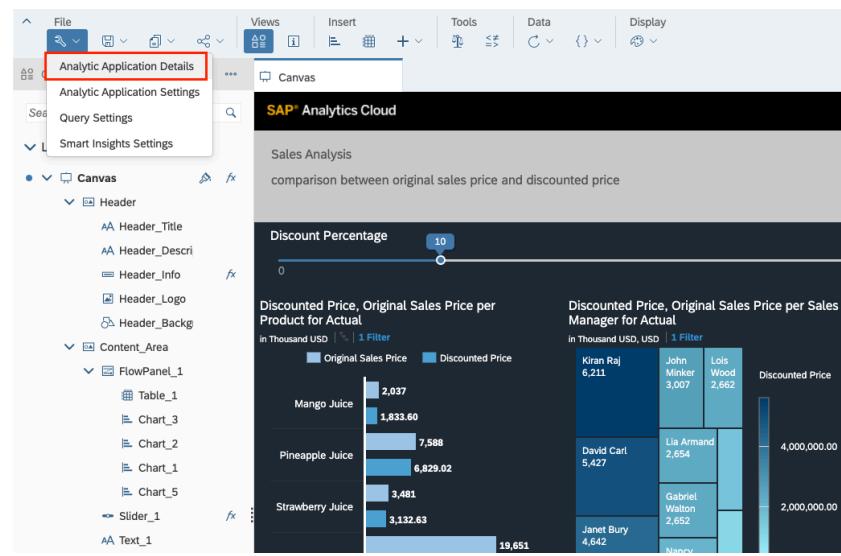
**Congratulations! You just finished the part 3 of Exercise 1.**

In the **Part 4** of the exercise you will download the SAC mobile app from Apple Store and run it with your Device.

## Part 4: Download SAC app from Apple Store and run the application

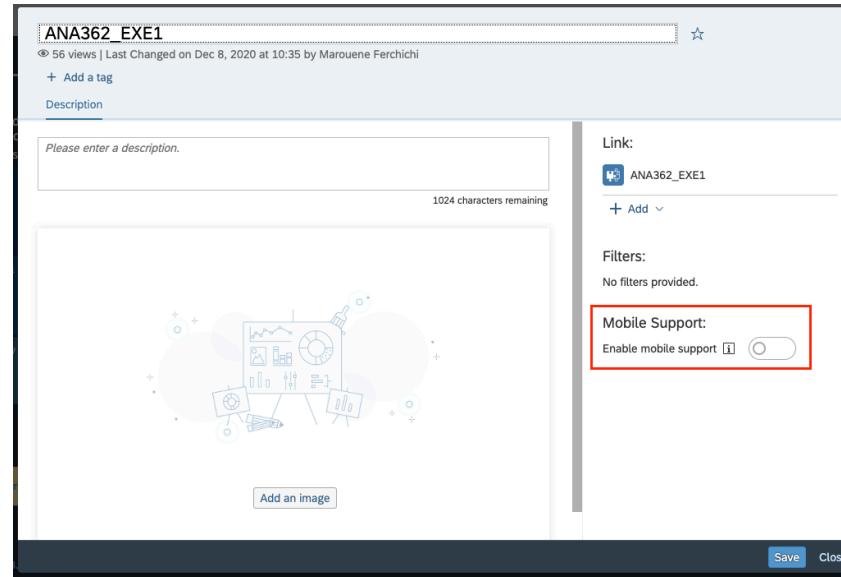
- Before downloading the SAC app, let's set the ANA362\_EXE1 as mobile enabled.

- Under the setting icon, click **Analytical Application Details**

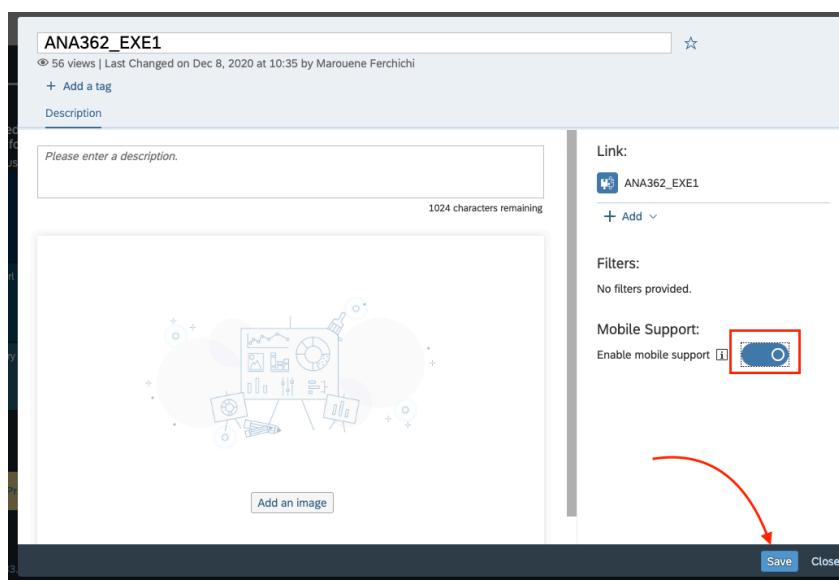


- As shown the Mobile support option is **disabled**.

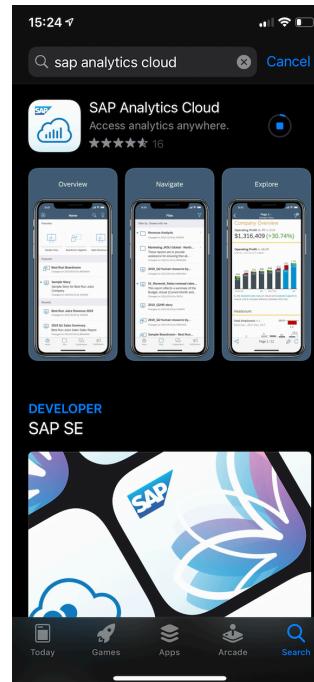
- Please **enable** the mobile support



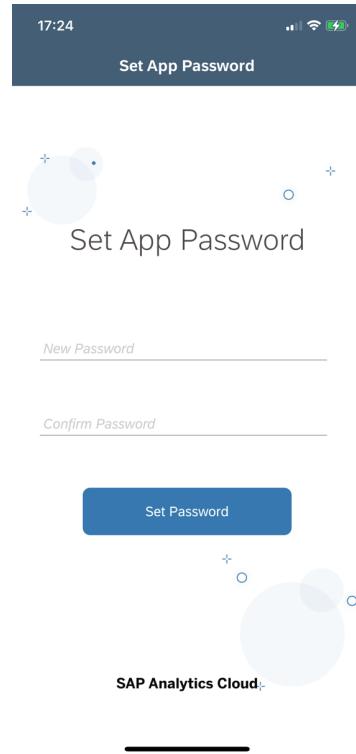
5. After the **enable** the Mobile support, click **Save**.



6. Now let's test the application with your mobile device.  
7. Open the Apple Store and search for the SAC app and press Download, the same as you will download another app with your phone.



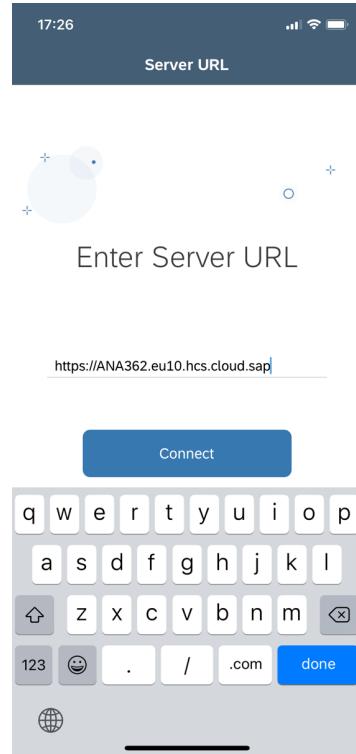
- 
8. As next, open the app and create a **Password** for the app



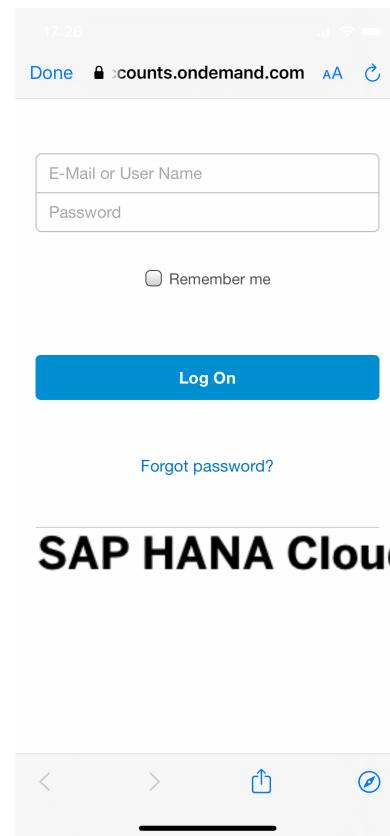
- 
9. Next step you have to enter the **Server URL**:

<https://ANA362.eu10.hcs.cloud.sap>

Press **Connect** afterwards.



- 
10. Use your Credential to connect to the tenant in order to find your application and run it on your Mobile.



- 
11. Redirect to your files and select the application in order to run it in the mobile device.



**Congratulations! You just finished the part 4 of Exercise 1.**

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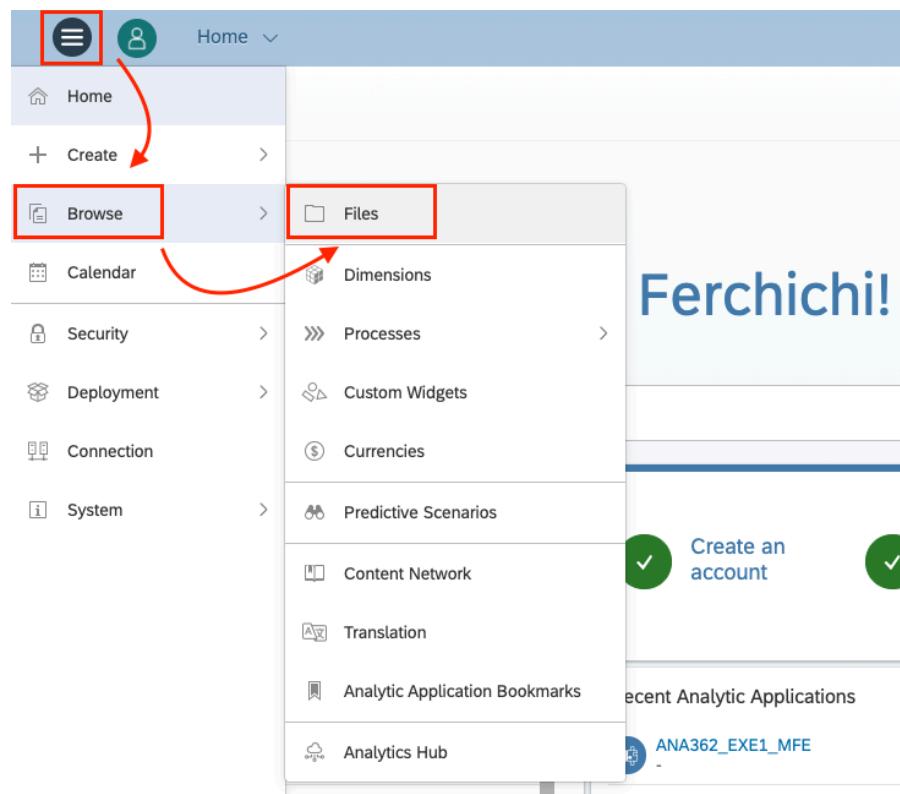
In the **Part 5** of the exercise you will use the Post Message capability of the SAC to embed your analytical application into a HTML Page.

---

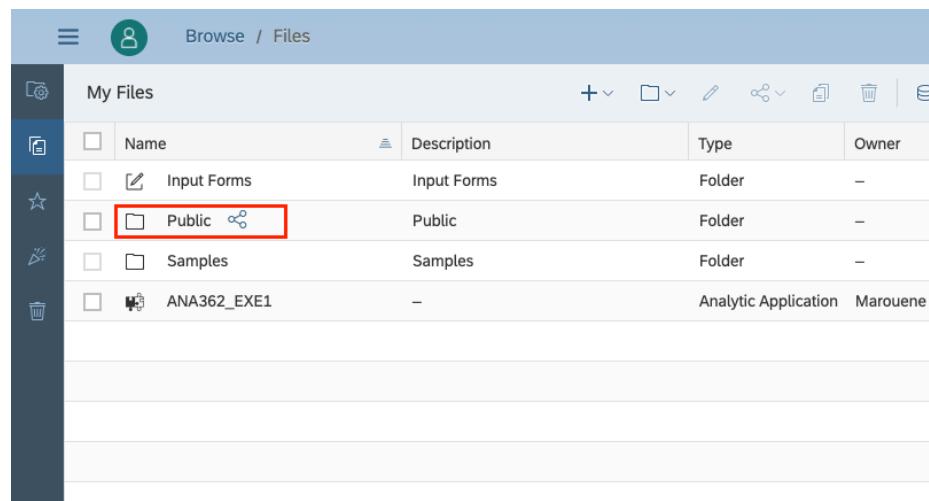
## Part 5: Embedding into a HTML page

- Let's open the ANA362 to download our TXT file that we will modify and use for this part of the exercise.

Click **File**

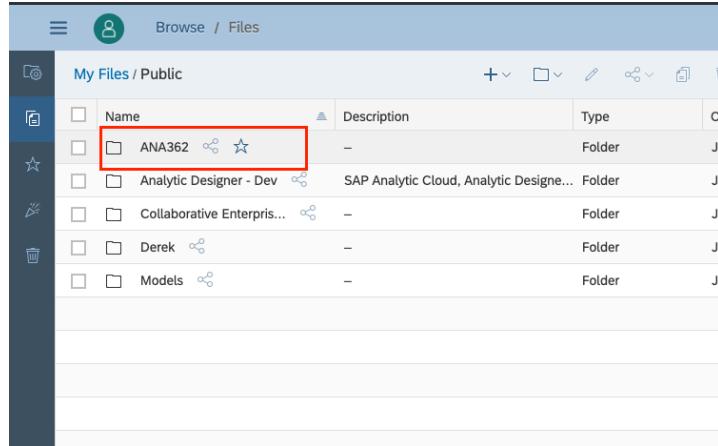


- Then open the Folder **Public**

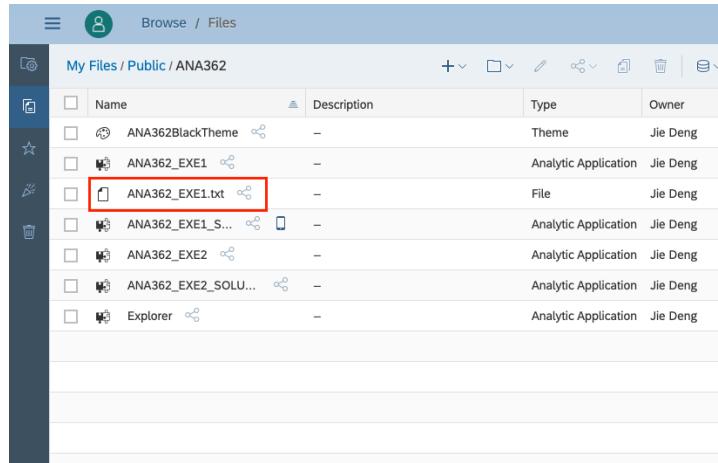


## ANA362

3. Click the folder **ANA362** to open it.

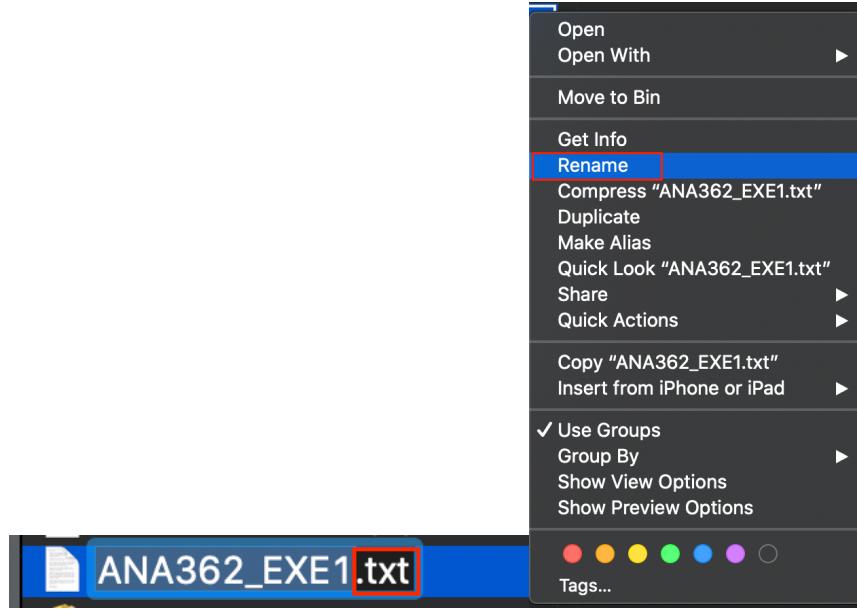


4. Just Click the **ANA362\_EXE1.txt** to download the Text file.

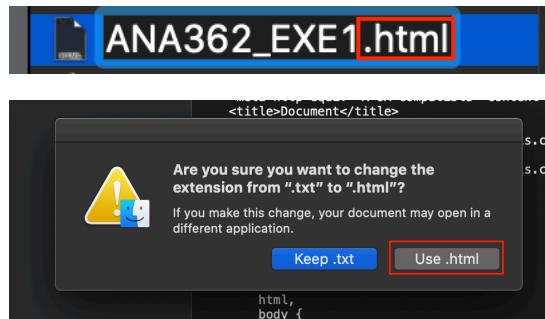


5. As next, when the download is finish, open the folder where the file was downloaded and change the extension from: **.txt** to **.html**

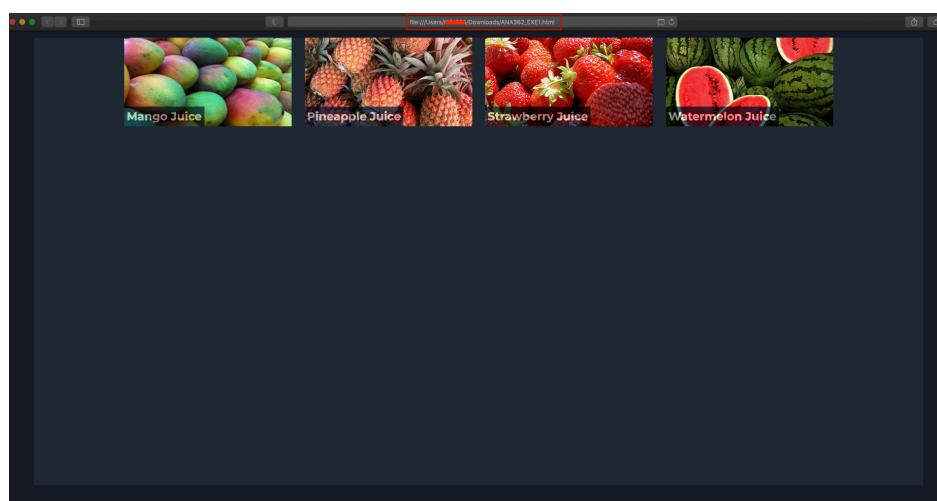
6. Right Click on the file and select **Rename**



7. Delete .txt and replace it by .html



8. Afterwards Double Click on the **HTML** file in order to open it with your browser.



9. Here is a HTML page. We should now integrate the analytic application created before into this HTML page.

**There are bi-directional integrations:**

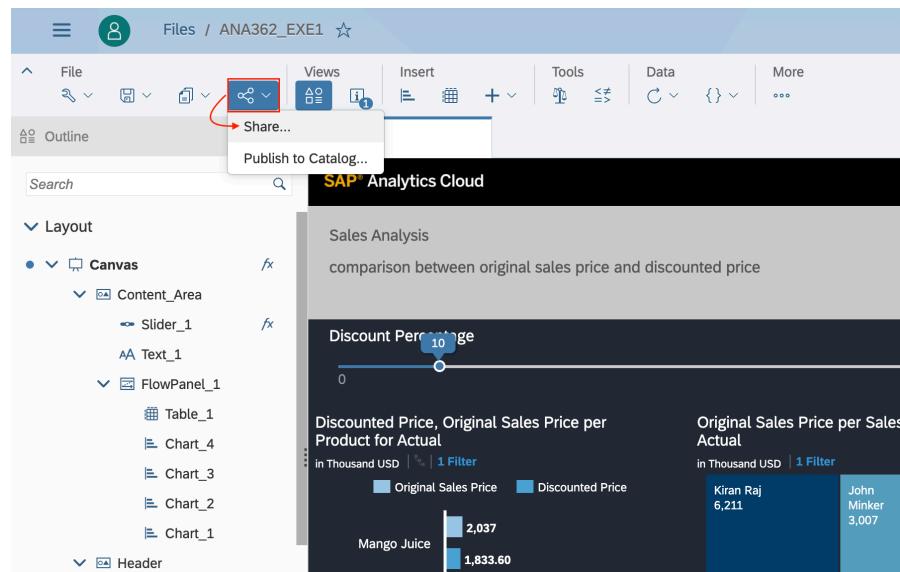
- 1) If user selects the juice type on the html page, this information should be used for filtering the charts in analytical applications
- 2) If user changes the discount percentage value by slider in analytical application, then this parameter should be transferred to html page for calculating the discounted price

**For these interactions, you need to do the following steps:**

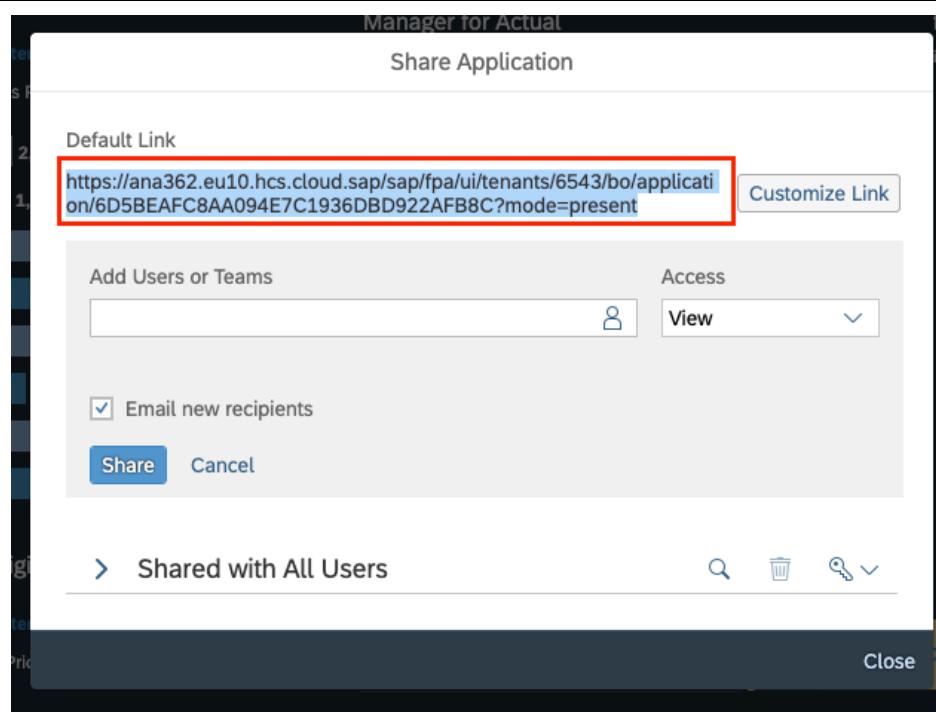
- 1) adapt the application name in html page
- 2) add the PostMessageReceived event in the analytical application
- 3) add the post message API to On Click event for the Slider (pass the parameter discount percentage to html page)
- 4) add the post message API to OnInitialization event (pass the original sales price to html page)

10. Go back to your SAP Analytics Cloud application.

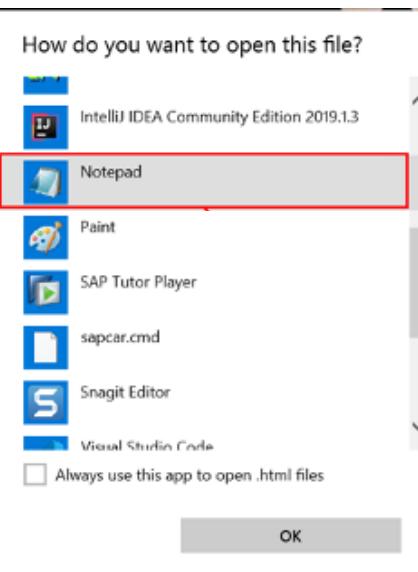
Click **Share** to get the application URL



11. Copy the application ID of your application  
**ANA362\_EXE1**



12. As next, go back to the **HTML** file and right click on: **ANA362.html**



13. Click on “**Open With**” and select **Notepad** or another file editor that you have.

14. Please scroll down until you find the default **URL**.

15. Delete the existing one and replace it with your **URL** that you copied in **STEP 10**, press **CTRL + V** and **CTRL + S** to save the changes.

16. As next, copy the tenant path:  
<https://ana362.eu10.hcs.cloud.sap> from the Application ID that you used in **Step 14**

```

<!-->
<figure id="watermelon">

 <figcaption>
 <h3>Watermelon Juice</h3>
 </figcaption>

</figure>
</div>
<iframe style="width: 1440px; height: 1120px;" src="https://ana362.eu10.hcs.cloud.sap/sap/fpa/ui/tenants/6543/bo/application/A4BD4AFF4A4D60DB6F7C3DE7AD3C69A3?mode=present"></iframe>
<script>
 document.addEventListener("readystatechange", (ev) => {
 if (document.readyState === "interactive") {
 addClickHandler();
 }
 });

```

```


</div>
<iframe style="width: 1440px; height: 1120px;" src="https://ana362.eu10.hcs.cloud.sap/sap/fpa/ui/tenants/6543/bo/application/6D5BEAFC8AA094E7C1936DBD922AFB8C?mode=present"></iframe>
<script>
 document.addEventListener("readystatechange", (ev) => {
 if (document.readyState === "interactive") {
 addClickHandler();
 }
 });

```

17. Paste the tenant path in the place of the 'XXXXXXXXXXXX'

```
</div>
<iframe style="width: 1440px; height: 1120px;"
src="https://ana362.eu10.hcs.cloud.sap/sap/fpa/ui/tenants/6543/bo/application/6D5BEAFC8AA094E7C1936DBD922AFB8C?mode=p
</div>

<script>
document.addEventListener("readystatechange", (ev) => {
 if (document.readyState === "interactive") {
 addClickHandler();
 }
});

function addClickHandler() {
 document.querySelector("#mango").addEventListener("click", () => {
 window.frames[0].postMessage('mango', 'XXXXXXXXXXXXXX');
 });
 document.querySelector("#pineapple").addEventListener("click", () => {
 window.frames[0].postMessage('pineapple', 'XXXXXXXXXXXXXX');
 });
 document.querySelector("#strawberry").addEventListener("click", () => {
 window.frames[0].postMessage('strawberry', 'XXXXXXXXXXXXXX');
 });
 document.querySelector("#watermelon").addEventListener("click", () => {
 window.frames[0].postMessage('watermelon', 'XXXXXXXXXXXXXX');
 });

 window.addEventListener("message", e => {
 // ...
 });
}
```

18. Your file should look like that after your paste the tenant path

```
if (document.readyState === "interactive") {
 addClickHandler();
}
});

function addClickHandler() {
 document.querySelector("#mango").addEventListener("click", () => {
 window.frames[0].postMessage('mango', 'https://ana362.eu10.hcs.cloud.sap');
 });
 document.querySelector("#pineapple").addEventListener("click", () => {
 window.frames[0].postMessage('pineapple', 'https://ana362.eu10.hcs.cloud.sap');
 });
 document.querySelector("#strawberry").addEventListener("click", () => {
 window.frames[0].postMessage('strawberry', 'https://ana362.eu10.hcs.cloud.sap');
 });
 document.querySelector("#watermelon").addEventListener("click", () => {
 window.frames[0].postMessage('watermelon', 'https://ana362.eu10.hcs.cloud.sap');
 });

 window.addEventListener("message", e => {
 if (e.data[0] !== "{}") return;
 });
}
```

19. Save the changes by pressing **CTRL + S**

20. Go back to your Analytical application  
**ANA362\_EXE1**

21. Open the **fx** of the **Canvas** in order to write some script

22. Select **OnPostMessageReceive** d event.

The screenshot shows the SAP Analytics Cloud interface with the 'Sales Analysis' dashboard open. In the canvas editor, a context menu is displayed over the 'onPostMessageReceived' event. The menu items include: comparison between original sales price and discounted price, onInitialization, onOrientationChange, onPostMessageReceived (highlighted with a red box), onResize, and onShake. The dashboard itself displays a bar chart comparing original and discounted sales prices for various juice products.

23. In this part, we are passing the message (mango, pineapple etc.) into the application to apply the product name as filter to chart.

Please enter (or copy & paste) the following scripting for the **onPostMessageReceivedEvent**:

```

if (message === "mango") {
 Chart_1.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD14]");
 Chart_2.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD14]");
 Chart_3.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD14]");
 Chart_4.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD14]");
 Table_1.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD14]");
}

if (message === "pineapple") {
 Chart_1.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD15]");
 Chart_2.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD15]");
 Chart_3.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD15]");
 Chart_4.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD15]");
 Table_1.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD15]");
}

if (message === "strawberry") {
 Chart_1.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD18]");
 Chart_2.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD18]");
 Chart_3.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD18]");
 Chart_4.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD18]");
 Table_1.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD18]");
}

if (message === "watermelon") {
 Chart_1.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD16]");
 Chart_2.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD16]");
 Chart_3.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD16]");
 Chart_4.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD16]");
 Table_1.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD16]");
}

```

```
function onPostMessageReceived(message: string, origin: string) : void
 if (message === "mango") {
 Chart_1.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD14]");
 Chart_2.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD14]");
 Chart_3.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD14]");
 Chart_4.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD14]");
 Table_1.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD14]");
 }
 if (message === "pineapple") {
 Chart_1.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD15]");
 Chart_2.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD15]");
 Chart_3.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD15]");
 Chart_4.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD15]");
 Table_1.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD15]");
 }
 if (message === "strawberry") {
 Chart_1.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD18]");
 Chart_2.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD18]");
 Chart_3.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD18]");
 Chart_4.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD18]");
 Table_1.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD18]");
 }
 if (message === "watermelon") {
 Chart_1.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD16]");
 Chart_2.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD16]");
 Chart_3.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD16]");
 Chart_4.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD16]");
 Table_1.getDataSource().setDimensionFilter("Product_3e315003an", "[Product_3e315003an].[ABC].&[PD16]");
 }
}
```

24. Let's also add some script on the **Slider**.

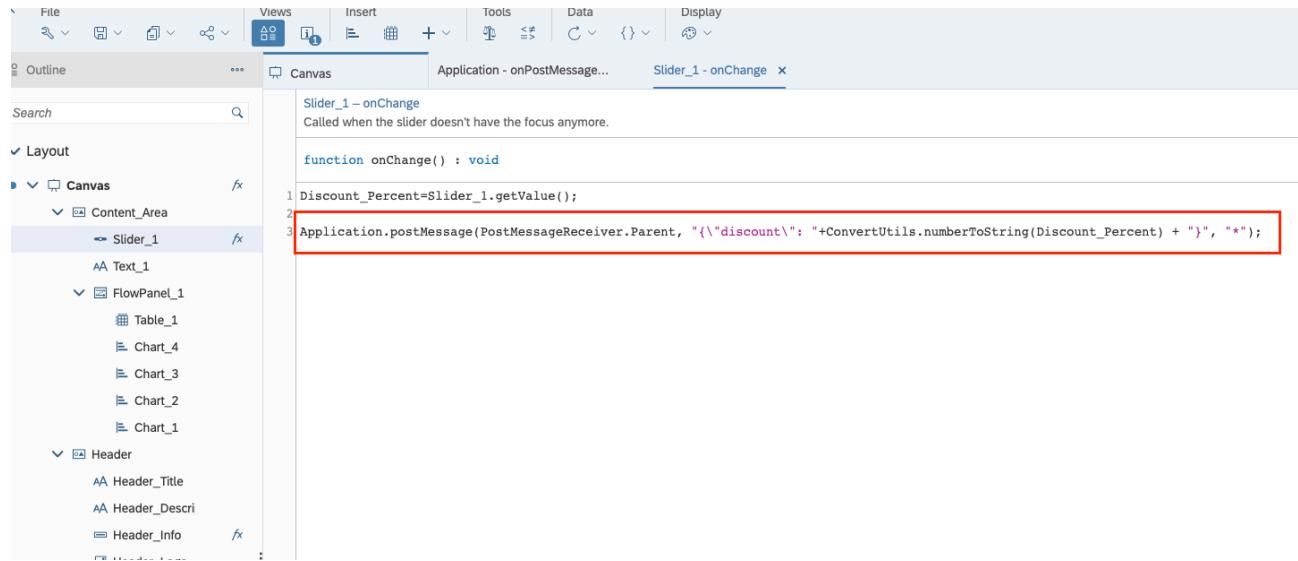
**Click fx**

The screenshot shows the Appcelerator Studio interface. On the left, the 'Layout' panel displays a tree view of the application's UI components. A red box highlights the 'fx' icon next to the 'Slider\_1' component. On the right, the 'Application – onPostMessageReceived' code editor shows the following JavaScript code:

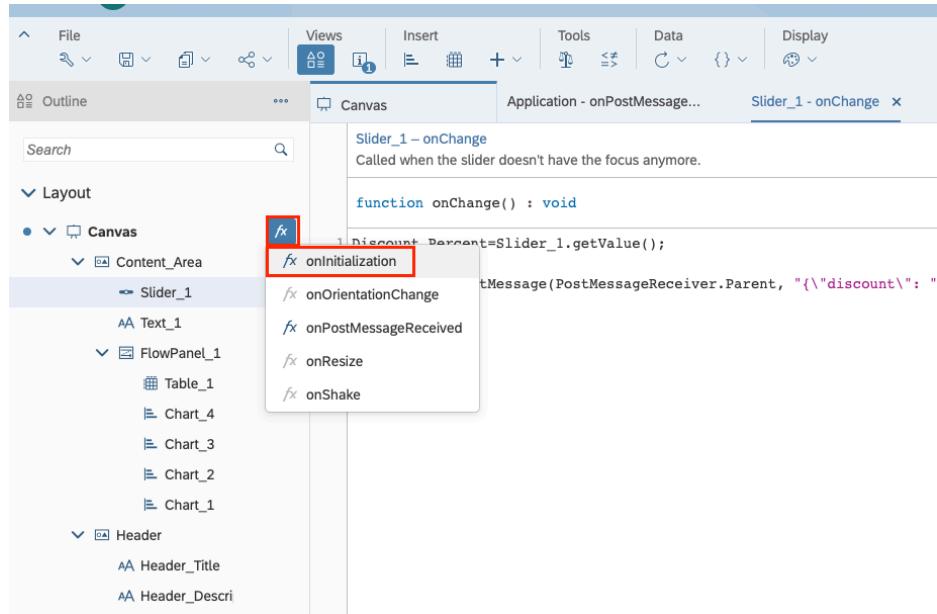
```
function onPostMessageReceived(message: string) {
 if (message === "mango") {
 Chart_1.getDataSource().setDimensionFilter("");
 Chart_2.getDataSource().setDimensionFilter("");
 Chart_3.getDataSource().setDimensionFilter("");
 Chart_4.getDataSource().setDimensionFilter("");
 Table_1.getDataSource().setDimensionFilter("");
 }
 if (message === "pineapple") {
 Chart_1.getDataSource().setDimensionFilter("[");
 Chart_2.getDataSource().setDimensionFilter("]");
 Chart_3.getDataSource().setDimensionFilter("");
 Chart_4.getDataSource().setDimensionFilter("");
 Table_1.getDataSource().setDimensionFilter("");
 }
 if (message === "strawberry") {
 Chart_1.getDataSource().setDimensionFilter("[");
 Chart_2.getDataSource().setDimensionFilter("]");
 Chart_3.getDataSource().setDimensionFilter("");
 Chart_4.getDataSource().setDimensionFilter("");
 Table_1.getDataSource().setDimensionFilter("");
 }
}
```

- 
25. Add (or copy & paste) the following scripting for the on click event of **Slider\_1**:

```
Application.postMessage(PostMessageReceiver.Parent, "{\"discount\":\n\"+ConvertUtils.numberToString(Discount_Percent) + \"}", "*");
```

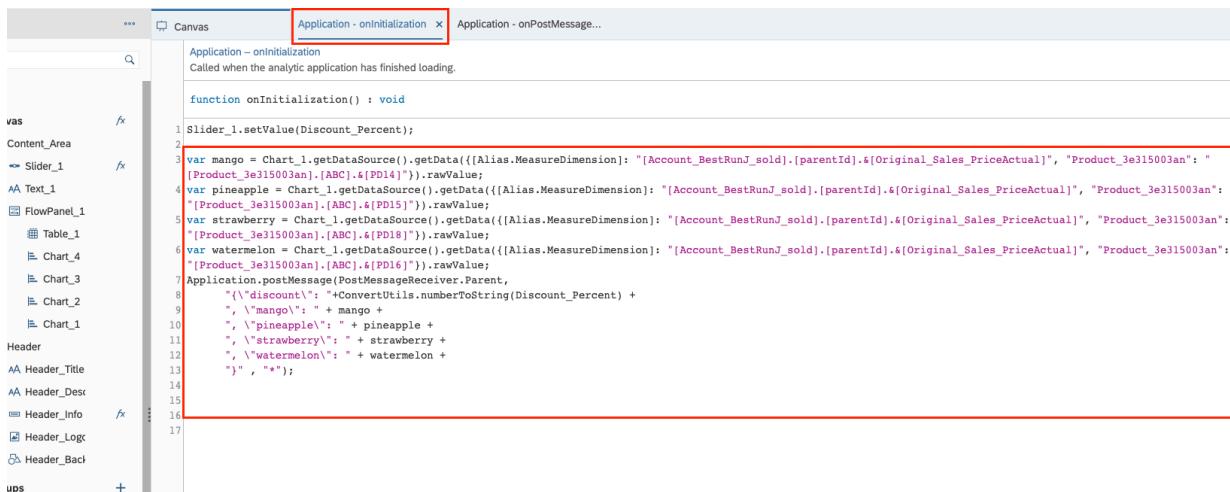


26. Select **onInitialization** event of the **Canvas**

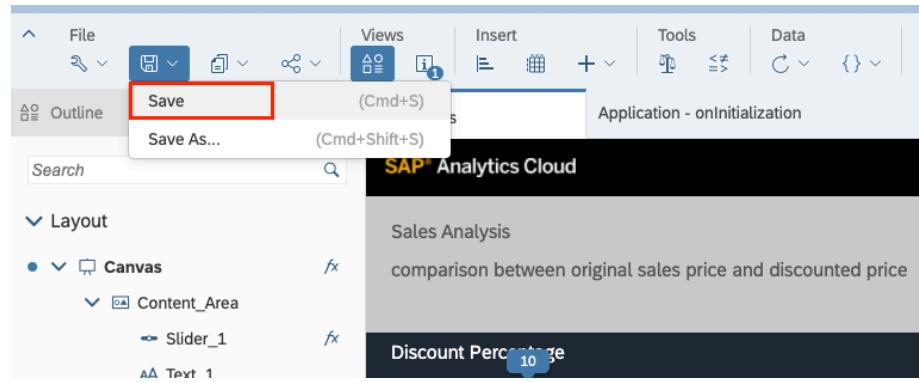


27. Add the following scripting APIs for the **onInitialization** event:

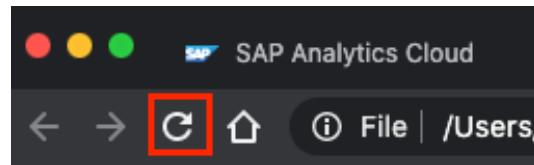
```
var mango = Chart_1.getDataSource().getData({[Alias.MeasureDimension]: "[Account_BestRunJ_sold].[parentId].[Original_Sales_PriceActual]", "Product_3e315003an": "[Product_3e315003an].[ABC].[PD14]"}).rawValue;
var pineapple = Chart_1.getDataSource().getData({[Alias.MeasureDimension]: "[Account_BestRunJ_sold].[parentId].[Original_Sales_PriceActual]", "Product_3e315003an": "[Product_3e315003an].[ABC].[PD15]"}).rawValue;
var strawberry = Chart_1.getDataSource().getData({[Alias.MeasureDimension]: "[Account_BestRunJ_sold].[parentId].[Original_Sales_PriceActual]", "Product_3e315003an": "[Product_3e315003an].[ABC].[PD18]"}).rawValue;
var watermelon = Chart_1.getDataSource().getData({[Alias.MeasureDimension]: "[Account_BestRunJ_sold].[parentId].[Original_Sales_PriceActual]", "Product_3e315003an": "[Product_3e315003an].[ABC].[PD16]"}).rawValue;
Application.postMessage(PostMessageReceiver.Parent,
 {"discount": "+ConvertUtils.numberToString(Discount_Percent) +
 ", \"mango\": " + mango +
 ", \"pineapple\": " + pineapple +
 ", \"strawberry\": " + strawberry +
 ", \"watermelon\": " + watermelon +
 "}" , "*");
```



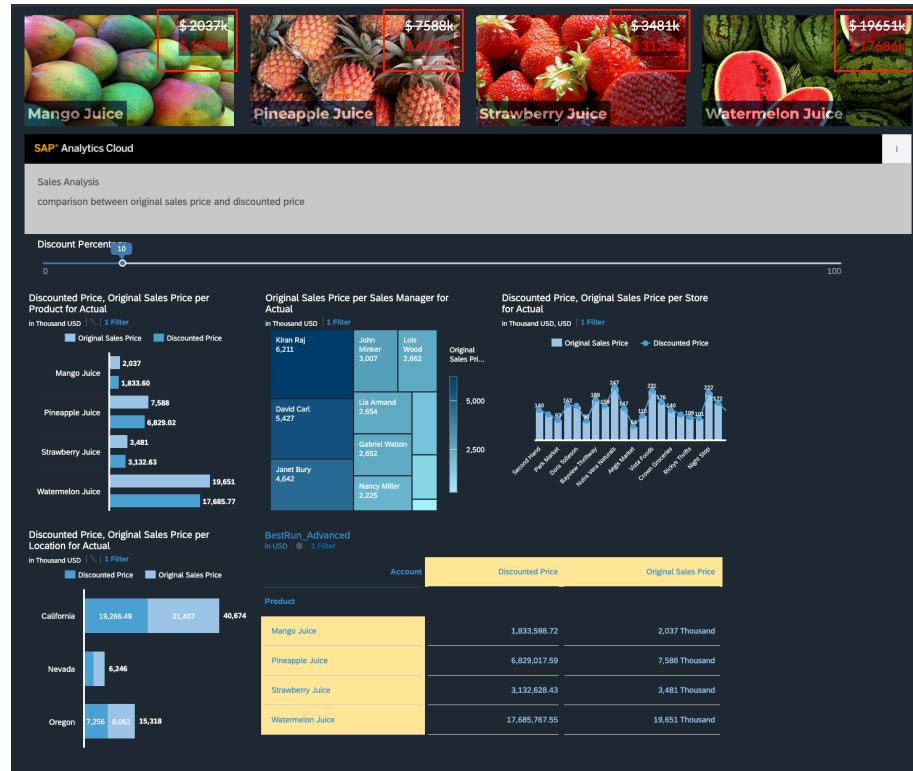
28. Click on the Floppy Disc icon and select **Save**.



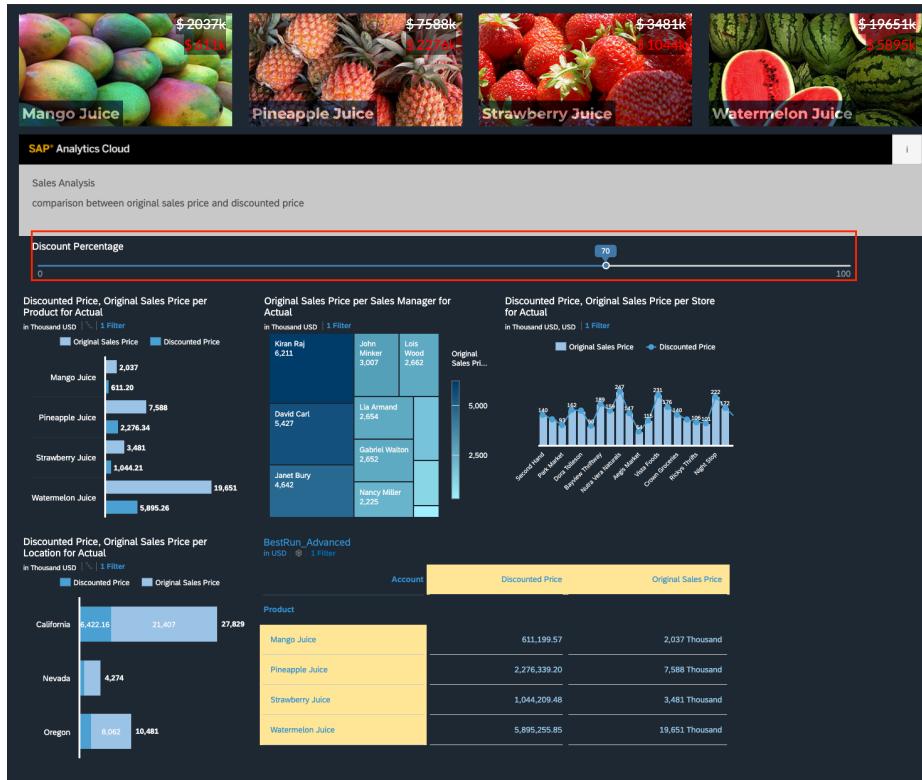
29. Click **C** on the previously opened ANA362\_EXE1.html page or enter the web address again.



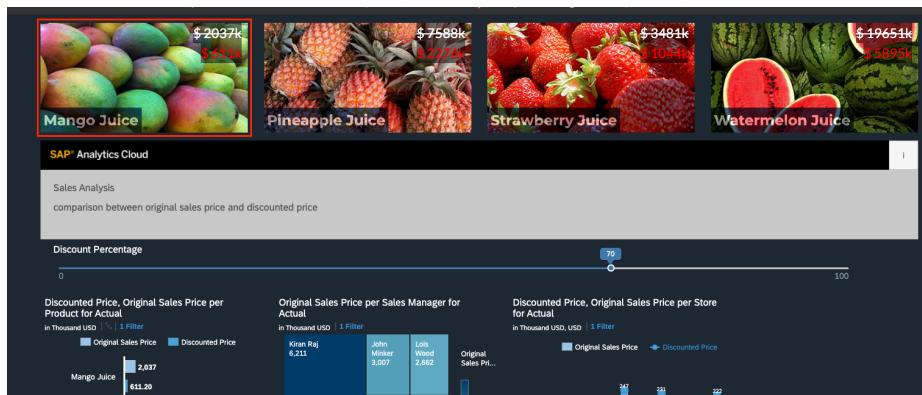
30. You can see all these prices when the application is initialized.



31. change the discount percentage to 70 via Slider



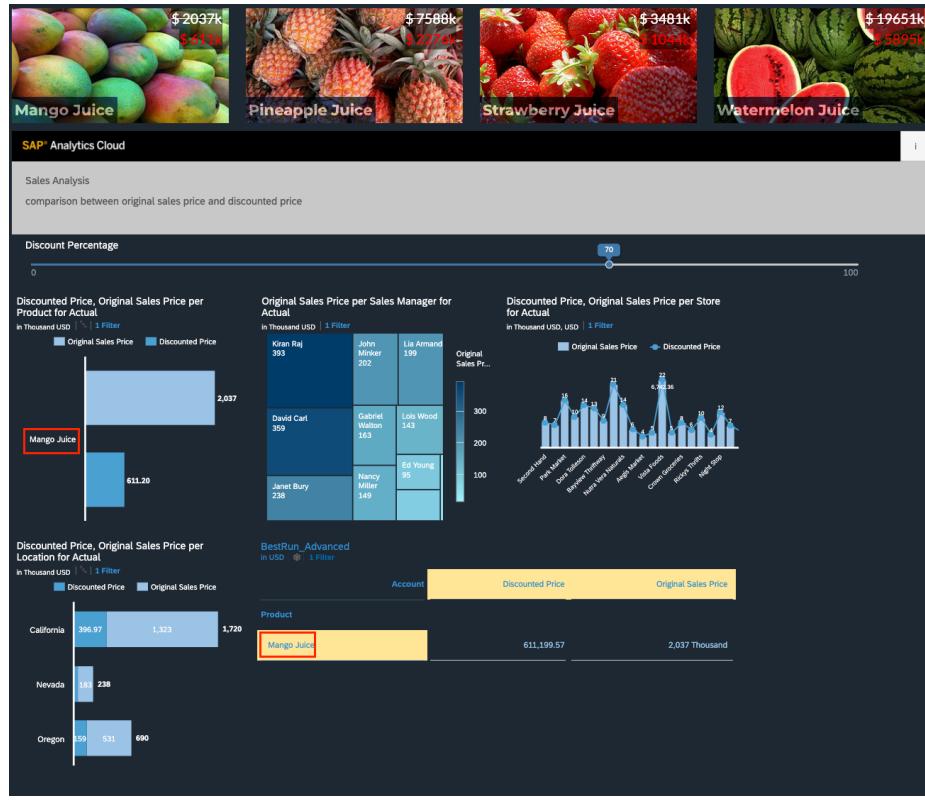
32. You can see that all the discounted prices have been changed based on the discount percentage which is **70%**.  
Here you can see the message exchange from application to HTML page.



33. Now please select **Mango Juice**

34. Now you can see that on Mango Juice is displayed on the different Widgets. In fact, we have sent the message from HTML page “**mango juice**” to analytical application to set the filter on the Widgets. So here we can see the message exchange from **html page to analytical application**.

You can select another type of Juice to see that chart is filtered with the Juice name.



**Congratulations! You Have completed the Exercise 1.**

### ***Summary***

**You Have Successfully Completed the Exercise!**

**You are now able to:**

- Know the basic workflow of creating an Analytical Application
- Configure Table and Charts
- Understand the capability of script variable (with URL parameter)
- Get the basic concept of scripting capability
- Know how to use theme via CSS code
- Use post message to embed an analytic application into a HTML page
- Set an application to mobile enabled

# ANA362 EXERCISE 2

## Overview

**Estimated time: [45] minutes**

### Objective

With this exercise you will be able to explore your dataset in real time via the Generic Template.

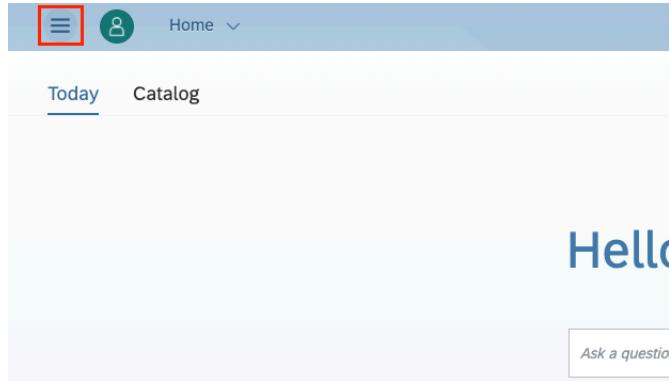
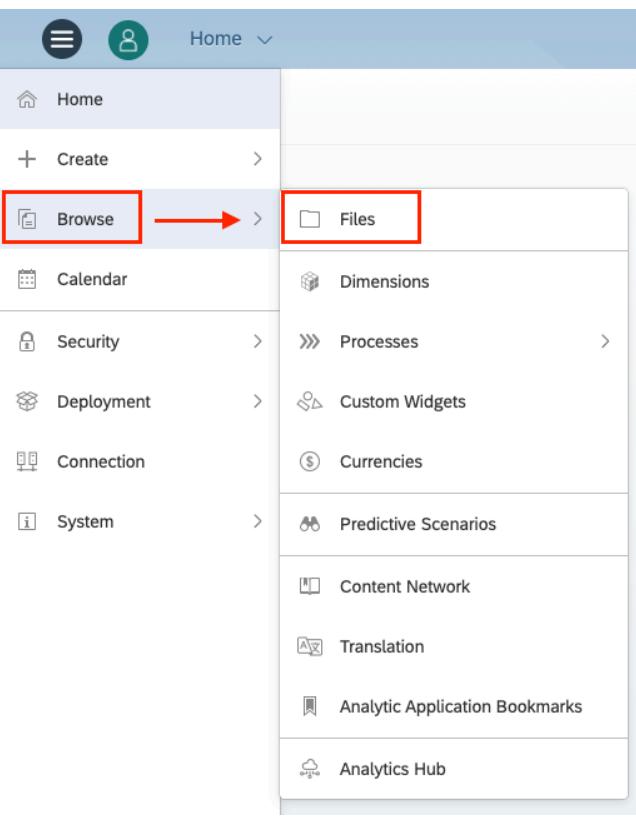
With this template you will have the possibility to select and modify your Data Set using the available functionalities.

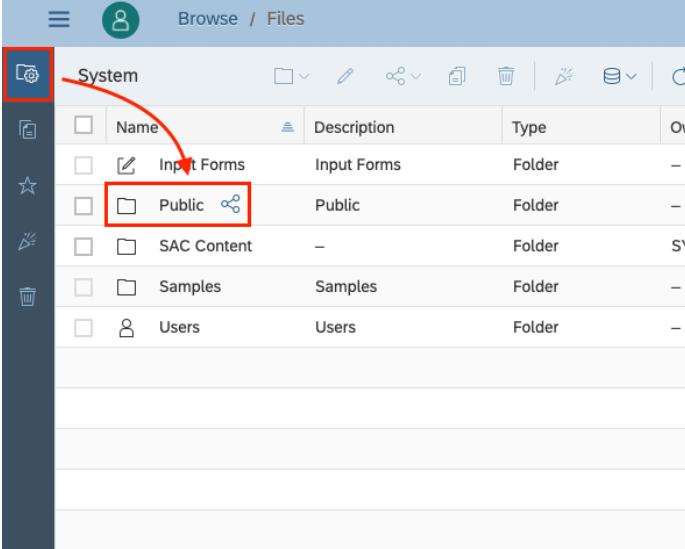
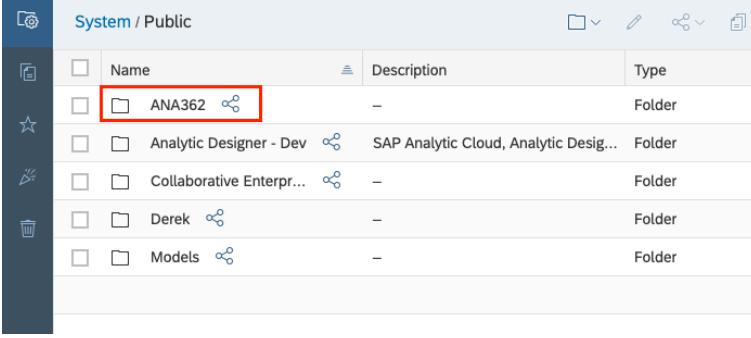
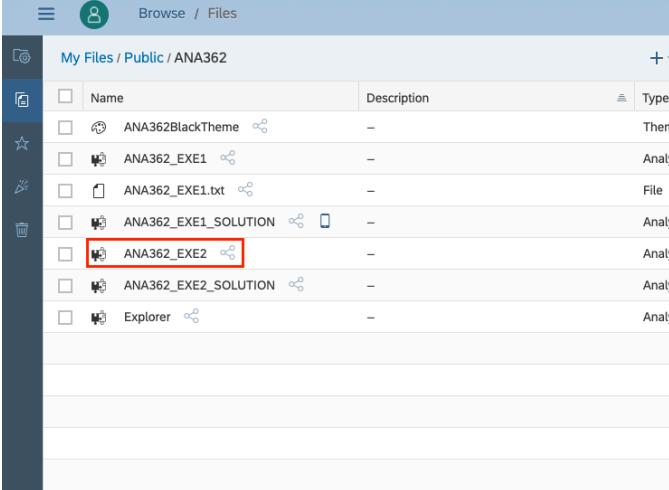
### Exercise Description

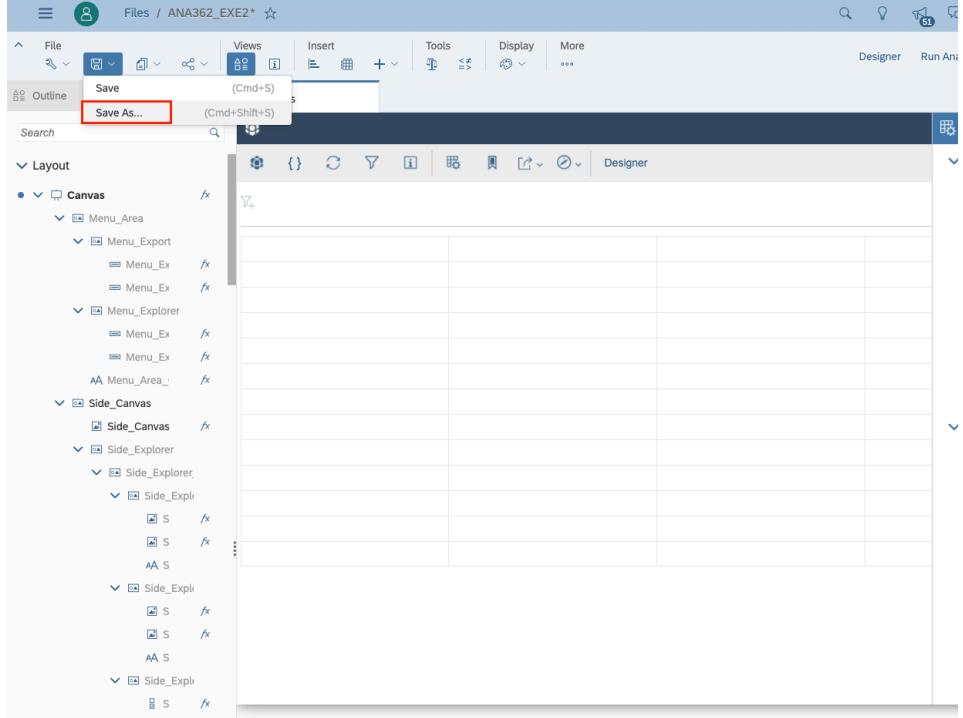
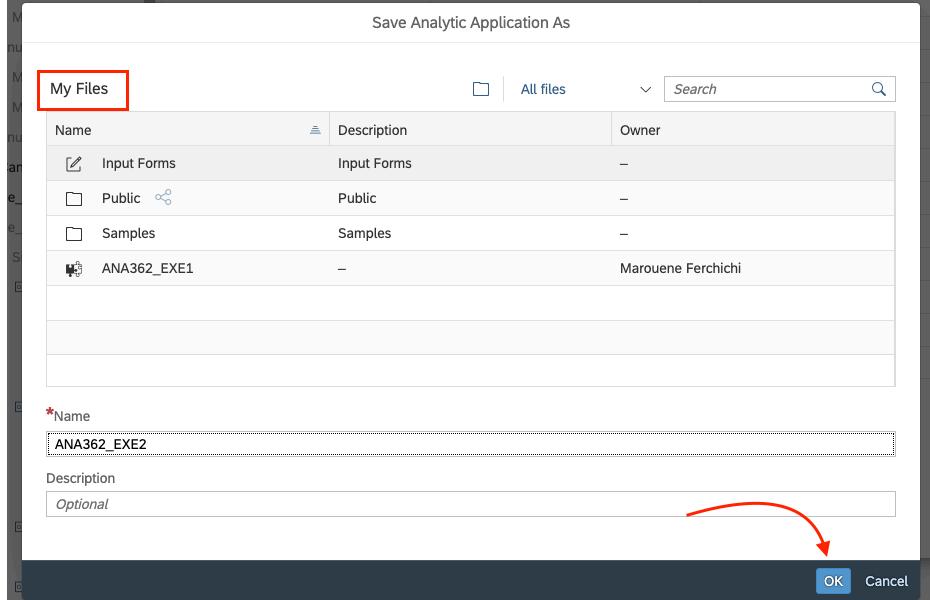
**You are going to execute the following steps within this exercise**

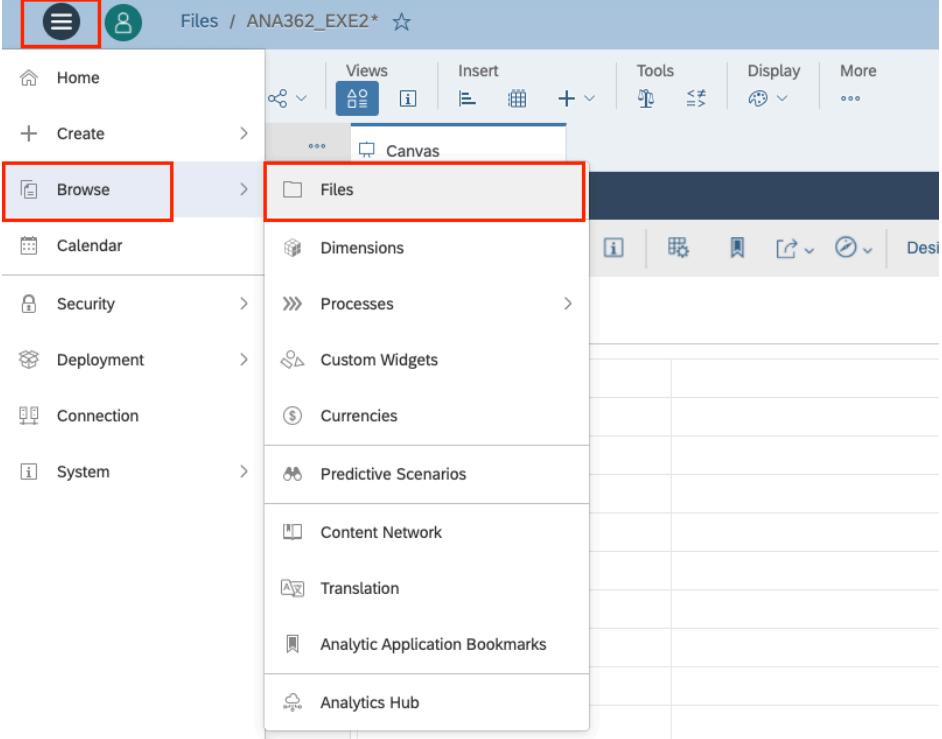
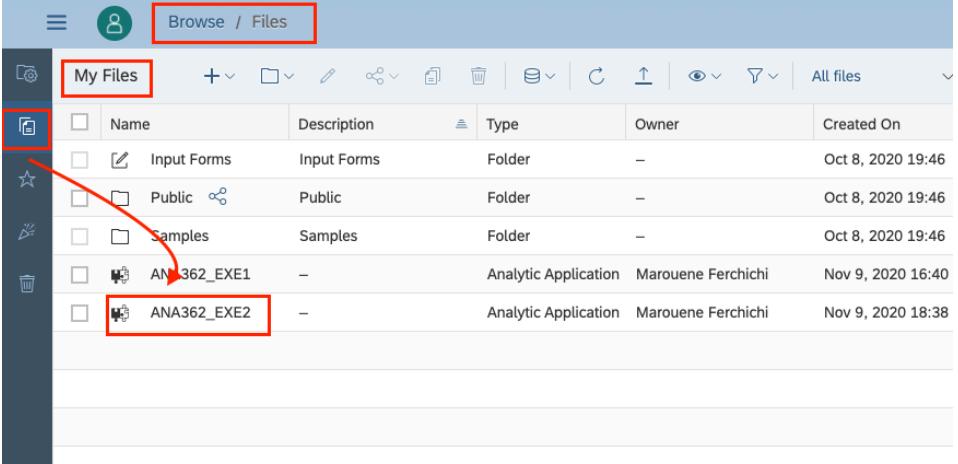
- Assign model to table and run the application
- Use the SelectDataModelDialog to select a Model at start time

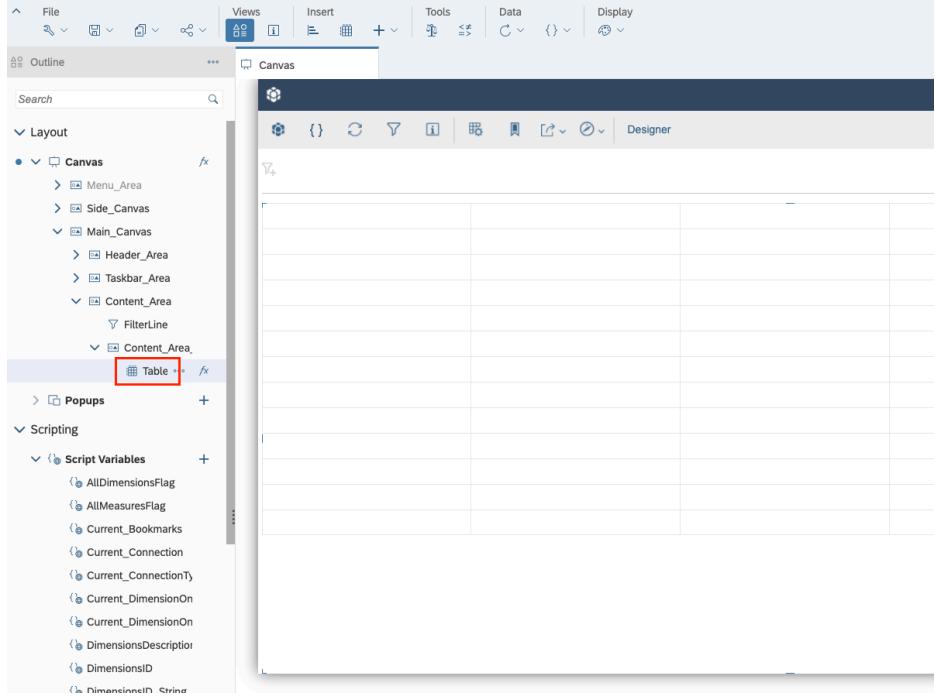
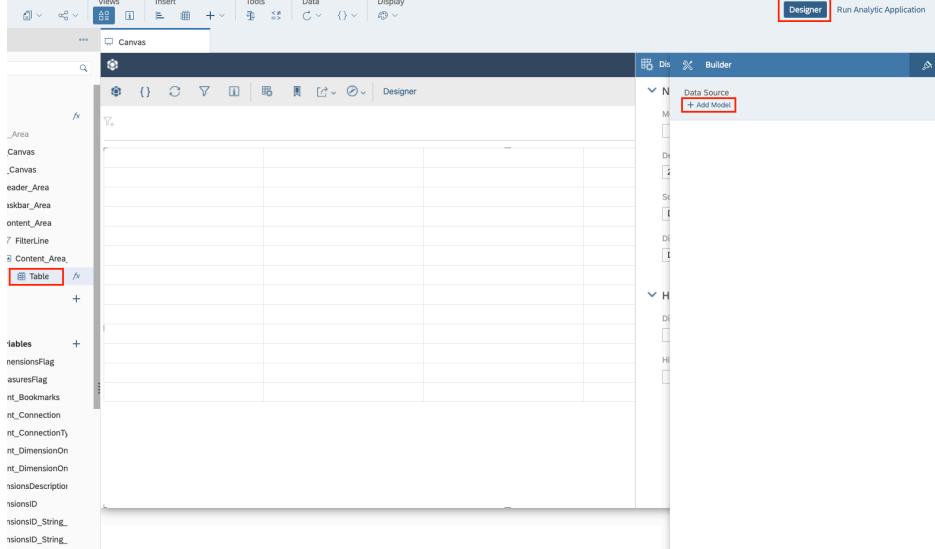
## Part 1: Assign model to table and run the application & explore the different functionalities of the Generic Template.

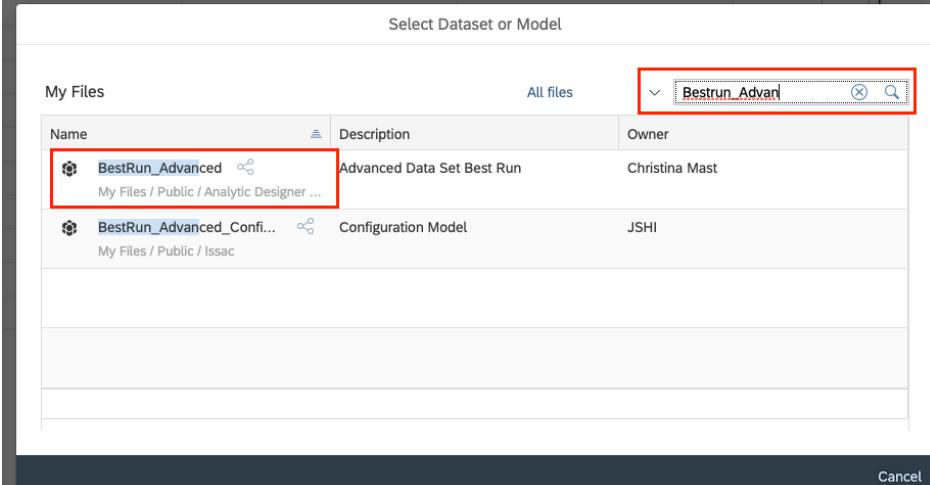
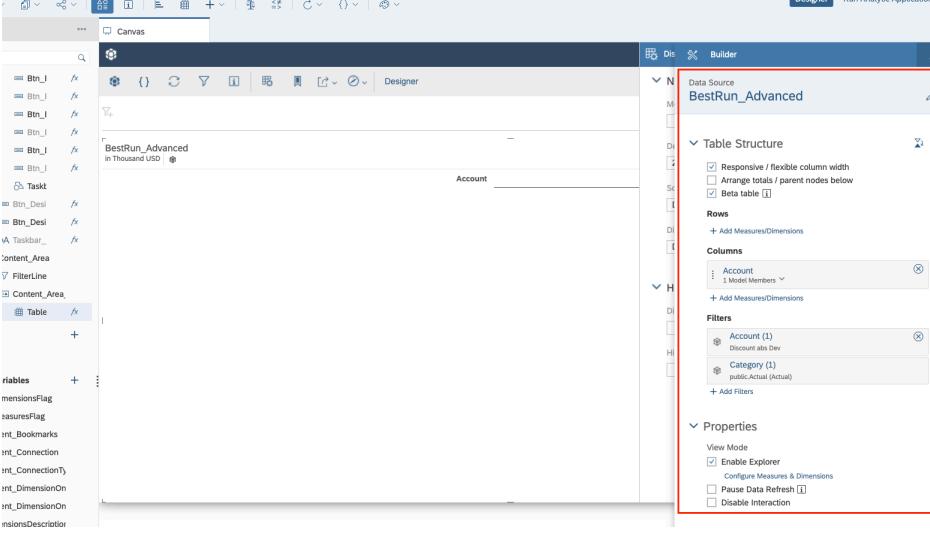
| Explanation                                                                                      | Screenshot                                                                           |
|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 1. Click on the <b>Main Menu</b> icon                                                            |   |
| 2. Select <b>Browse</b> and then <b>Files</b> to be able to select your analytical applications. |  |

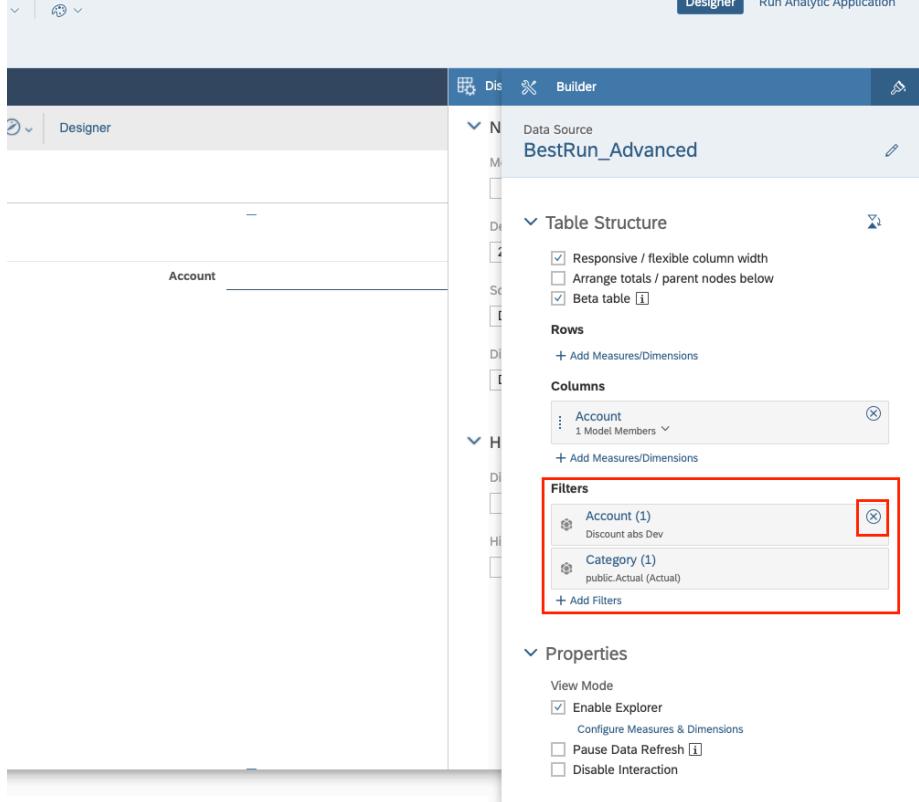
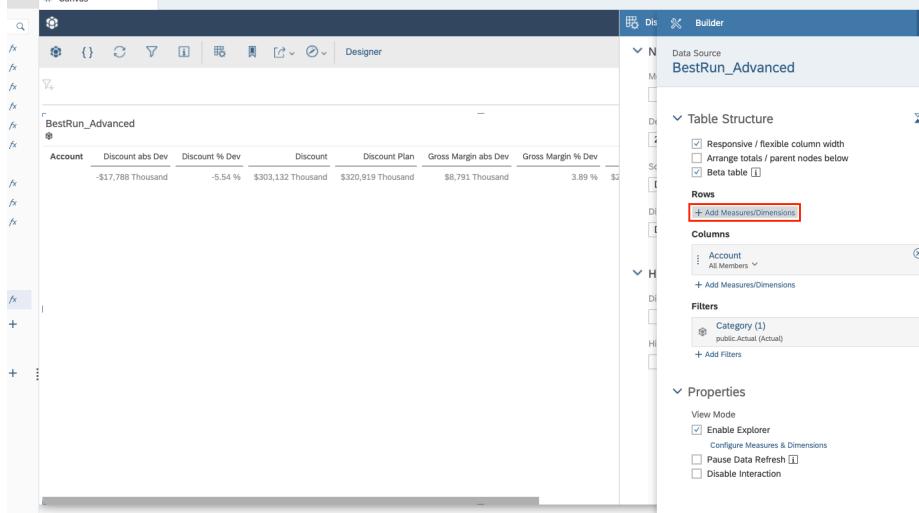
| Explanation                                                                                                          | Screenshot                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |        |             |      |                  |             |             |                         |                                        |        |                          |        |        |                      |   |        |             |         |         |                      |   |       |          |        |       |
|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|-------------|------|------------------|-------------|-------------|-------------------------|----------------------------------------|--------|--------------------------|--------|--------|----------------------|---|--------|-------------|---------|---------|----------------------|---|-------|----------|--------|-------|
| <p>3. Select the icon <b>System</b>, and then open the folder <b>Public</b>.</p>                                     |  <p>The screenshot shows the SAP Fiori Launchpad interface. On the left, there's a sidebar with icons for Home, System, Data, Analytics, and Fiori Launchpad. The 'System' icon is highlighted with a red box and has a red arrow pointing to the 'Public' folder in the main content area. The main content area displays a table with columns: Name, Description, Type, and Owner. The 'Public' folder is listed under the 'Input Forms' category.</p> <table border="1"> <thead> <tr> <th>Name</th> <th>Description</th> <th>Type</th> <th>Owner</th> </tr> </thead> <tbody> <tr> <td>Input Forms</td> <td>Input Forms</td> <td>Folder</td> <td>-</td> </tr> <tr> <td>Public</td> <td>Public</td> <td>Folder</td> <td>-</td> </tr> <tr> <td>SAC Content</td> <td>-</td> <td>Folder</td> <td>SY</td> </tr> <tr> <td>Samples</td> <td>Samples</td> <td>Folder</td> <td>-</td> </tr> <tr> <td>Users</td> <td>Users</td> <td>Folder</td> <td>-</td> </tr> </tbody> </table> | Name   | Description | Type | Owner            | Input Forms | Input Forms | Folder                  | -                                      | Public | Public                   | Folder | -      | SAC Content          | - | Folder | SY          | Samples | Samples | Folder               | - | Users | Users    | Folder | -     |
| Name                                                                                                                 | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Type   | Owner       |      |                  |             |             |                         |                                        |        |                          |        |        |                      |   |        |             |         |         |                      |   |       |          |        |       |
| Input Forms                                                                                                          | Input Forms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Folder | -           |      |                  |             |             |                         |                                        |        |                          |        |        |                      |   |        |             |         |         |                      |   |       |          |        |       |
| Public                                                                                                               | Public                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Folder | -           |      |                  |             |             |                         |                                        |        |                          |        |        |                      |   |        |             |         |         |                      |   |       |          |        |       |
| SAC Content                                                                                                          | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Folder | SY          |      |                  |             |             |                         |                                        |        |                          |        |        |                      |   |        |             |         |         |                      |   |       |          |        |       |
| Samples                                                                                                              | Samples                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Folder | -           |      |                  |             |             |                         |                                        |        |                          |        |        |                      |   |        |             |         |         |                      |   |       |          |        |       |
| Users                                                                                                                | Users                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Folder | -           |      |                  |             |             |                         |                                        |        |                          |        |        |                      |   |        |             |         |         |                      |   |       |          |        |       |
| <p>4. Navigate to the folder <b>ANA362</b></p>                                                                       |  <p>The screenshot shows the 'System / Public' folder expanded. The 'ANA362' folder is highlighted with a red box. The table lists several sub-folders under 'Public': Analytic Designer - Dev, Collaborative Enterprise, Derek, and Models.</p> <table border="1"> <thead> <tr> <th>Name</th> <th>Description</th> <th>Type</th> </tr> </thead> <tbody> <tr> <td>ANA362</td> <td>-</td> <td>Folder</td> </tr> <tr> <td>Analytic Designer - Dev</td> <td>SAP Analytic Cloud, Analytic Design...</td> <td>Folder</td> </tr> <tr> <td>Collaborative Enterpr...</td> <td>-</td> <td>Folder</td> </tr> <tr> <td>Derek</td> <td>-</td> <td>Folder</td> </tr> <tr> <td>Models</td> <td>-</td> <td>Folder</td> </tr> </tbody> </table>                                                                                                                                                                                                                                           | Name   | Description | Type | ANA362           | -           | Folder      | Analytic Designer - Dev | SAP Analytic Cloud, Analytic Design... | Folder | Collaborative Enterpr... | -      | Folder | Derek                | - | Folder | Models      | -       | Folder  |                      |   |       |          |        |       |
| Name                                                                                                                 | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Type   |             |      |                  |             |             |                         |                                        |        |                          |        |        |                      |   |        |             |         |         |                      |   |       |          |        |       |
| ANA362                                                                                                               | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Folder |             |      |                  |             |             |                         |                                        |        |                          |        |        |                      |   |        |             |         |         |                      |   |       |          |        |       |
| Analytic Designer - Dev                                                                                              | SAP Analytic Cloud, Analytic Design...                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Folder |             |      |                  |             |             |                         |                                        |        |                          |        |        |                      |   |        |             |         |         |                      |   |       |          |        |       |
| Collaborative Enterpr...                                                                                             | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Folder |             |      |                  |             |             |                         |                                        |        |                          |        |        |                      |   |        |             |         |         |                      |   |       |          |        |       |
| Derek                                                                                                                | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Folder |             |      |                  |             |             |                         |                                        |        |                          |        |        |                      |   |        |             |         |         |                      |   |       |          |        |       |
| Models                                                                                                               | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Folder |             |      |                  |             |             |                         |                                        |        |                          |        |        |                      |   |        |             |         |         |                      |   |       |          |        |       |
| <p>5. Click on the exercise <b>ANA362_EXE2</b> to open it and then you will save it with <b>My Files</b> folder.</p> |  <p>The screenshot shows the 'My Files / Public / ANA362' folder expanded. The 'ANA362_EXE2' file is highlighted with a red box. The table lists files and folders within the 'ANA362' folder: ANA362BlackTheme, ANA362_EXE1, ANA362_EXE1.txt, ANA362_EXE1 SOLUTION, ANA362_EXE2, ANA362_EXE2 SOLUTION, and Explorer.</p> <table border="1"> <thead> <tr> <th>Name</th> <th>Description</th> <th>Type</th> </tr> </thead> <tbody> <tr> <td>ANA362BlackTheme</td> <td>-</td> <td>Theme</td> </tr> <tr> <td>ANA362_EXE1</td> <td>-</td> <td>Analy</td> </tr> <tr> <td>ANA362_EXE1.txt</td> <td>-</td> <td>File</td> </tr> <tr> <td>ANA362_EXE1 SOLUTION</td> <td>-</td> <td>Analy</td> </tr> <tr> <td>ANA362_EXE2</td> <td>-</td> <td>Analy</td> </tr> <tr> <td>ANA362_EXE2 SOLUTION</td> <td>-</td> <td>Analy</td> </tr> <tr> <td>Explorer</td> <td>-</td> <td>Analy</td> </tr> </tbody> </table>                                                                         | Name   | Description | Type | ANA362BlackTheme | -           | Theme       | ANA362_EXE1             | -                                      | Analy  | ANA362_EXE1.txt          | -      | File   | ANA362_EXE1 SOLUTION | - | Analy  | ANA362_EXE2 | -       | Analy   | ANA362_EXE2 SOLUTION | - | Analy | Explorer | -      | Analy |
| Name                                                                                                                 | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Type   |             |      |                  |             |             |                         |                                        |        |                          |        |        |                      |   |        |             |         |         |                      |   |       |          |        |       |
| ANA362BlackTheme                                                                                                     | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Theme  |             |      |                  |             |             |                         |                                        |        |                          |        |        |                      |   |        |             |         |         |                      |   |       |          |        |       |
| ANA362_EXE1                                                                                                          | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Analy  |             |      |                  |             |             |                         |                                        |        |                          |        |        |                      |   |        |             |         |         |                      |   |       |          |        |       |
| ANA362_EXE1.txt                                                                                                      | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | File   |             |      |                  |             |             |                         |                                        |        |                          |        |        |                      |   |        |             |         |         |                      |   |       |          |        |       |
| ANA362_EXE1 SOLUTION                                                                                                 | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Analy  |             |      |                  |             |             |                         |                                        |        |                          |        |        |                      |   |        |             |         |         |                      |   |       |          |        |       |
| ANA362_EXE2                                                                                                          | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Analy  |             |      |                  |             |             |                         |                                        |        |                          |        |        |                      |   |        |             |         |         |                      |   |       |          |        |       |
| ANA362_EXE2 SOLUTION                                                                                                 | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Analy  |             |      |                  |             |             |                         |                                        |        |                          |        |        |                      |   |        |             |         |         |                      |   |       |          |        |       |
| Explorer                                                                                                             | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Analy  |             |      |                  |             |             |                         |                                        |        |                          |        |        |                      |   |        |             |         |         |                      |   |       |          |        |       |

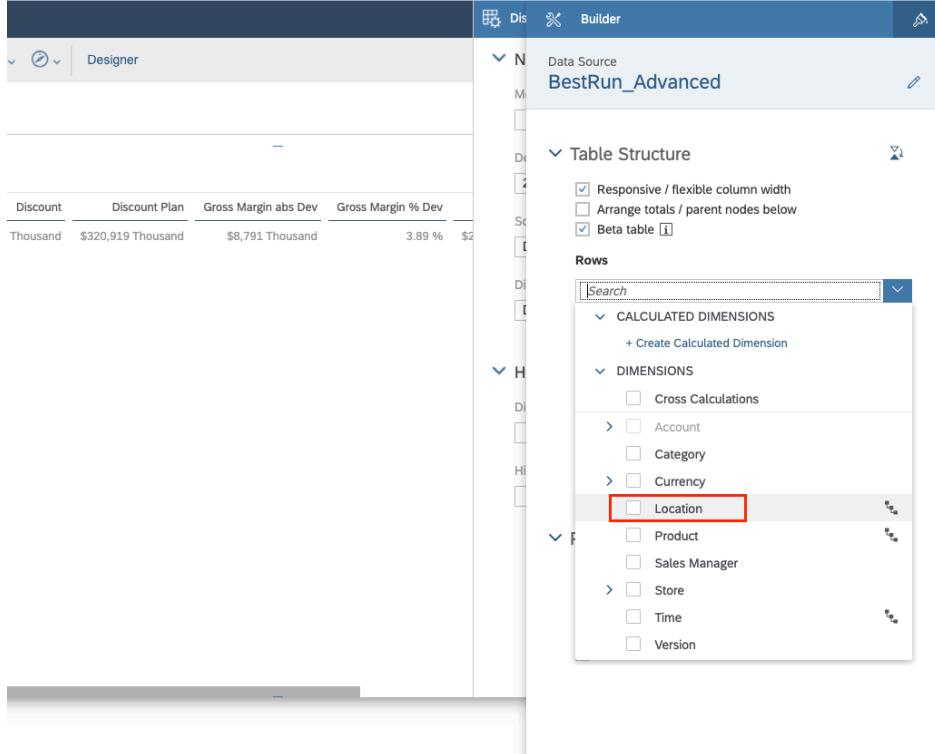
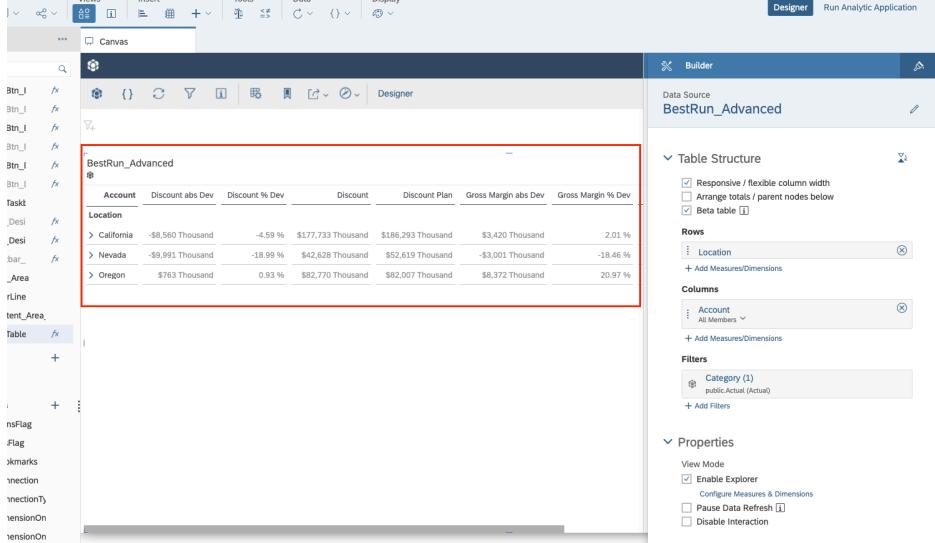
| Explanation                                                                                                                                                                                                                                                | Screenshot                                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <p>6. Before you start the different steps of the exercise, first of all <b>YOU SHOULD</b> save the application under <b>My Files</b> and rename it so you can work on your own application.</p> <p>Click on the <b>Save</b> icon<br/>→ <b>Save As</b></p> |   |
| <p>7. Be sure that you are under the folder <b>My Files</b>.</p> <p>Press <b>OK</b> and the application will be saved under your private folder <b>My Files</b></p>                                                                                        |  |

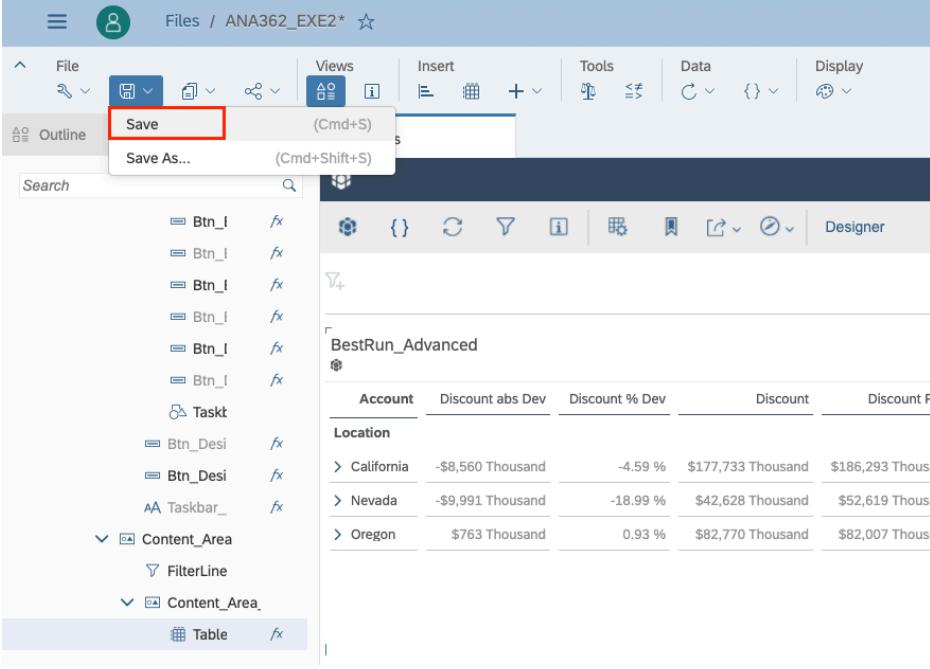
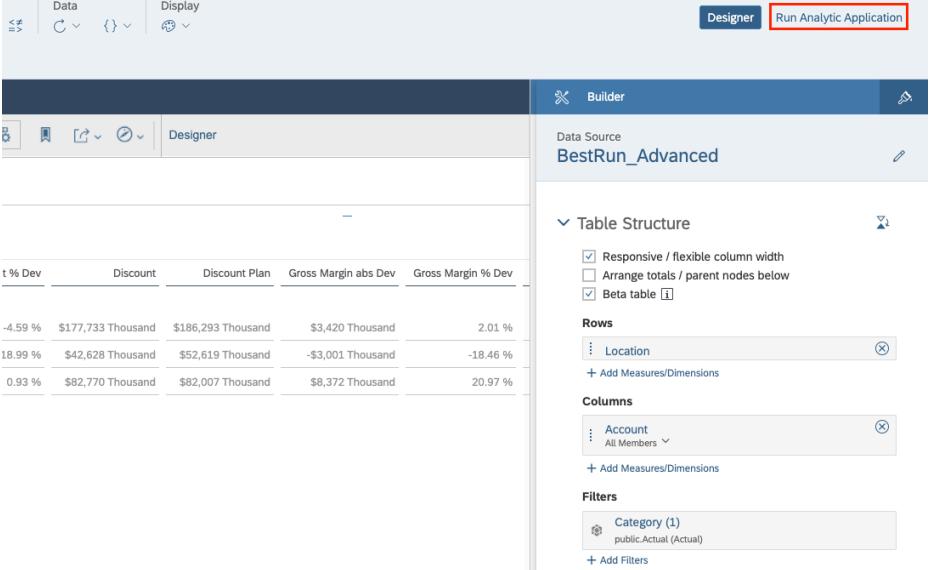
| Explanation                                                                                    | Screenshot                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>8. Now you can navigate back to <b>My Files</b> again in order to see your application.</p> |  <p>The screenshot shows the SAP Fiori Launchpad interface. The top navigation bar has a user icon and a search bar. Below it, the main menu is visible with options like Home, Create, Browse, and Files. The 'Files' option is highlighted with a red box. The left sidebar lists various system modules: Home, Create, Browse, Calendar, Security, Deployment, Connection, System, Views, Insert, Tools, Display, More, Dimensions, Processes, Custom Widgets, Currencies, Predictive Scenarios, Content Network, Translation, Analytic Application Bookmarks, and Analytics Hub.</p>                                                     |
| <p>9. Click on the exercise <b>ANA362_EXE2</b> to open it within <b>My Files</b> folder.</p>   |  <p>The screenshot shows the SAP Fiori My Files application. The top navigation bar has a user icon and a search bar. The title 'Browse / Files' is displayed. The left sidebar shows 'My Files' selected. The main area is a table listing files and folders. The table has columns: Name, Description, Type, Owner, and Created On. The rows are: Input Forms (Folder), Public (Folder), Samples (Folder), ANA362_EXE1 (Analytic Application), and ANA362_EXE2 (Analytic Application). The row for 'ANA362_EXE2' is highlighted with a red box. A red arrow points from the 'My Files' sidebar to the 'ANA362_EXE2' row in the table.</p> |

| Explanation                                                                                                  | Screenshot                                                                           |
|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <p>10. As next, under <b>Canvas</b> → <b>Main_Canvas</b> → <b>Content_Area</b>, select the <b>Table</b>.</p> |   |
| <p>11. Toggle the Designer panel to the <b>Builder</b> panel and click <b>Add Model</b></p>                  |  |

| Explanation                                                                                                                                                                                                               | Screenshot                                                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <p>12. Now you need to select a <b>data source</b>. Please use <b>BestRun_Advanced</b> as data source.</p> <p>Please use the <b>search bar</b> in order to find the data source faster; Write <b>BestRun_Advan...</b></p> |   |
| <p>13. Select <b>BestRun_Advanced</b></p>                                                                                                                                                                                 |                                                                                     |
| <p>14. As you can see the data source was added to the <b>Table</b> and we can now configure the <b>table structure</b>.</p>                                                                                              |  |

| Explanation                                                                                                 | Screenshot                                                                           |
|-------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <p>15. Let's remove the <b>Filter</b> for <b>Account</b>. Click the icon <b>x</b> to delete the filter.</p> |   |
| <p>16. As next we will add a <b>dimension</b> to the rows. Click <b>+Add Measures/Dimension</b>s</p>        |  |

| Explanation                                                                                   | Screenshot                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                   |                |                    |                    |                      |                    |                      |                    |            |  |                   |         |                    |                    |                  |        |        |  |                   |          |                   |                   |                   |          |        |  |                |        |                   |                   |                  |         |
|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------|--------------------|--------------------|----------------------|--------------------|----------------------|--------------------|------------|--|-------------------|---------|--------------------|--------------------|------------------|--------|--------|--|-------------------|----------|-------------------|-------------------|-------------------|----------|--------|--|----------------|--------|-------------------|-------------------|------------------|---------|
| <p>17. Select <b>Location</b> as a dimension.</p>                                             |  <p>The screenshot shows the Tableau Data Builder interface. In the 'Dimensions' section of the 'Table Structure' pane, the 'Location' checkbox is selected and highlighted with a red box. Other dimensions listed include Account, Category, Currency, Product, Sales Manager, Store, Time, and Version.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                   |                |                    |                    |                      |                    |                      |                    |            |  |                   |         |                    |                    |                  |        |        |  |                   |          |                   |                   |                   |          |        |  |                |        |                   |                   |                  |         |
| <p>18. As shown, we added the Location to our table.<br/>As next we save the application.</p> |  <p>The screenshot shows the Tableau Designer interface with a table visualization. The table has columns: Account, Discount abs Dev, Discount % Dev, Discount, Discount Plan, Gross Margin abs Dev, and Gross Margin % Dev. The 'Location' column is highlighted with a red box. The data rows show:</p> <table border="1"> <thead> <tr> <th>Location</th> <th>Account</th> <th>Discount abs Dev</th> <th>Discount % Dev</th> <th>Discount</th> <th>Discount Plan</th> <th>Gross Margin abs Dev</th> <th>Gross Margin % Dev</th> </tr> </thead> <tbody> <tr> <td>California</td> <td></td> <td>-\$8,560 Thousand</td> <td>-4.59 %</td> <td>\$177,733 Thousand</td> <td>\$186,293 Thousand</td> <td>\$3,420 Thousand</td> <td>2.01 %</td> </tr> <tr> <td>Nevada</td> <td></td> <td>-\$9,991 Thousand</td> <td>-18.99 %</td> <td>\$42,628 Thousand</td> <td>\$52,619 Thousand</td> <td>-\$3,001 Thousand</td> <td>-18.46 %</td> </tr> <tr> <td>Oregon</td> <td></td> <td>\$763 Thousand</td> <td>0.93 %</td> <td>\$82,770 Thousand</td> <td>\$82,007 Thousand</td> <td>\$8,372 Thousand</td> <td>20.97 %</td> </tr> </tbody> </table> | Location          | Account        | Discount abs Dev   | Discount % Dev     | Discount             | Discount Plan      | Gross Margin abs Dev | Gross Margin % Dev | California |  | -\$8,560 Thousand | -4.59 % | \$177,733 Thousand | \$186,293 Thousand | \$3,420 Thousand | 2.01 % | Nevada |  | -\$9,991 Thousand | -18.99 % | \$42,628 Thousand | \$52,619 Thousand | -\$3,001 Thousand | -18.46 % | Oregon |  | \$763 Thousand | 0.93 % | \$82,770 Thousand | \$82,007 Thousand | \$8,372 Thousand | 20.97 % |
| Location                                                                                      | Account                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Discount abs Dev  | Discount % Dev | Discount           | Discount Plan      | Gross Margin abs Dev | Gross Margin % Dev |                      |                    |            |  |                   |         |                    |                    |                  |        |        |  |                   |          |                   |                   |                   |          |        |  |                |        |                   |                   |                  |         |
| California                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -\$8,560 Thousand | -4.59 %        | \$177,733 Thousand | \$186,293 Thousand | \$3,420 Thousand     | 2.01 %             |                      |                    |            |  |                   |         |                    |                    |                  |        |        |  |                   |          |                   |                   |                   |          |        |  |                |        |                   |                   |                  |         |
| Nevada                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | -\$9,991 Thousand | -18.99 %       | \$42,628 Thousand  | \$52,619 Thousand  | -\$3,001 Thousand    | -18.46 %           |                      |                    |            |  |                   |         |                    |                    |                  |        |        |  |                   |          |                   |                   |                   |          |        |  |                |        |                   |                   |                  |         |
| Oregon                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | \$763 Thousand    | 0.93 %         | \$82,770 Thousand  | \$82,007 Thousand  | \$8,372 Thousand     | 20.97 %            |                      |                    |            |  |                   |         |                    |                    |                  |        |        |  |                   |          |                   |                   |                   |          |        |  |                |        |                   |                   |                  |         |

| Explanation                                                                                                                                                   | Screenshot                                                                                                                                                                                                                                                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>19. Click on the <b>Floppy Disc</b> icon and select <b>Save</b>.</p>                                                                                       |  <p>The screenshot shows the SAP Analytics Cloud interface with the file menu open. The 'Save' option is highlighted with a red box. Below it, 'Save As...' is also visible.</p>                                                                             |
| <p>20. Click <b>Run Analytic Application</b> to see how our <b>Generic Template</b> look like, and let's explore the different functionalities available.</p> |  <p>The screenshot shows the SAP Analytics Cloud interface with the 'Run Analytic Application' button highlighted with a red box in the top right corner. The interface displays a table with data and various configuration options on the right side.</p> |

**Explanation****Screenshot**

21. Congratulations! You were able to assign a Model to the table and achieved the first part of the Exercise 2. Let's explore together to the different functionalities available in tool bar:

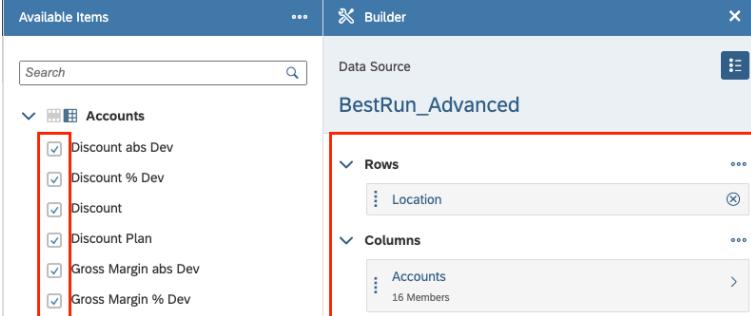
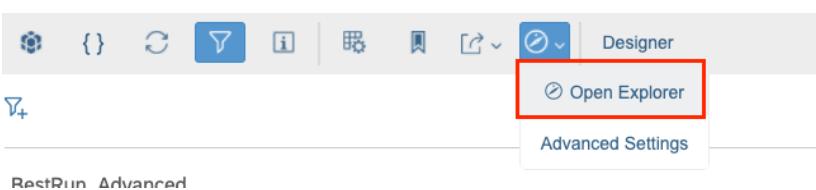
| Location     | Account           | Discount abs Dev | Discount % Dev     | Discount           | Discount Plan     | Gross Margin abs Dev | Gross Margin % Dev | Gross Margin       | Gross Margin Plan  | Original Sales Price abs Dev | Original Sales Price % Dev | Original Sales Price | Original Sales Price Plan | Quantity sold abs Dev | Quantity so |
|--------------|-------------------|------------------|--------------------|--------------------|-------------------|----------------------|--------------------|--------------------|--------------------|------------------------------|----------------------------|----------------------|---------------------------|-----------------------|-------------|
| > California | -\$8,560 Thousand | -4.59 %          | \$177,733 Thousand | \$186,293 Thousand | \$3,420 Thousand  | 2.01 %               | \$173,482 Thousand | \$170,062 Thousand | -\$51,201 Thousand | 0 k                          | \$723,452 Thousand         | \$774,653 Thousand   | -\$5,341.37 Thousand      |                       |             |
| > Nevada     | -\$9,991 Thousand | -18.99 %         | \$42,628 Thousand  | \$52,619 Thousand  | -\$3,001 Thousand | -18.46 %             | \$13,254 Thousand  | \$16,255 Thousand  | \$13,678 Thousand  | 0 k                          | \$114,506 Thousand         | \$100,828 Thousand   | -\$772.65 Thousand        |                       |             |
| > Oregon     | \$763 Thousand    | 0.93 %           | \$82,770 Thousand  | \$82,007 Thousand  | \$8,372 Thousand  | 20.97 %              | \$48,302 Thousand  | \$39,690 Thousand  | \$24,700 Thousand  | 0 k                          | \$291,152 Thousand         | \$266,452 Thousand   | -\$2,411.33 Thousand      |                       |             |

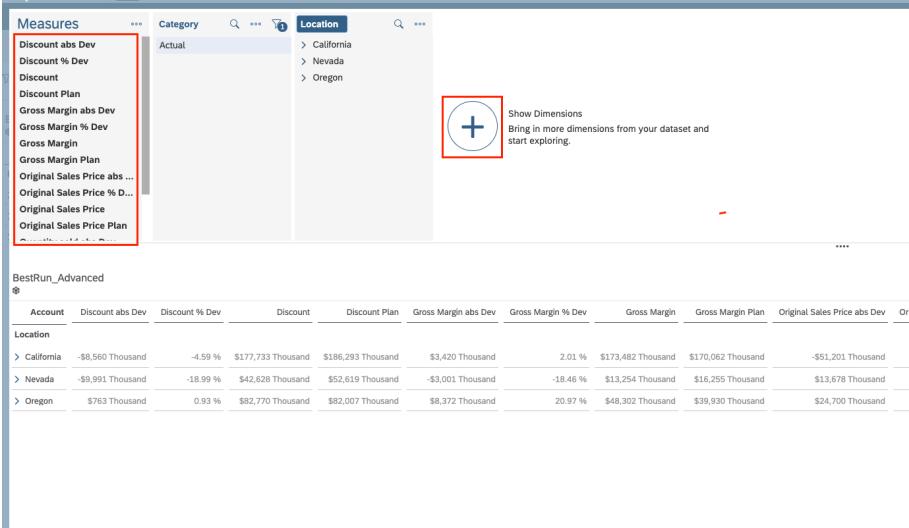
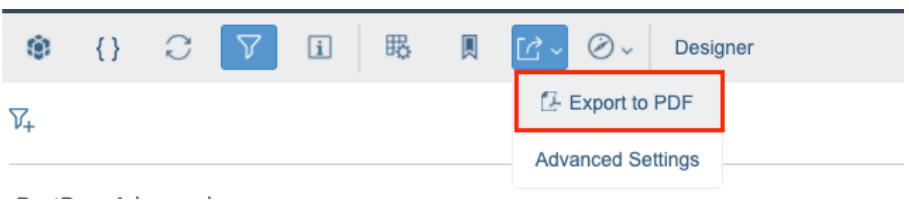
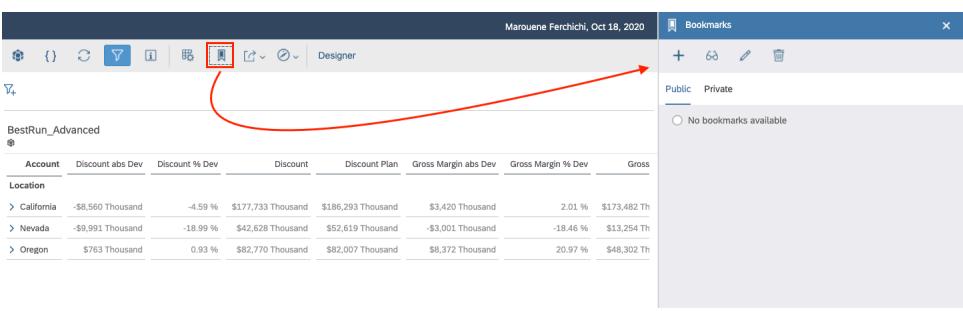
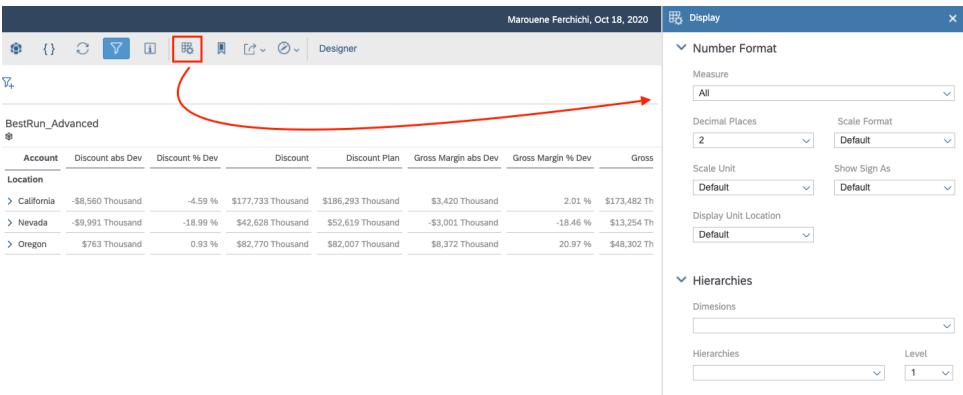
22. Click the button **Designer** and see what will happen.



23. As shown, by clicking the **Designer** button, a new panel will be opened.

In this **Designer Panel** we can see all the **Available Items (Accounts & Dimensions)** of our **Data source**.

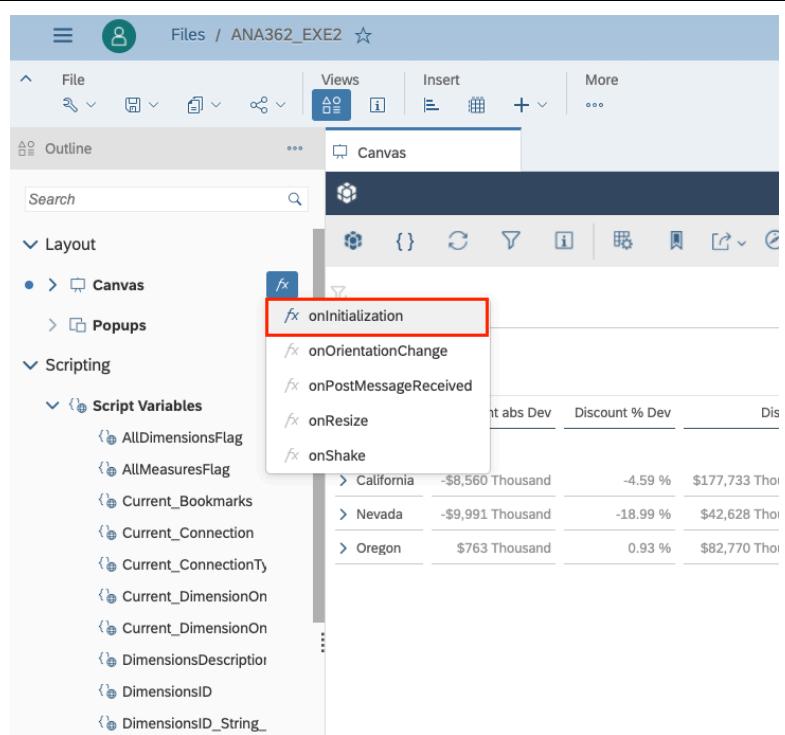
| Explanation                                                                                                                                                                                                                | Screenshot                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>24. You are able to select/deselect <b>Measures</b>. You can as well your dimension vertically or horizontally.</p> <p>You can drag and drop between <b>rows</b> and <b>columns</b></p> <p>Feel free to explore it!</p> |  <p>The screenshot shows the Tableau Data Builder interface. On the left, the 'Available Items' pane lists various measures and dimensions. A red box highlights the 'Accounts' section under 'Measures', which includes items like 'Discount abs Dev', 'Gross Margin abs Dev', and 'Quantity sold abs Dev'. Another red box highlights the 'Dimensions' section, listing items such as 'Currency', 'Time', 'Location', and 'Store'. On the right, the 'Builder' pane shows the 'Data Source' as 'BestRun_Advanced'. Under 'Rows', 'Location' is listed. Under 'Columns', 'Accounts' is listed with '16 Members'. Both the 'Rows' and 'Columns' sections are also highlighted with red boxes.</p> |
| <p>25. Click on <b>Open Explorer</b> icon</p>                                                                                                                                                                              |  <p>The screenshot shows the Tableau ribbon. The 'Open Explorer' icon, which looks like a folder with a magnifying glass, is highlighted with a red box. Other icons in the ribbon include 'Home', 'New', 'Save', 'Refresh', 'Find', 'Info', 'Zoom In', 'Zoom Out', 'Designer', and 'Advanced Settings'. Below the ribbon, the text 'BestRun_Advanced' is visible.</p>                                                                                                                                                                                                                                                                                                                          |

| Explanation                                                                                                                                       | Screenshot                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 26. You can also select/deselect Measures and Add dimensions.                                                                                     |  <p>The screenshot shows the Power BI desktop interface. On the left, there's a 'Measures' pane with a list of measures like 'Discount abs Dev', 'Discount % Dev', 'Discount Plan', etc., each preceded by a checkbox. A red box highlights this pane. On the right, there's a 'Location' pane with a tree view of locations: California, Nevada, Oregon. Below these panes is a table titled 'BestRun_Advanced'. The table has columns for Account, Discount abs Dev, Discount % Dev, Discount, Discount Plan, Gross Margin abs Dev, Gross Margin % Dev, Gross Margin, Gross Margin Plan, Original Sales Price abs Dev, and Original Sales Price Plan. Data rows are shown for California, Nevada, and Oregon. At the bottom right of the table area, there's a blue circle with a plus sign and the text 'Show Dimensions' with a sub-instruction 'Bring in more dimensions from your dataset and start exploring.'</p> |
| 27. You can export your table to <b>PDF</b> by clicking the Export icon.                                                                          |  <p>The screenshot shows the Power BI ribbon. The 'File' tab is selected. In the 'Share' section, there's an 'Export' icon (a document with a plus sign) which is highlighted with a red box. Below it are other options like 'Designer' and 'Advanced Settings'.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 28. By clicking the <b>bookmark</b> icon, a new panel will be opened, and you can either add/modify a <b>public</b> or a <b>private</b> bookmark. |  <p>The screenshot shows the Power BI ribbon. The 'File' tab is selected. The 'Bookmarks' icon (a bookmark symbol) is highlighted with a red box. A red callout arrow points to a new panel on the right labeled 'Bookmarks' which shows sections for 'Public' and 'Private' bookmarks. It also includes a 'No bookmarks available' message.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 29. You can change the <b>Number Format</b> of the available measures, by clicking the icon <b>Display</b> .                                      |  <p>The screenshot shows the Power BI ribbon. The 'File' tab is selected. The 'Display' icon (a screen with a grid) is highlighted with a red box. A red callout arrow points to a new panel on the right labeled 'Display'. This panel has sections for 'Number Format' (with dropdowns for 'Measure', 'Decimal Places', 'Scale Format', 'Scale Unit', 'Show Sign As', and 'Display Unit Location') and 'Hierarchies' (with dropdowns for 'Dimensions' and 'Hierarchies').</p>                                                                                                                                                                                                                                                                                                                                                                                                                                         |

## Part 2: Use the SelectDataModelDialog to select a Model at Start time.

1. Let's go back to the application **ANA362\_EXE2**.

2. Go to the outline panel and click **fx** of **Canvas** and select **onInitialization** (event)



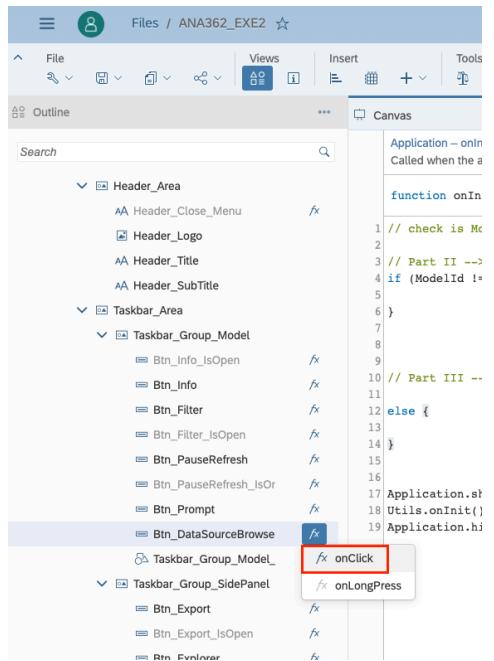
3. Add the script below under the comment: **//Part III --> Open Model Dialog**

```
else {
 Table.openSelectModelDialog();
}
```

```
Search Application – onInitialization
Called when the analytic application has finished loading.

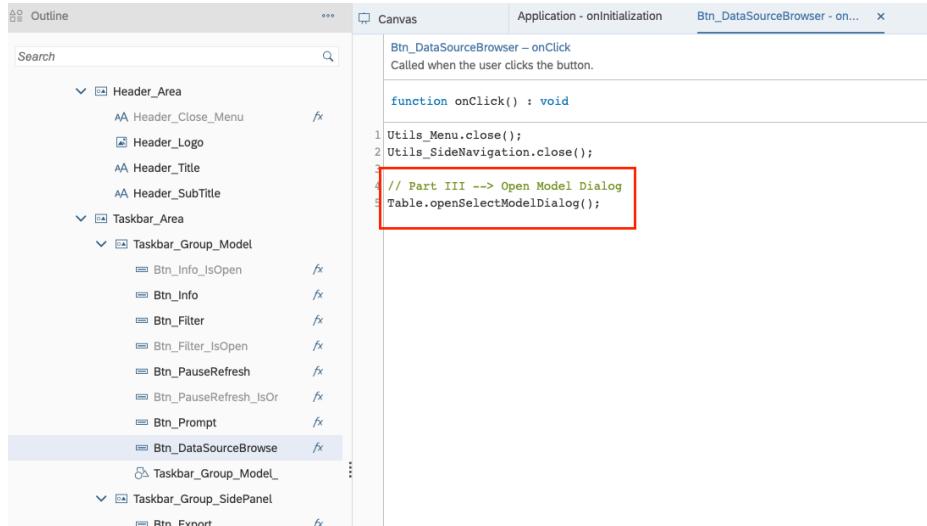
function onInitialization() : void
1 // check is ModelID set via URL parameter
2
3 // Part II --> ModelID via URL
4 if (ModelID != ""){
5 Table.setModel(ModelID);
6 }
7
8
9
10 // Part III --> Open Model Dialog
11
12 else {
13 Table.openSelectModelDialog();
14 }
15
16
17 Application.showBusyIndicator(Msg_LoadingModel);
18 Utils.onInit();
19 Application.hideBusyIndicator();
```

4. Go to the **Btn\_DataSourceBrowser** in the outline and click **fx** and select **onClick** (event).

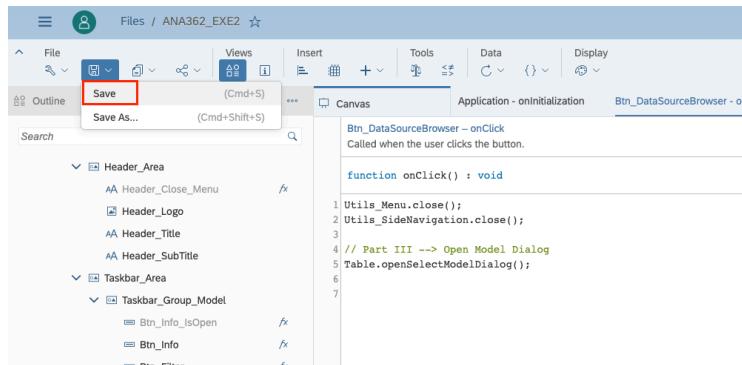


5. Add the script below under the comment **//Part III --> Open Model Dialog**

**Table.openSelectModelDialog();**



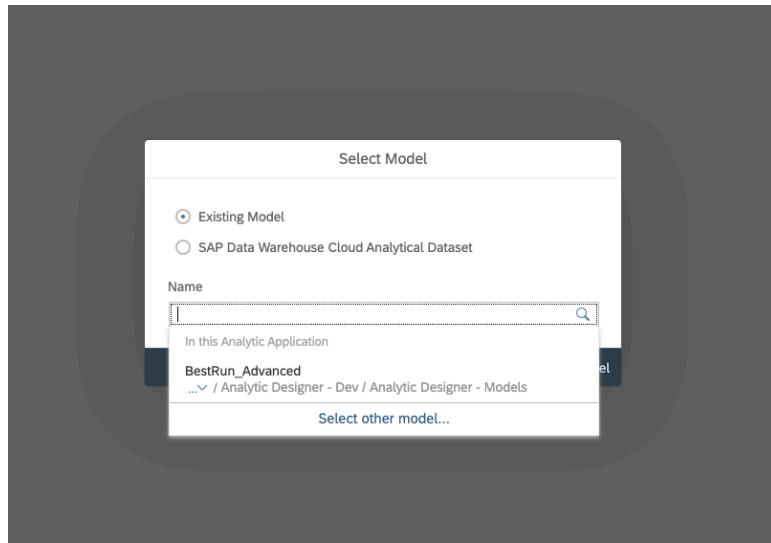
6. Click on the **Floppy Disc** icon and select **Save**.



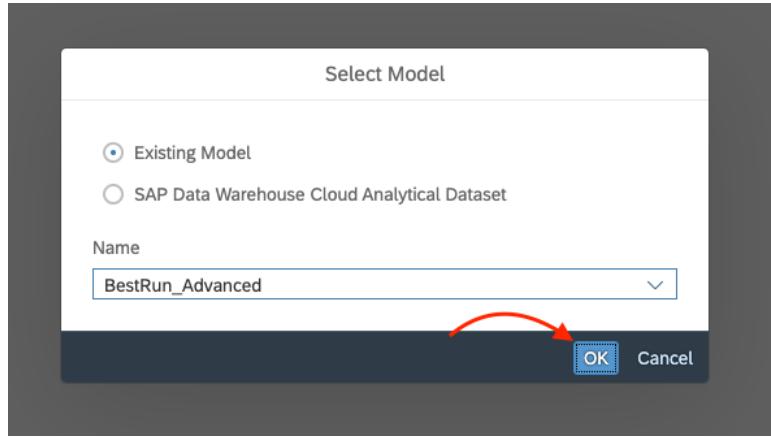
**7. Click Run Analytical Application**

The screenshot shows the SAP Analytics Cloud Designer interface. At the top, there are tabs for 'Data' and 'Display'. On the right, there are buttons for 'Designer' and 'Run Analytic Application', with 'Run Analytic Application' highlighted with a red box. The main area is titled 'Builder' and shows a table structure for 'BestRun\_Advanced'. The table has columns: t % Dev, Discount, Discount Plan, Gross Margin abs Dev, and Gross Margin % Dev. Data rows are shown for -4.59%, 18.99%, and 0.93%. To the right of the table, there are sections for 'Table Structure' (with checkboxes for responsive width, totals, and beta table), 'Rows' (with 'Location' selected), 'Columns' (with 'Account' selected), and 'Filters' (with 'Category (1) public/Actual (Actual)' selected). A '+' button for add measures/dimensions is also present.

**8. Now you are able to select any Model available in Sap Analytics Cloud.**



**9. Click OK to confirm your selected Model.**



10. You will be redirected to your **Generic Template** with the selected Model

The screenshot shows the SAP Analytics Cloud Designer interface. At the top, there are two tabs: 'SAP Analytics Cloud' and 'Designer'. The 'Designer' tab is active. Below the tabs, the title 'BestRun\_Advanced' is displayed. The main area contains a table with data for three locations: California, Nevada, and Oregon. The columns include Account, Discount abs Dev, Discount % Dev, Discount, Discount Plan, Gross Margin abs Dev, and Gross Margin. The table data is as follows:

| Location   | Account | Discount abs Dev  | Discount % Dev | Discount           | Discount Plan      | Gross Margin abs Dev | Gross Margin |
|------------|---------|-------------------|----------------|--------------------|--------------------|----------------------|--------------|
| California |         | -\$8,560 Thousand | -4.59 %        | \$177,733 Thousand | \$186,293 Thousand | \$3,420 Thousand     |              |
| Nevada     |         | -\$9,931 Thousand | -18.99 %       | \$42,628 Thousand  | \$52,619 Thousand  | -\$3,001 Thousand    |              |
| Oregon     |         | \$763 Thousand    | 0.93 %         | \$82,770 Thousand  | \$82,007 Thousand  | \$8,372 Thousand     |              |

To the right of the table, the 'Available Items' pane is open, showing various data items categorized under 'Accounts', 'Dimensions', and 'Rows'. Under 'Accounts', 'Accounts' is checked. Under 'Dimensions', 'Currency', 'Time', 'Location', and 'Product' are listed. Under 'Rows', 'Location' is selected.

Congratulations! You Have completed the Exercise 2.

### ***Summary***

**You Have Successfully Completed the Exercise!**

**You are now able to:**

- Assign Model to Table and run the application
- Use and explore the Generic Template with all his available features
- Use the Select Data Model Dialog in order to select a Model at Start Time

# ANA362 EXERCISE 3

## Overview

**Estimated time: [45] minutes**

### Objective

With this exercise we are going to create a simple feedback to ask users to enter the rating of a web page and then calculate the average score of this web page.

You are going to leverage the responsive capability of analytics designer and integration with SAC planning capability to implement this scenario.

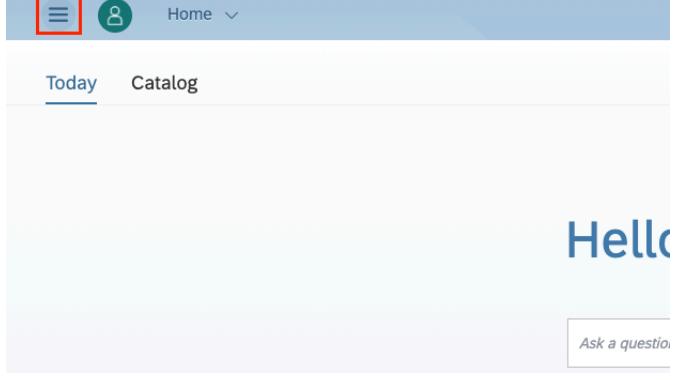
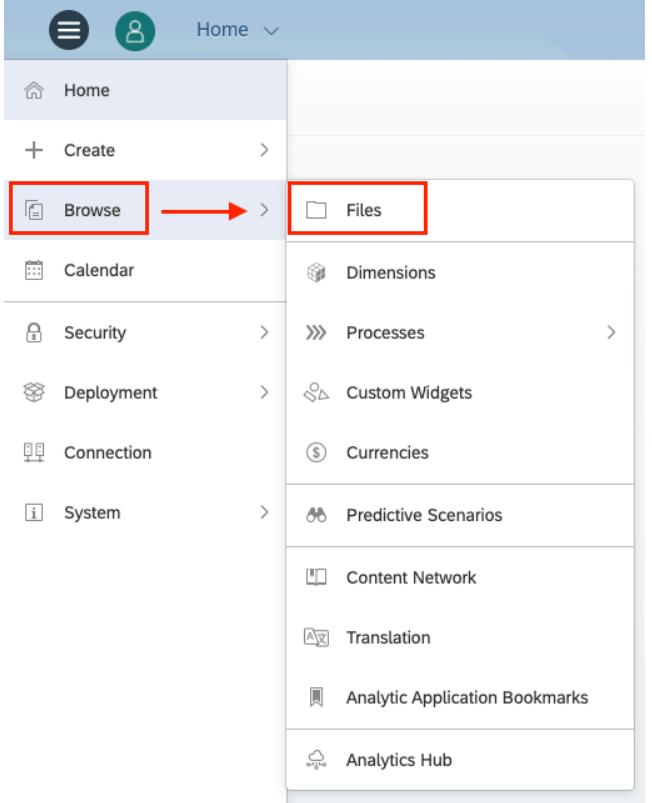
### Exercise Description

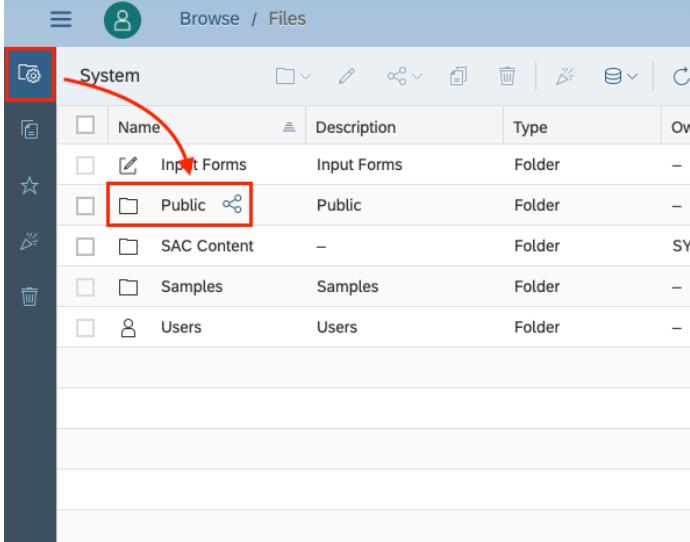
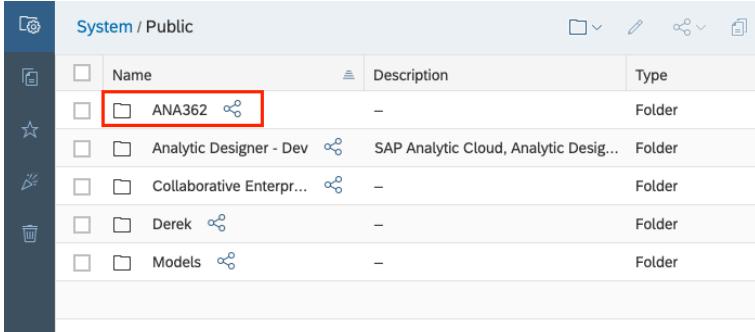
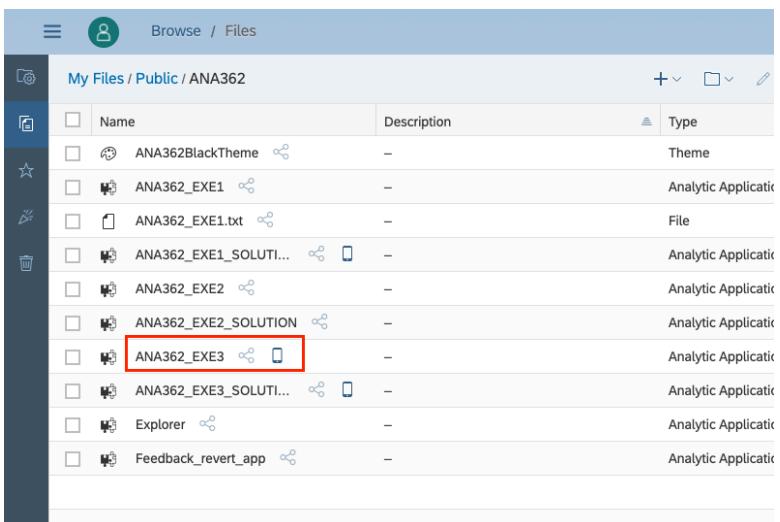
**You are going to execute the following steps within this exercise**

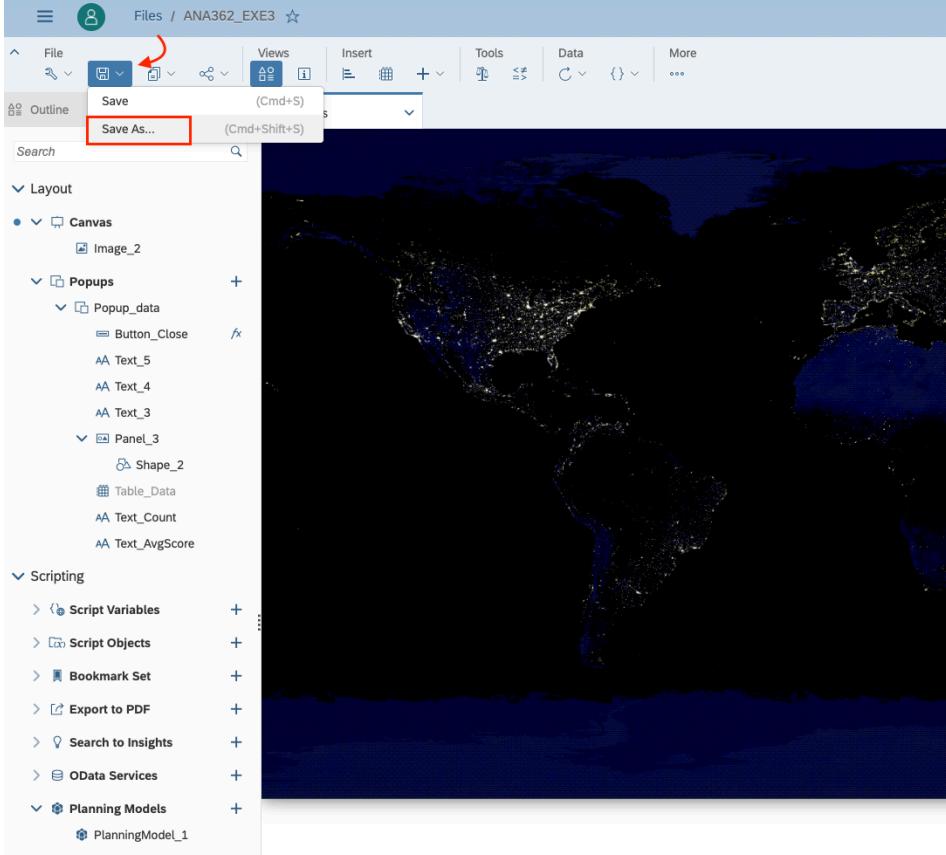
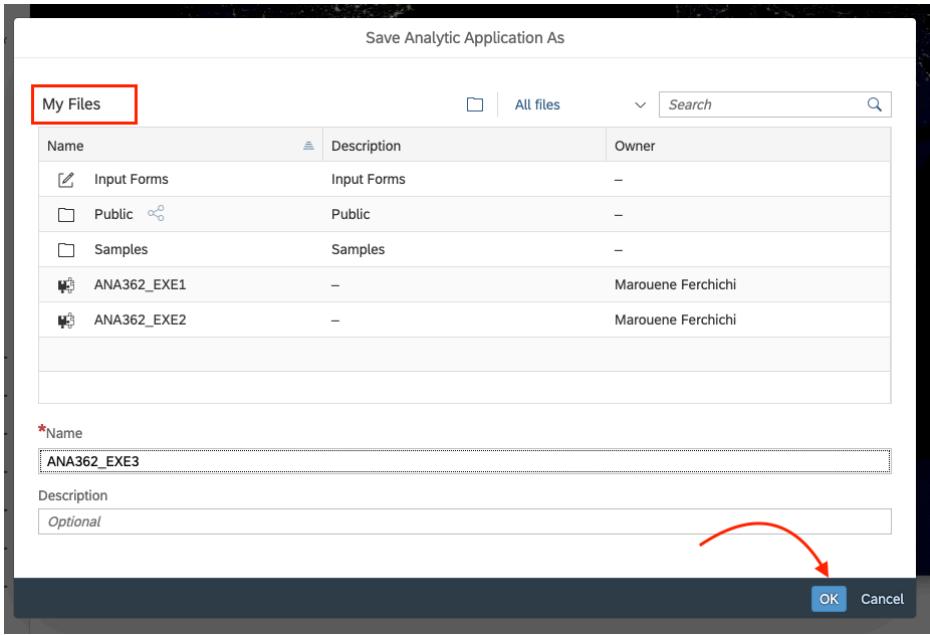
- Build a responsive application
- Create the Master data
- Enter Planning data

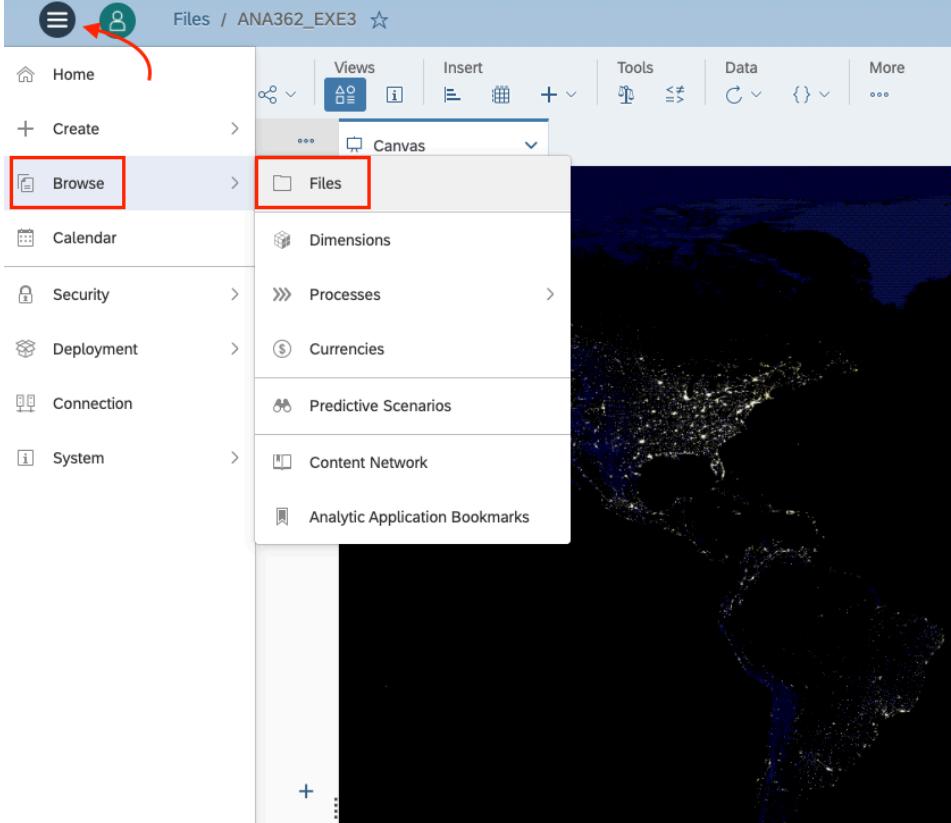
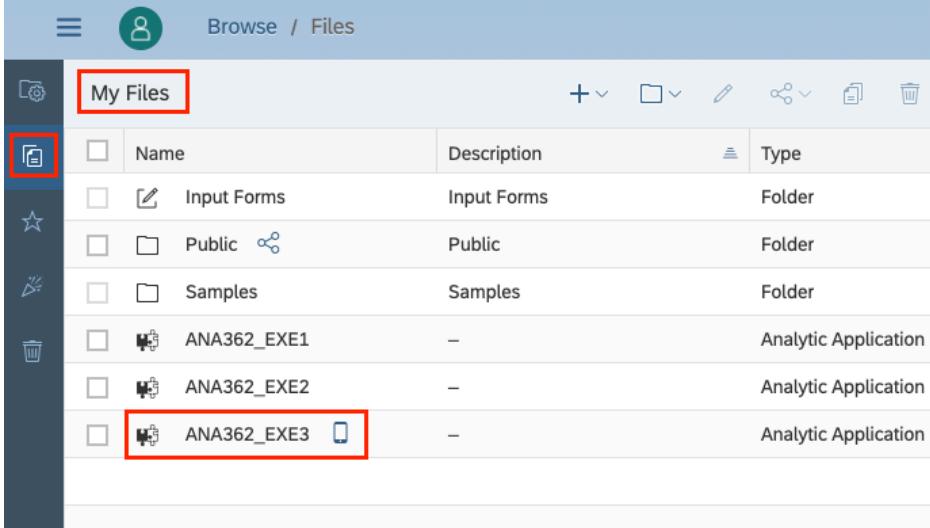
**You will start with a pre-configured application. The popup, planning table part are already configured for you. You need to add the following parts into the application**

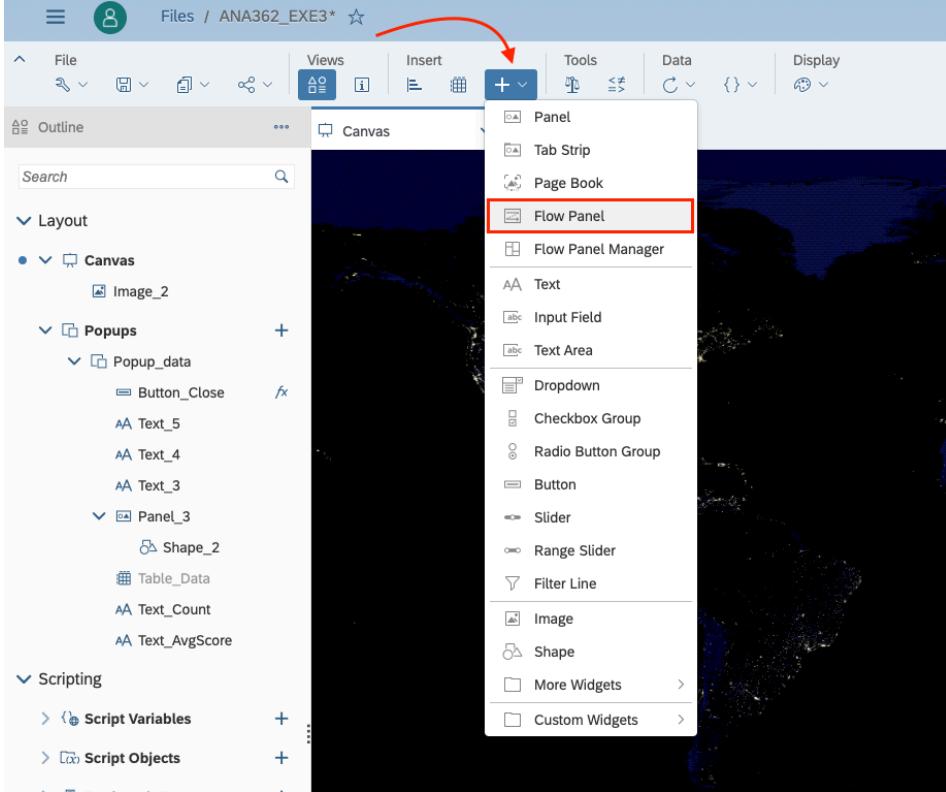
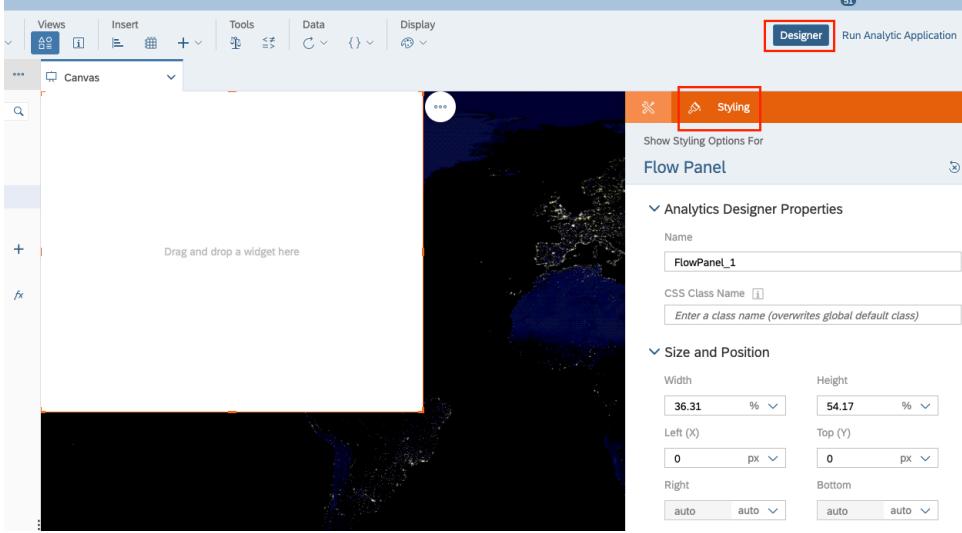
- Create flow panels (make the flow panel behaves like a feedback form):
  - adding name,
  - email,
  - telephone number,
  - rated score by using slider,
  - Comments
  - Send button
- Use the script APIs to add the logic of calculation of average score of this web page
  - Use create member API to create the master data (name, email etc.) in the planning table
  - Use setUserInput API to enter the key figure score into the planning table
  - Use script API to calculate the average score based on the count of master data and score

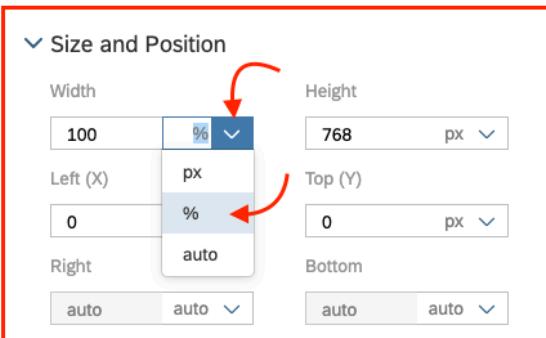
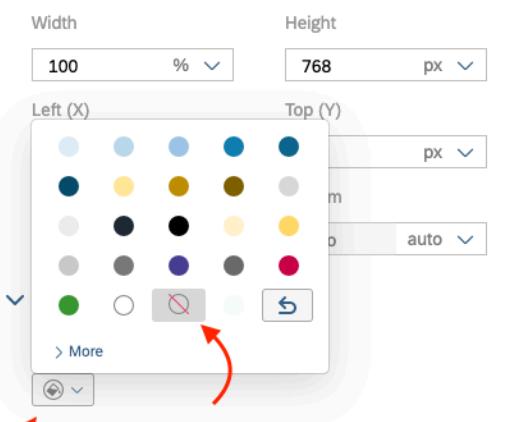
| Explanation                                                                                             | Screenshot                                                                          |
|---------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <p>1. Click on the <b>Main Menu</b> icon</p>                                                            |   |
| <p>2. Select <b>Browse</b> and then <b>Files</b> to be able to select your analytical applications.</p> |  |

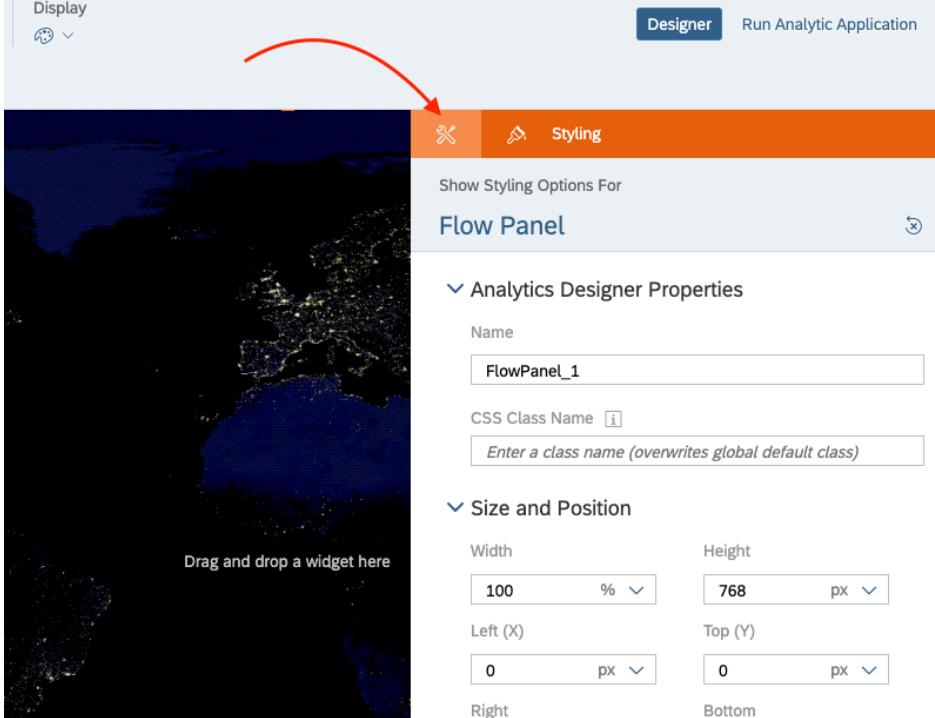
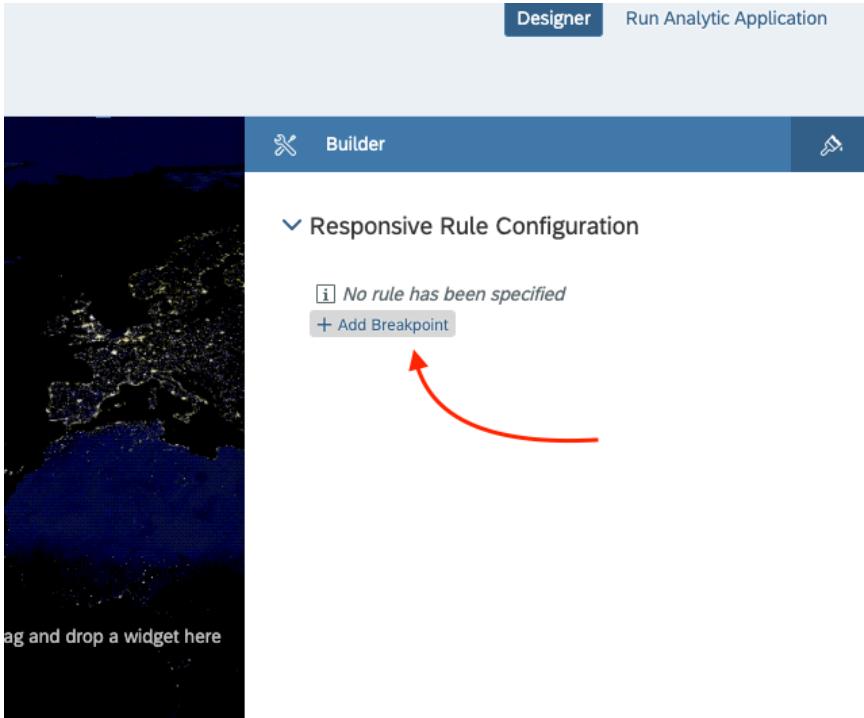
| Explanation                                                                                                          | Screenshot                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>3. Select the icon <b>System</b>, and then open the folder <b>Public</b>.</p>                                     |  <p>The screenshot shows the SAP Fiori Launchpad interface. On the left, there is a vertical toolbar with icons for Home, System, Favorites, Analytics, and Delete. The 'System' icon is highlighted with a red box. To its right, the main area displays a table titled 'Browse / Files'. The first row is labeled 'System' and contains a folder icon, the name 'Input Forms', a description 'Input Forms', a type 'Folder', and a status '-'. Below it, the second row is highlighted with a red box and contains a folder icon, the name 'Public', a description 'Public', a type 'Folder', and a status '-'. Other rows include 'SAC Content', 'Samples', and 'Users'.</p> |
| <p>4. Navigate to the folder <b>ANA362</b></p>                                                                       |  <p>The screenshot shows the 'System / Public' view. The left sidebar shows the 'Public' folder expanded, revealing its contents. The first item in the list is 'ANA362', which is also highlighted with a red box. Other items listed include 'Analytic Designer - Dev', 'Collaborative Enterpr...', 'Derek', and 'Models'.</p>                                                                                                                                                                                                                                                                                                                                               |
| <p>5. Click on the exercise <b>ANA362_EXE3</b> to open it and then you will save it with <b>My Files</b> folder.</p> |  <p>The screenshot shows the 'My Files / Public / ANA362' view. The left sidebar shows the 'ANA362' folder expanded, revealing its contents. The third item in the list is 'ANA362_EXE3', which is highlighted with a red box. Other items listed include 'ANA362BlackTheme', 'ANA362_EXE1', 'ANA362_EXE1.txt', 'ANA362_EXE1_SOLUTION', 'ANA362_EXE2', 'ANA362_EXE2 SOLUTION', 'ANA362_EXE3', 'ANA362_EXE3 SOLUTION', 'Explorer', and 'Feedback_revert_app'.</p>                                                                                                                                                                                                              |

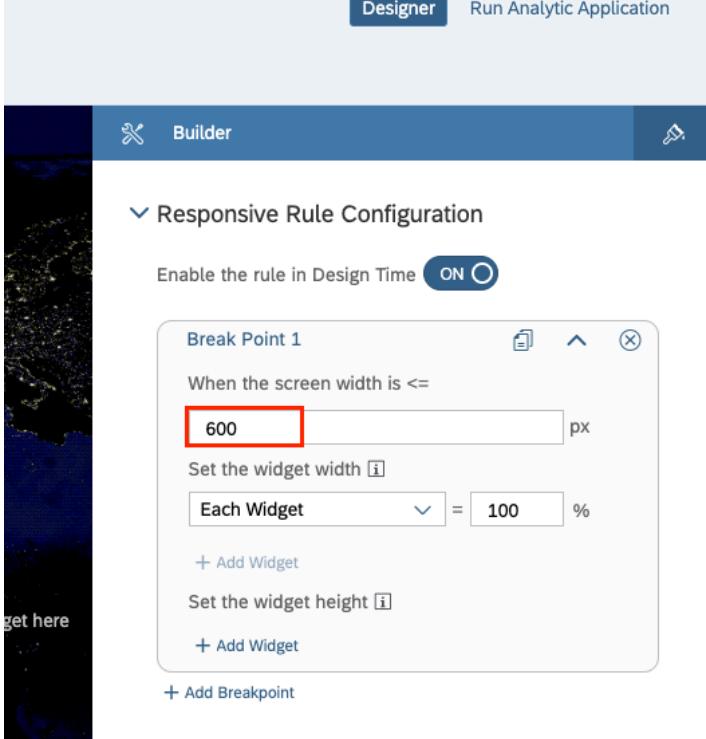
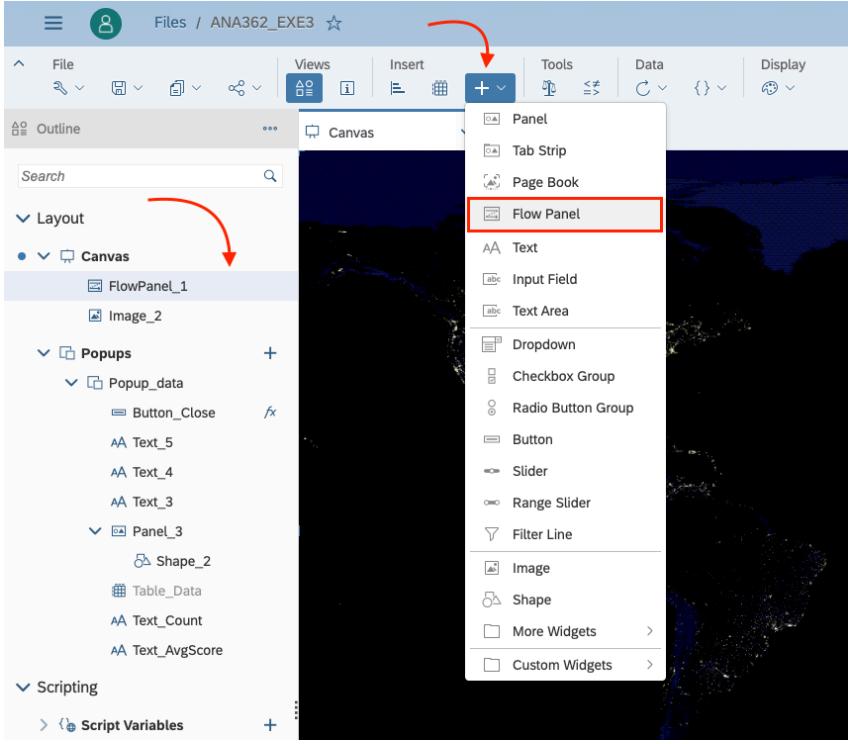
| Explanation                                                                                                                                                                                                                                            | Screenshot                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <p>6. Before you start the different steps of the exercise, first of all <b>YOU SHOULD</b> save the application under <b>My Files</b> and rename it so you can work on your own application.</p> <p>Click on the <b>Save</b> icon → <b>Save As</b></p> |   |
| <p>7. Be sure that you are under the folder <b>My Files</b>.</p> <p>Press <b>OK</b> and the application will be saved under your private folder <b>My Files</b></p>                                                                                    |  |

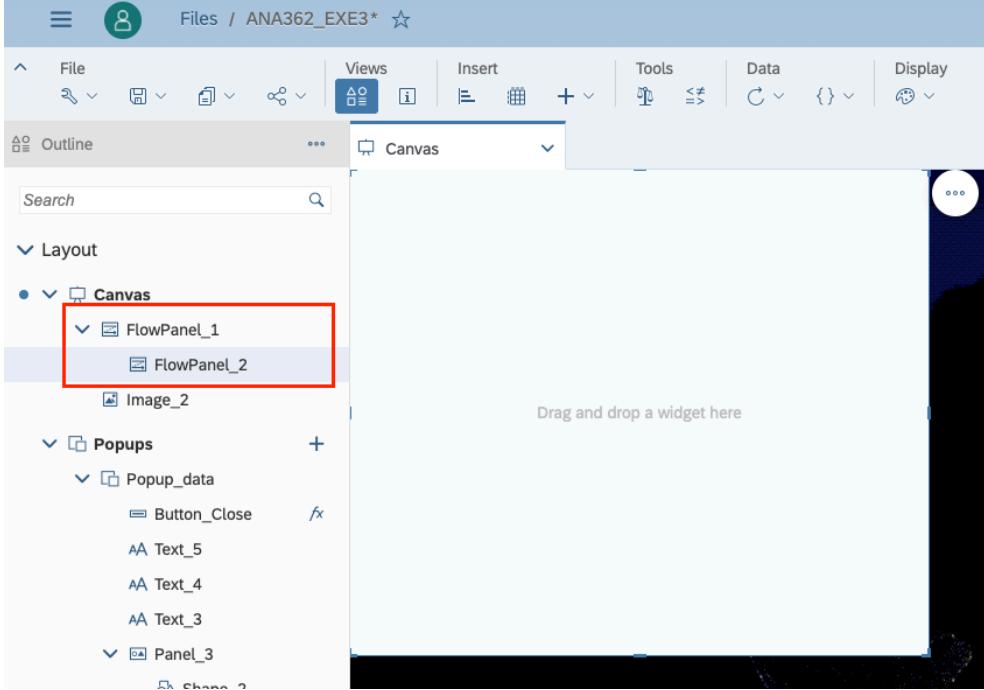
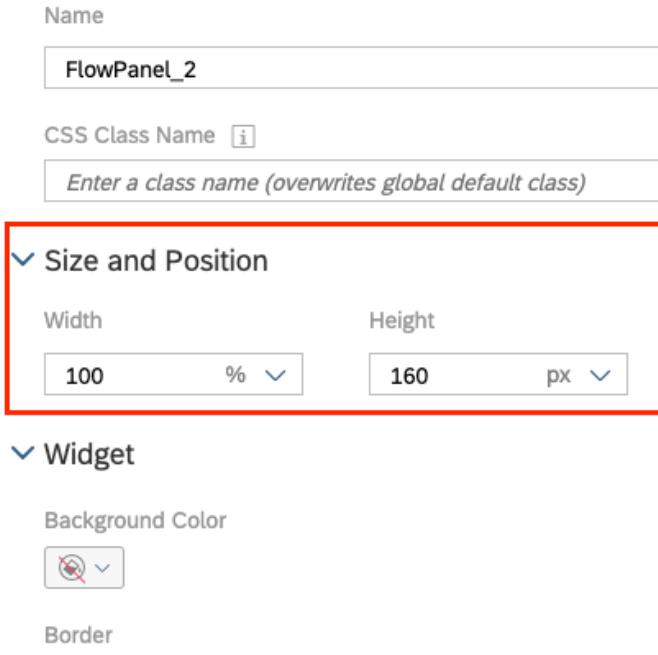
| Explanation                                                                                    | Screenshot                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                      |             |      |             |             |        |        |        |        |         |         |        |             |   |                      |             |   |                      |                    |   |                      |
|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------|------|-------------|-------------|--------|--------|--------|--------|---------|---------|--------|-------------|---|----------------------|-------------|---|----------------------|--------------------|---|----------------------|
| <p>8. Now you can navigate back to <b>My Files</b> again in order to see your application.</p> |  <p>The screenshot shows the SAP Fiori Launchpad interface. The top navigation bar has a user icon with a red box around it. Below the navigation bar, there is a list of items: Home, Create, Browse, Calendar, Security, Deployment, Connection, and System. The 'Browse' item is highlighted with a red box. To its right, a dropdown menu is open, also showing 'Browse' with a red box around it, followed by 'Canvas' and 'Files'. The 'Files' option is also highlighted with a red box. The background features a map of North America with city lights.</p>                                                                                                                                                                                                                                                                         |                      |             |      |             |             |        |        |        |        |         |         |        |             |   |                      |             |   |                      |                    |   |                      |
| <p>9. Click on the exercise <b>ANA362_EXE3</b> to open it within <b>My Files</b> folder.</p>   |  <p>The screenshot shows the 'My Files' list view. The title bar says 'Browse / Files' and the left sidebar has a 'My Files' button with a red box around it. The main area displays a table with columns: Name, Description, and Type. The table contains the following data:</p> <table border="1"> <thead> <tr> <th>Name</th> <th>Description</th> <th>Type</th> </tr> </thead> <tbody> <tr> <td>Input Forms</td> <td>Input Forms</td> <td>Folder</td> </tr> <tr> <td>Public</td> <td>Public</td> <td>Folder</td> </tr> <tr> <td>Samples</td> <td>Samples</td> <td>Folder</td> </tr> <tr> <td>ANA362_EXE1</td> <td>-</td> <td>Analytic Application</td> </tr> <tr> <td>ANA362_EXE2</td> <td>-</td> <td>Analytic Application</td> </tr> <tr> <td><b>ANA362_EXE3</b></td> <td>-</td> <td>Analytic Application</td> </tr> </tbody> </table> | Name                 | Description | Type | Input Forms | Input Forms | Folder | Public | Public | Folder | Samples | Samples | Folder | ANA362_EXE1 | - | Analytic Application | ANA362_EXE2 | - | Analytic Application | <b>ANA362_EXE3</b> | - | Analytic Application |
| Name                                                                                           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Type                 |             |      |             |             |        |        |        |        |         |         |        |             |   |                      |             |   |                      |                    |   |                      |
| Input Forms                                                                                    | Input Forms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Folder               |             |      |             |             |        |        |        |        |         |         |        |             |   |                      |             |   |                      |                    |   |                      |
| Public                                                                                         | Public                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Folder               |             |      |             |             |        |        |        |        |         |         |        |             |   |                      |             |   |                      |                    |   |                      |
| Samples                                                                                        | Samples                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Folder               |             |      |             |             |        |        |        |        |         |         |        |             |   |                      |             |   |                      |                    |   |                      |
| ANA362_EXE1                                                                                    | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Analytic Application |             |      |             |             |        |        |        |        |         |         |        |             |   |                      |             |   |                      |                    |   |                      |
| ANA362_EXE2                                                                                    | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Analytic Application |             |      |             |             |        |        |        |        |         |         |        |             |   |                      |             |   |                      |                    |   |                      |
| <b>ANA362_EXE3</b>                                                                             | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Analytic Application |             |      |             |             |        |        |        |        |         |         |        |             |   |                      |             |   |                      |                    |   |                      |

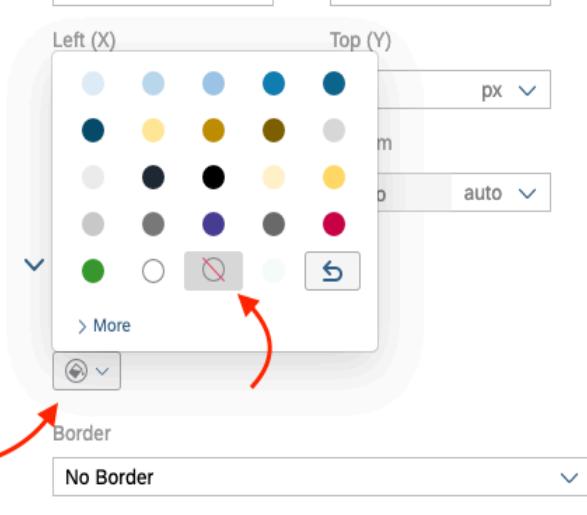
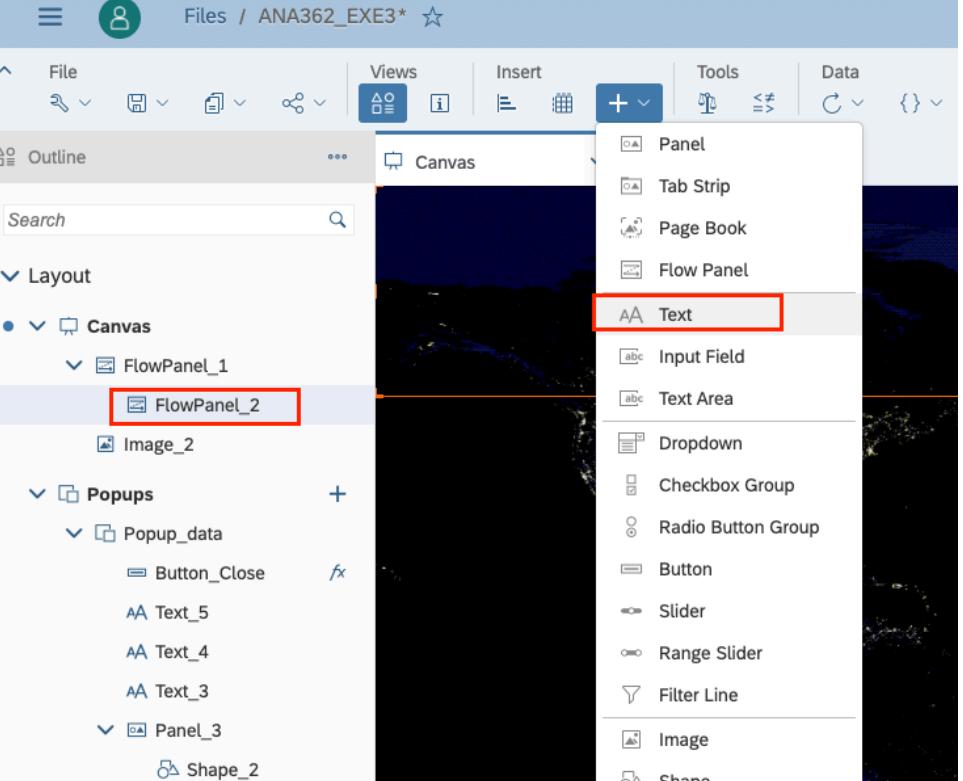
| Explanation                                                                                                                                  | Screenshot                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <p>10. Let's start by adding the first <b>Flow_Panel</b></p> <p>Under the Insert tool bar, press the + sign and select <b>Flow Panel</b></p> |   |
| <p>11. Let's configure the Style of the first <b>Flow Panel</b>.</p> <p>Select the Flow Panel and open the <b>Designer</b> Panel.</p>        |  |

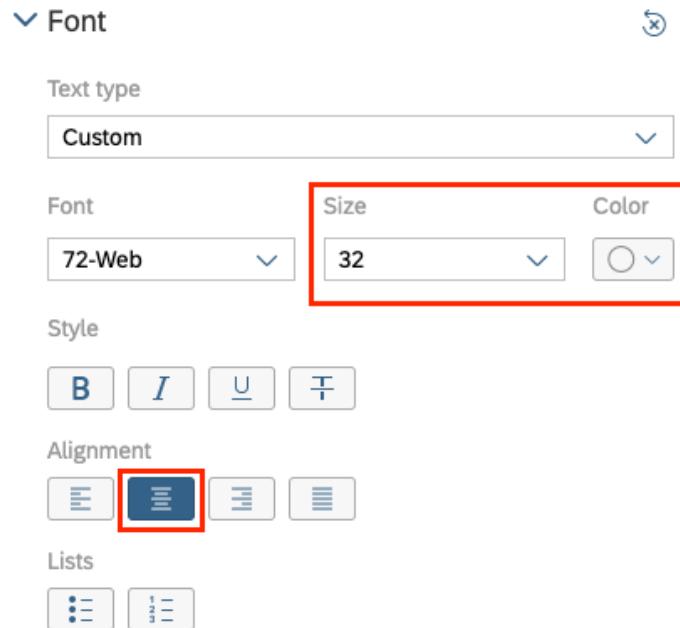
| Explanation                                                                                                                            | Screenshot                                                                                                                                                                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>12. Change the <b>Width</b> and the <b>Height</b> as shown in the Screenshot.</p> <p>Width: <b>100%</b><br/>Height:<b>768px</b></p> |  <p><b>Size and Position</b></p> <p>Width: 100 %</p> <p>Height: 768 px</p> <p>Left (X): 0 px</p> <p>Top (Y): 0 px</p> <p>Right: auto</p> <p>Bottom: auto</p> |
| <p>13. As next change the <b>Background Color</b> of the Flow Panel to <b>Transparent</b></p>                                          |  <p>Width: 100 %</p> <p>Height: 768 px</p> <p>Left (X):</p> <p>Top (Y):</p> <p>Background Color:</p> <p>Border: No Border</p>                              |

| Explanation                                                                                             | Screenshot                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>14. Toggle the <b>Builder</b> Panel in order to set the <b>responsive rule</b> of the Flow Panel</p> |  <p>The screenshot shows the 'Designer' tab selected at the top right. Below it, the 'Display' tab is active. The main area shows a map of Europe with city lights. A placeholder text 'Drag and drop a widget here' is visible. On the right, the 'Builder' panel is open, showing 'Analytics Designer Properties' with a name 'FlowPanel_1' and a CSS class input field. It also shows 'Size and Position' settings for width (100%), height (768px), left (0px), top (0px), right, and bottom.</p> |
| <p>15. As next let's add a Breakpoint by clicking + Add Breakpoint</p>                                  |  <p>The screenshot shows the 'Builder' tab selected at the top right. The main area shows the same map and placeholder text as before. The 'Builder' panel now includes a 'Responsive Rule Configuration' section with a note 'No rule has been specified' and a prominent '+ Add Breakpoint' button. A red arrow highlights this button.</p>                                                                                                                                                        |

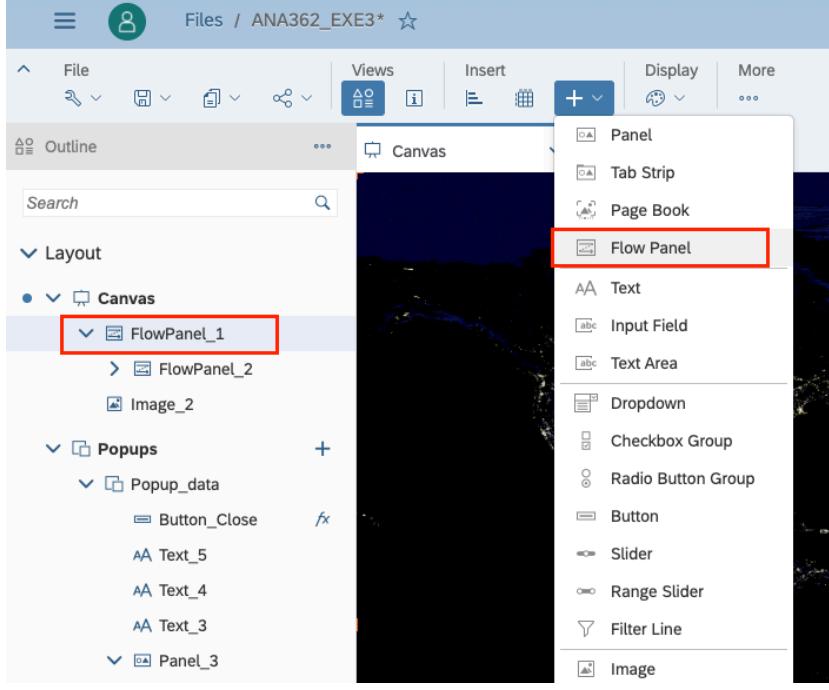
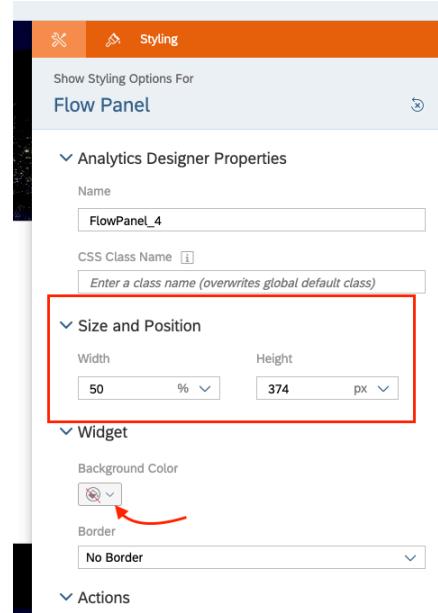
| Explanation                                                                                                                                                                      | Screenshot                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>16. Set the Break Point 1 to <b>600</b> as shown in the screenshot.</p>                                                                                                       |  <p>The screenshot shows the 'Responsive Rule Configuration' dialog in the Designer. It has a 'Break Point 1' section. The 'When the screen width is &lt;=' field contains '600'. Below it, under 'Set the widget width', there is a dropdown 'Each Widget' followed by '= 100 %'. There are also '+ Add Widget' and '+ Add Breakpoint' buttons.</p> |
| <p>17. As next we will add a second Flow Panel <b>under</b> the first one.</p> <p>For that select the first Flow Panel and then Click the (+) and add the second flow panel.</p> |  <p>The screenshot shows the Builder interface with the 'Insert' menu open, highlighting 'Flow Panel'. The 'Outline' panel on the left shows a tree structure with 'FlowPanel_1' and 'Image_2' under 'Canvas'. A red arrow points from the 'Insert' menu to the 'Flow Panel' option.</p>                                                            |

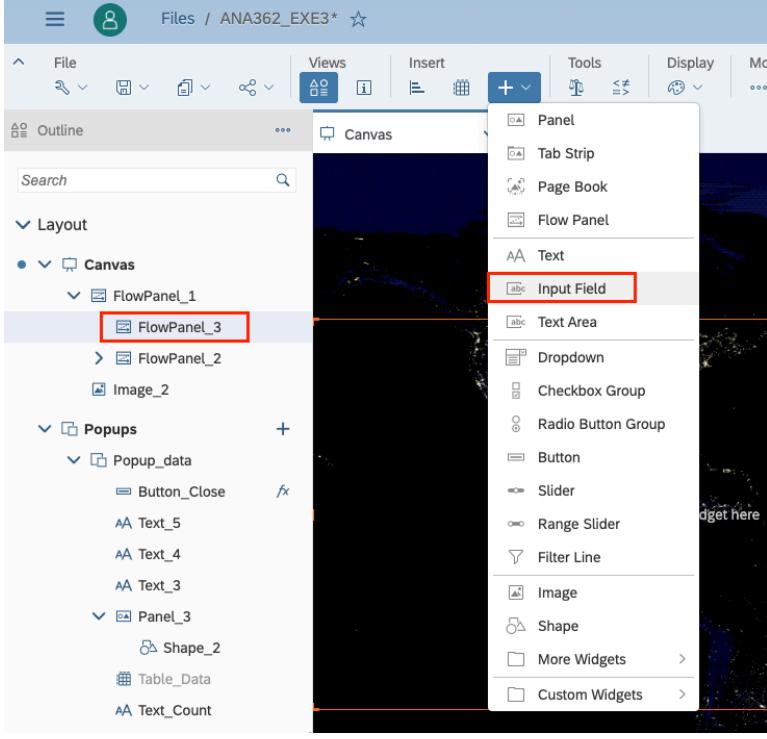
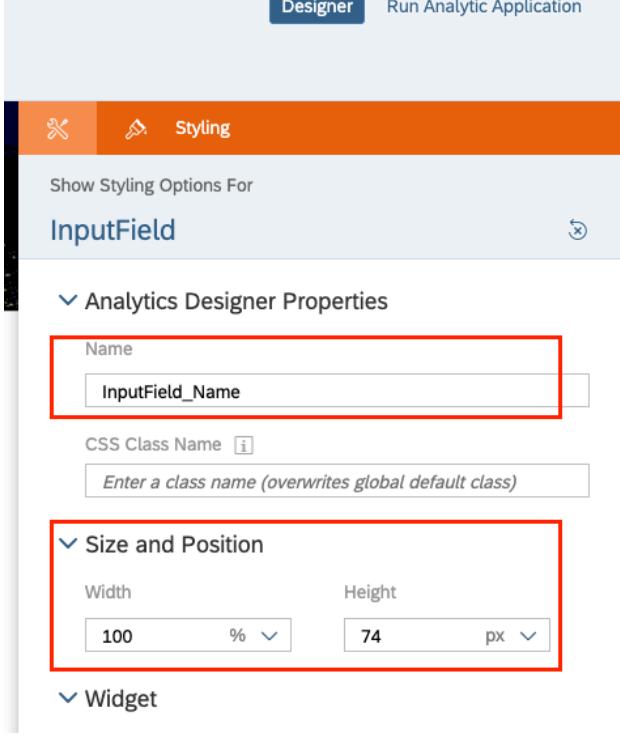
| Explanation                                                                                                                                                             | Screenshot                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>18. As shown the second flow panel was added under the first one.</p> <p>Let's now configure the layout, by opening the designer panel → Styling (Check Step 11)</p> |  <p>The screenshot shows the Designer panel interface. On the left is the Outline panel, which lists the components in the canvas. Under the 'Canvas' section, 'FlowPanel_1' is listed with 'FlowPanel_2' as its child. Both 'FlowPanel_1' and 'FlowPanel_2' are highlighted with a red box. To the right is the main workspace, labeled 'Canvas', with a message 'Drag and drop a widget here'. The top navigation bar includes File, Views, Insert, Tools, Data, and Display tabs.</p> |
| <p>19. Change the <b>Width</b> and the <b>Height</b> as shown in the Screenshot.</p> <p>Width: <b>100%</b><br/>Height:<b>160px</b></p>                                  |  <p>The screenshot shows the Styling panel for the selected component 'FlowPanel_2'. At the top, there are fields for 'Name' (set to 'FlowPanel_2') and 'CSS Class Name'. Below is a section titled 'Size and Position' which is expanded and highlighted with a red box. It contains fields for 'Width' (set to '100%') and 'Height' (set to '160px'). There are also sections for 'Widget', 'Background Color', and 'Border'.</p>                                                     |

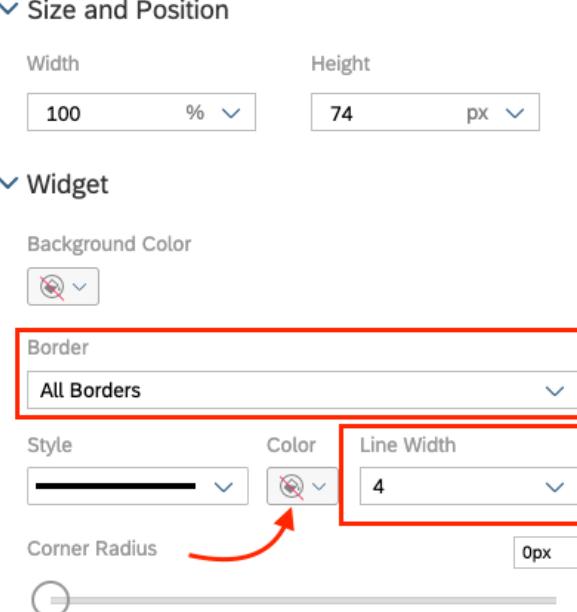
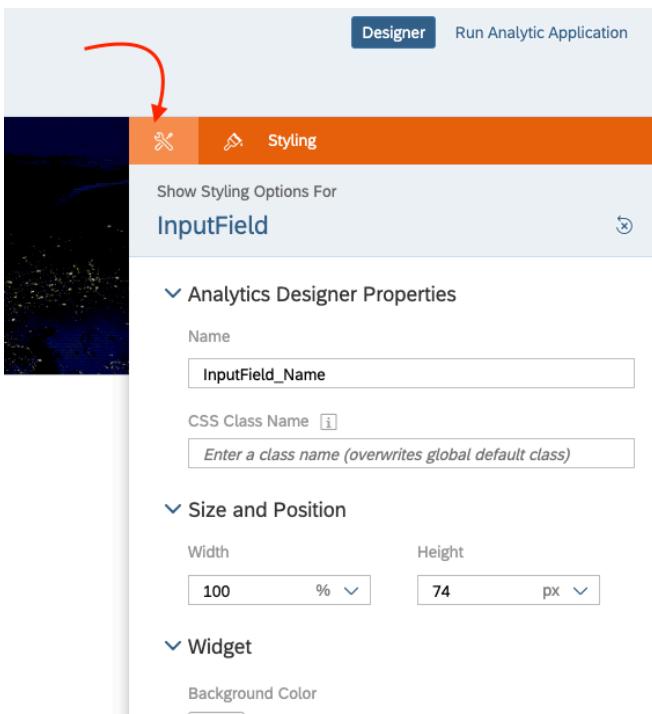
| Explanation                                                                            | Screenshot                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 20. As next change the <b>Background Color</b> of the Flow Panel to <b>Transparent</b> |  <p>The screenshot shows the 'Border' settings for a flow panel. A red arrow points to the 'No Border' dropdown menu, indicating where to click to change the background color.</p>                                                       |
| 21. Now we will add a <b>Text</b> Widget under the second Flow Panel                   |  <p>The screenshot shows the 'Insert' menu open, with the 'Text' option highlighted. A red box highlights the 'Text' item in the list. The left sidebar shows a tree view of the current UI structure, with 'FlowPanel_2' selected.</p> |

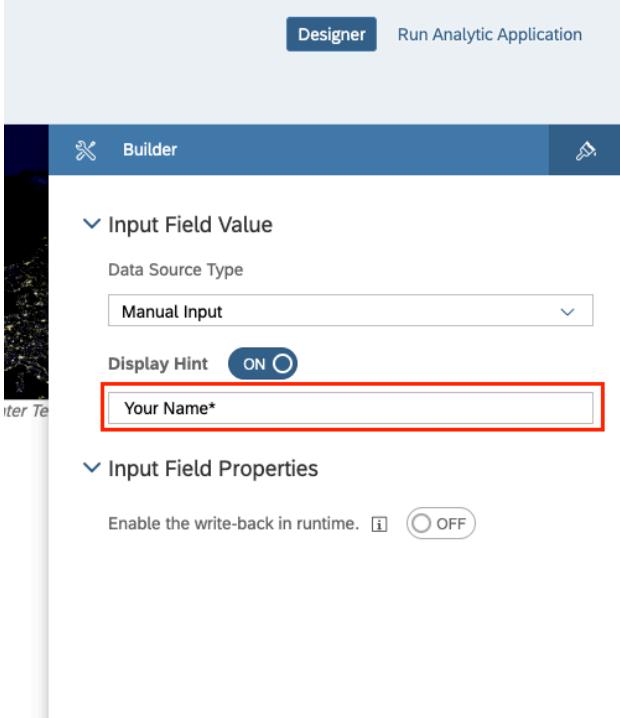
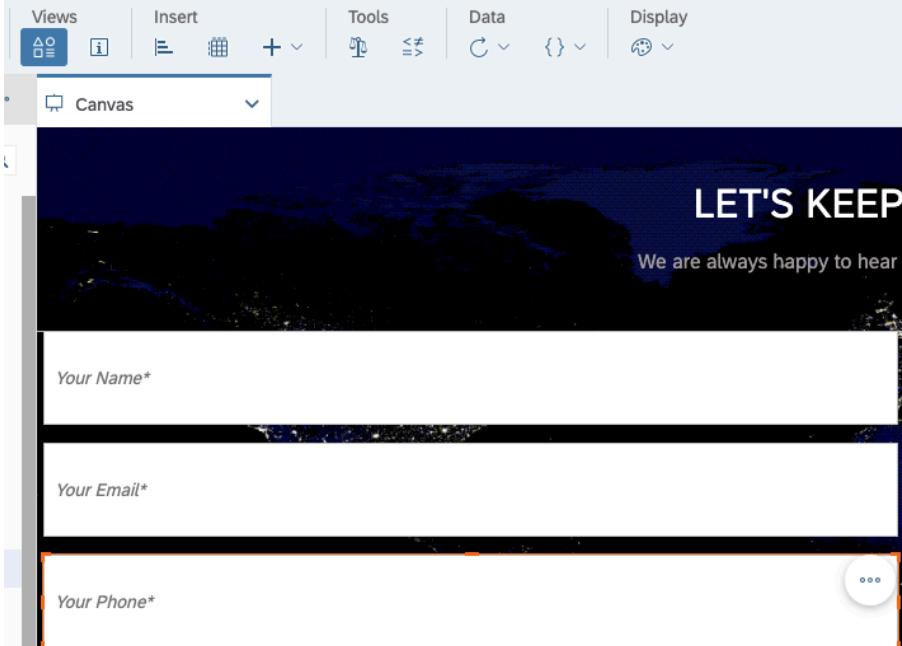
| Explanation                                                                                                                                                                                                                                          | Screenshot                                                                                                                                                                                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>22. Let's now configure the layout, by opening the designer panel → Styling (Check Step 11)</p> <p>23. Change the <b>Width</b> and the <b>Height</b> as shown in the Screenshot.</p> <p>Width: <b>100%</b><br/>Height:<b>160px</b></p>            |  <p>Size and Position</p> <p>Width: 100% Height: 160px</p> <p>Widget</p> <p>Background Color: None</p>                                                                                        |
| <p>24. <b>DOUBLE CLICK</b> inside the Text Widget in order to Style the Font.</p> <p>25. From the same styling panel, lets change the font size to <b>32</b> and the color to white and the alignment to the Middle. As shown in the screenshot.</p> |  <p>Font</p> <p>Text type: Custom</p> <p>Font: 72-Web</p> <p>Size: 32</p> <p>Color: White</p> <p>Style: B I U T</p> <p>Alignment: Middle (highlighted)</p> <p>Lists:</p> <p>Dynamic Text</p> |

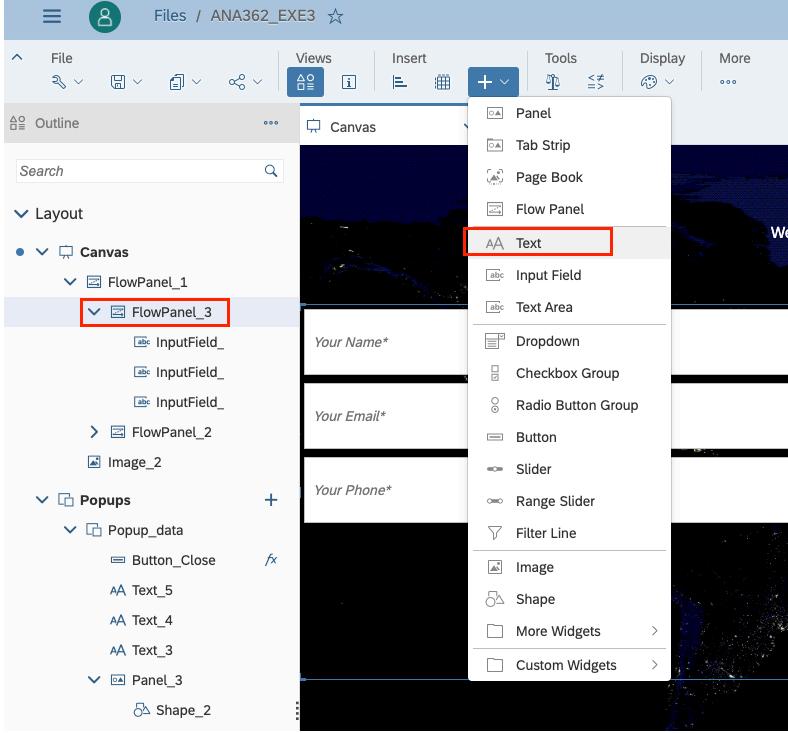
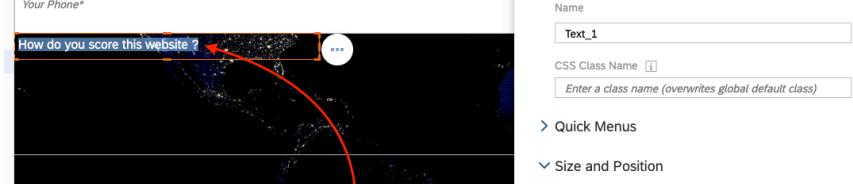
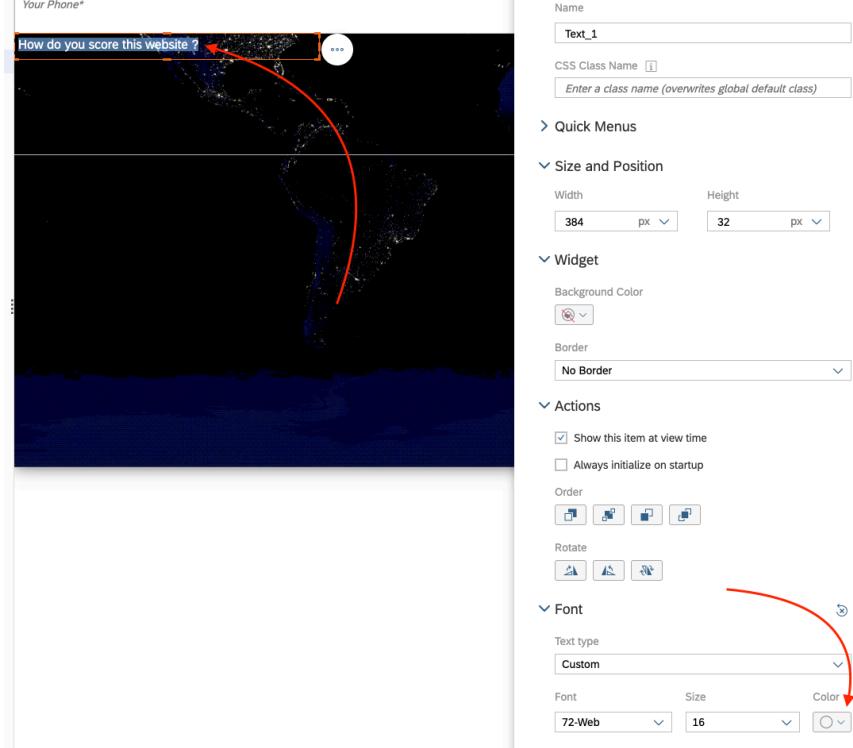
| Explanation                                                                                                                                                   | Screenshot                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>26. Write as a Title:<br/><b>LET'S KEEP IN TOUCH!</b></p> <p>And as a Subtitle:</p> <p><b>We are always happy to hear feedback and answer queries.</b></p> | <p>The screenshot shows a dashboard with a world map background. In the top-left corner, there is a callout box with a blue header containing the text 'LET'S KEEP IN TOUCH!'. Below the header, the subtitle 'We are always happy to hear feedback and answer queries.' is displayed in a smaller font. To the right of the map, there is a sidebar titled 'Styling' with various configuration options for the callout box, such as size, position, and font settings.</p> |
| <p>27. Let's change the font size of the Subtitle to <b>16</b></p>                                                                                            | <p>The screenshot shows the same dashboard setup as the previous one, but the subtitle 'We are always happy to hear feedback and answer queries.' now has a font size of 16. The styling sidebar on the right shows the 'Size' field for the font has been changed from 32 to 16. A red curved arrow points from the previous screenshot to this one, highlighting the change in the subtitle's font size.</p>                                                               |

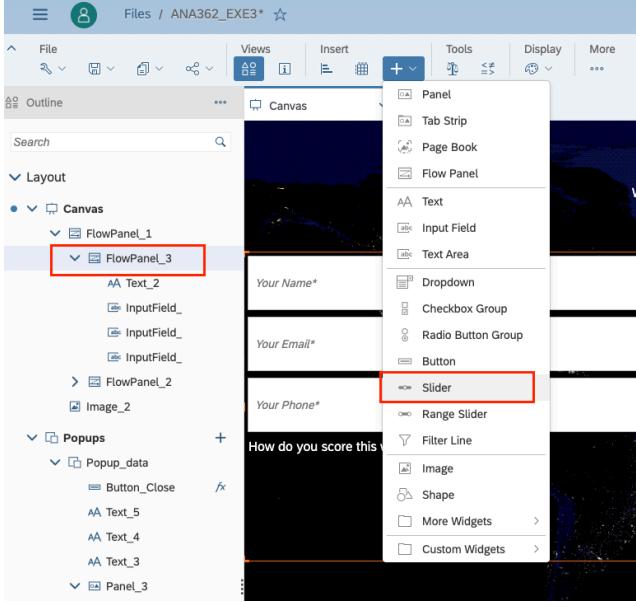
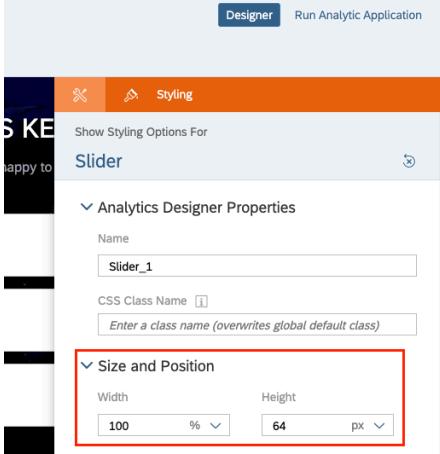
| Explanation                                                                                                                                                                                                                                                                                                                             | Screenshot                                                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <p>28. As next, select the first Flow Panel in order to add a third Flow Panel</p>                                                                                                                                                                                                                                                      |  |
| <p>29. Let's now configure the layout, by opening the designer panel → Styling (Check Step 11)</p> <p>30. Change the <b>Width</b> and the <b>Height</b> as shown in the Screenshot.<br/>Width: <b>50%</b><br/>Height: <b>374px</b></p> <p>31. change the <b>Background Color</b> of the Panel to <b>Transparent</b> (Check Step 20)</p> |  |

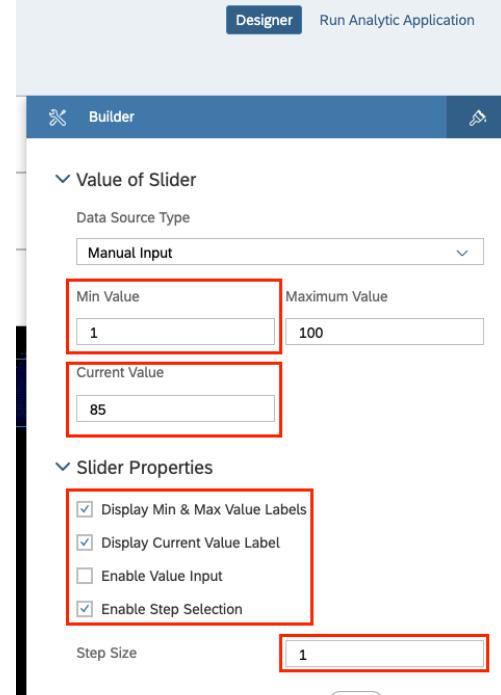
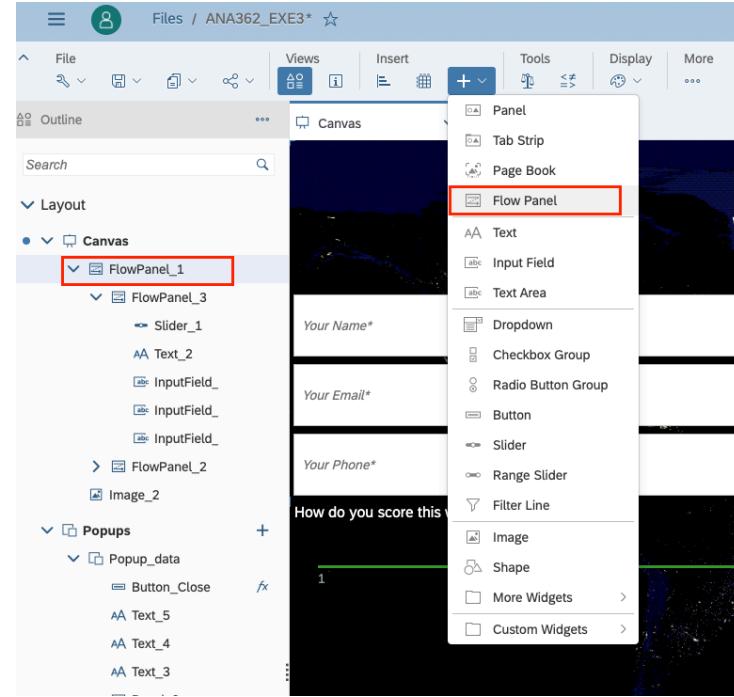
| Explanation                                                                                                                                                                                                                                                                                                   | Screenshot                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>32. As next let's add 3 <b>Input Filed</b> (Name, Email, Phone) under the Third Flow Panel</p> <p>Select the Third Flow Panel and press the (+) sign.</p>                                                                                                                                                  |  <p>The screenshot shows the 'Insert' menu open, with 'Input Field' highlighted and surrounded by a red box. The 'Outline' panel on the left shows a tree structure with 'FlowPanel_3' selected, also highlighted with a red box. The 'Canvas' panel on the right shows a dark background with some UI elements.</p>                                                                                                         |
| <p>33. Let's now configure the layout of the input field, by opening the designer panel → Styling (Check Step 11)</p> <p>34. Change the name to <b>InputField_Name</b></p> <p>35. Change the <b>Width</b> and the <b>Height</b> as shown in the Screenshot.<br/>Width: <b>100%</b><br/>Height:<b>74px</b></p> |  <p>The screenshot shows the 'Styling' panel open for an 'InputField' component. The 'Analytics Designer Properties' section is visible, with the 'Name' field set to 'InputField_Name' (highlighted with a red box). The 'Size and Position' section is also highlighted with a red box, showing 'Width' set to '100%' and 'Height' set to '74px'. Other settings like 'CSS Class Name' and 'Widget' are also visible.</p> |

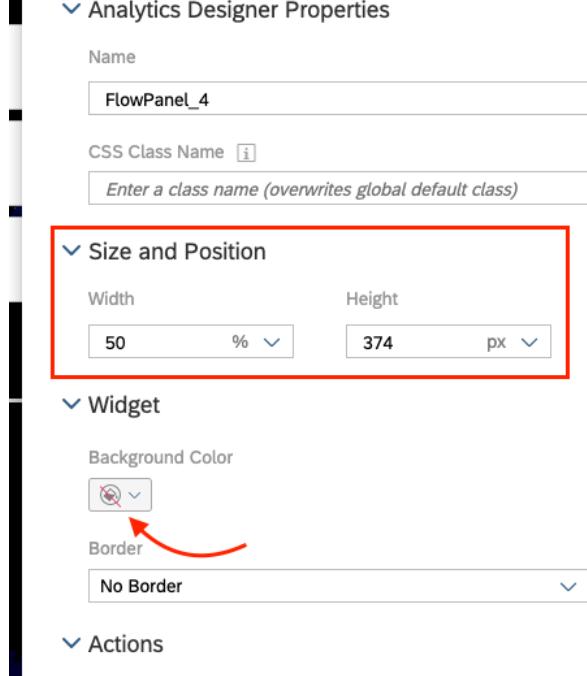
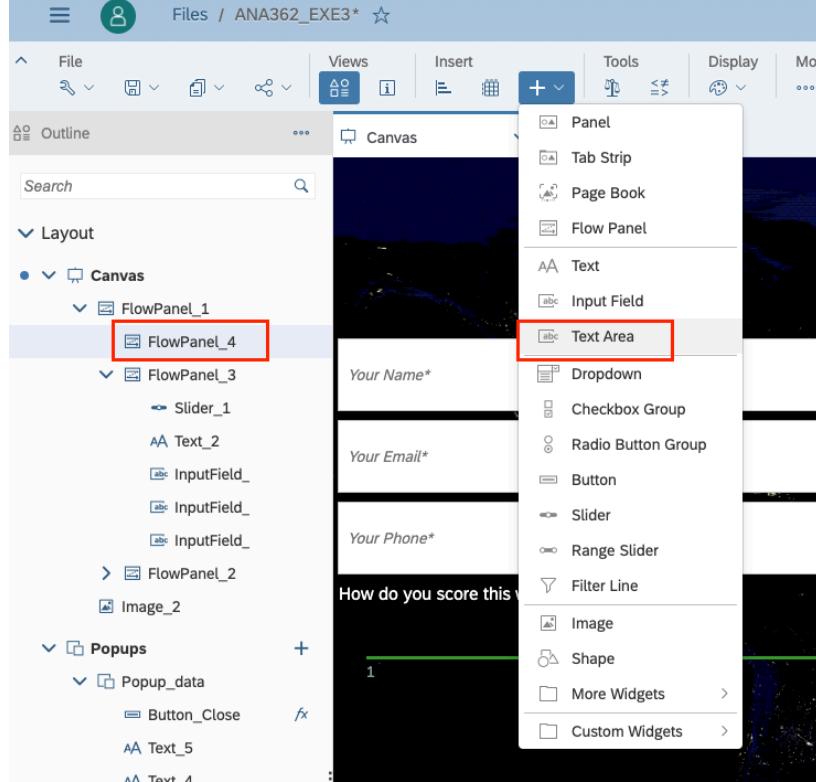
| Explanation                                                                                                                                                                                                                                   | Screenshot                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>36. For better presentation of the <b>Input Field</b>, and in order to have some space between the widgets, select <b>All Borders</b> from the Border list box, a <b>transparent</b> color for the Borders, and a Line <b>Width =4</b></p> |  <p>Size and Position</p> <p>Width: 100 % Height: 74 px</p> <p>Widget</p> <p>Background Color: transparent</p> <p>Border:</p> <ul style="list-style-type: none"> <li>All Borders</li> </ul> <p>Style: Solid</p> <p>Color: transparent</p> <p>Line Width: 4</p> <p>Corner Radius: 0px</p>                                                                              |
| <p>37. Toggle the <b>builder</b> Panel in order to change the display name of the input field</p>                                                                                                                                             |  <p>Designer Run Analytic Application</p> <p>Styling</p> <p>Show Styling Options For<br/>InputField</p> <p>Analytics Designer Properties</p> <p>Name: InputField_Name</p> <p>CSS Class Name: Enter a class name (overwrites global default class)</p> <p>Size and Position</p> <p>Width: 100 % Height: 74 px</p> <p>Widget</p> <p>Background Color: transparent</p> |

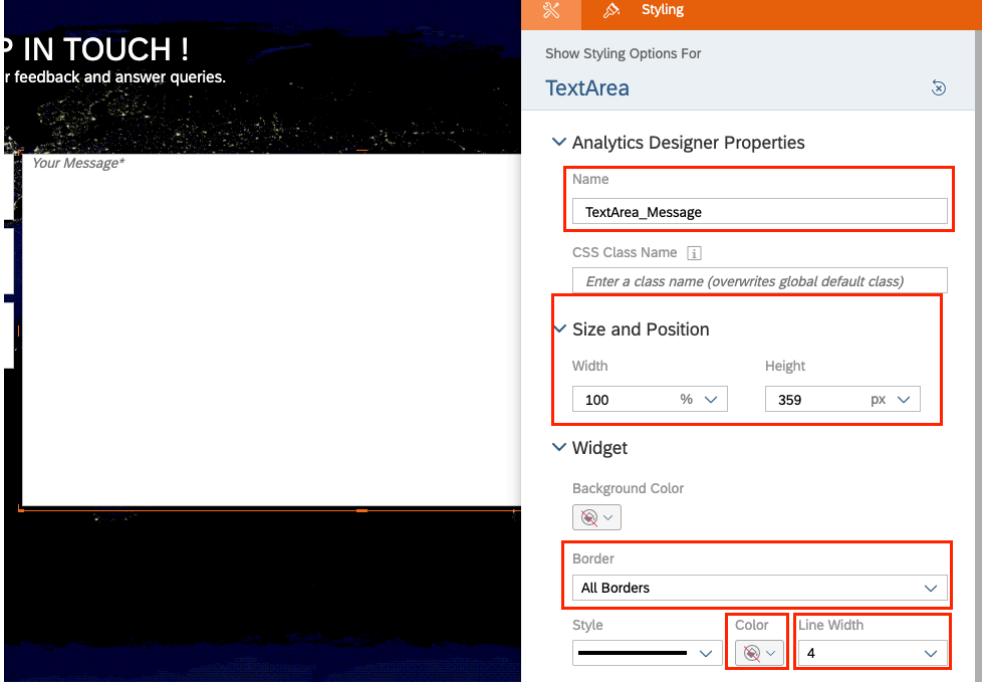
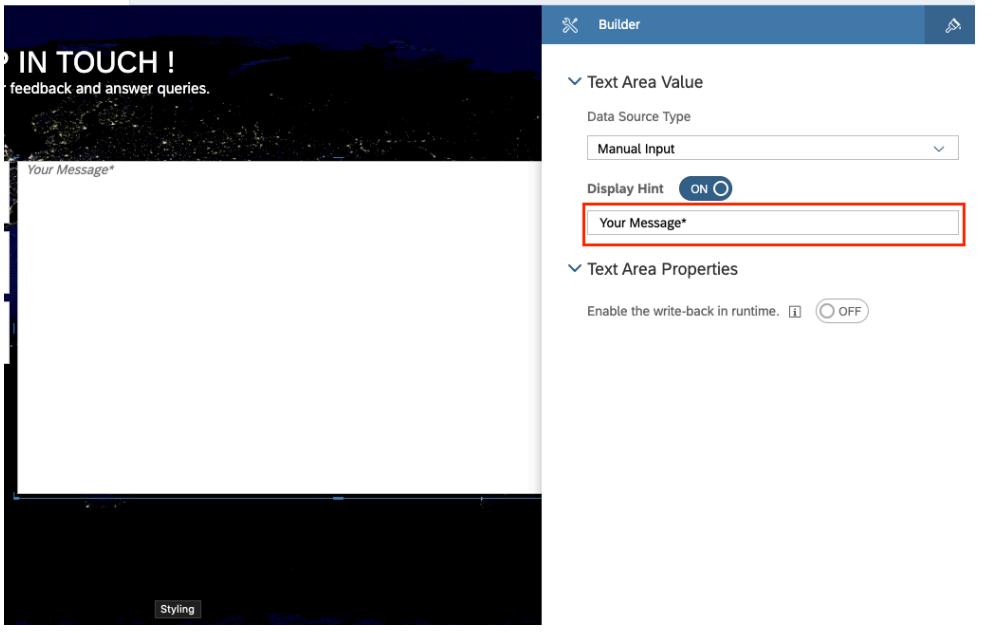
| Explanation                                                                                                                                                                                                                                                                                                                                                       | Screenshot                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>38. Replace the default display name to <b>Your Name*</b> as shown.</p>                                                                                                                                                                                                                                                                                        |  <p>The screenshot shows the Oracle Analytics Designer interface. In the top right, there are buttons for 'Designer' and 'Run Analytic Application'. Below that is a toolbar with icons for 'Views', 'Insert', 'Tools', 'Data', and 'Display'. The main area is titled 'Builder'. Under 'Input Field Value', it shows a 'Data Source Type' dropdown set to 'Manual Input'. A 'Display Hint' switch is turned 'ON'. The 'Your Name*' input field is highlighted with a red box. Below this, under 'Input Field Properties', there is a note about enabling write-back in runtime with a 'OFF' switch.</p>          |
| <p>39. Add 2 other <b>Input_Filed</b> (step 32) and style them like the previous steps (step 33,35,36,37), and change their names (<b>Step 34</b>) to:<br/> <b>InputField_Email</b><br/> <b>InputField_Phone</b></p> <p>Change the default display name (<b>Step 38</b>) of the 2 other input field names to:<br/> <b>Your Email*</b><br/> <b>Your Phone*</b></p> |  <p>The screenshot shows the Oracle Analytics Canvas interface. At the top, there's a toolbar with 'Views', 'Insert', 'Tools', 'Data', and 'Display' tabs. Below the toolbar is a 'Canvas' panel. Inside the canvas, there are three input fields stacked vertically. The first input field is labeled 'Your Name*' and is highlighted with a red box. The second input field is labeled 'Your Email*' and the third is labeled 'Your Phone*'. The background of the canvas features a dark blue image of a landscape with mountains and water, and the text 'LET'S KEEP' and 'We are always happy to hear'.</p> |

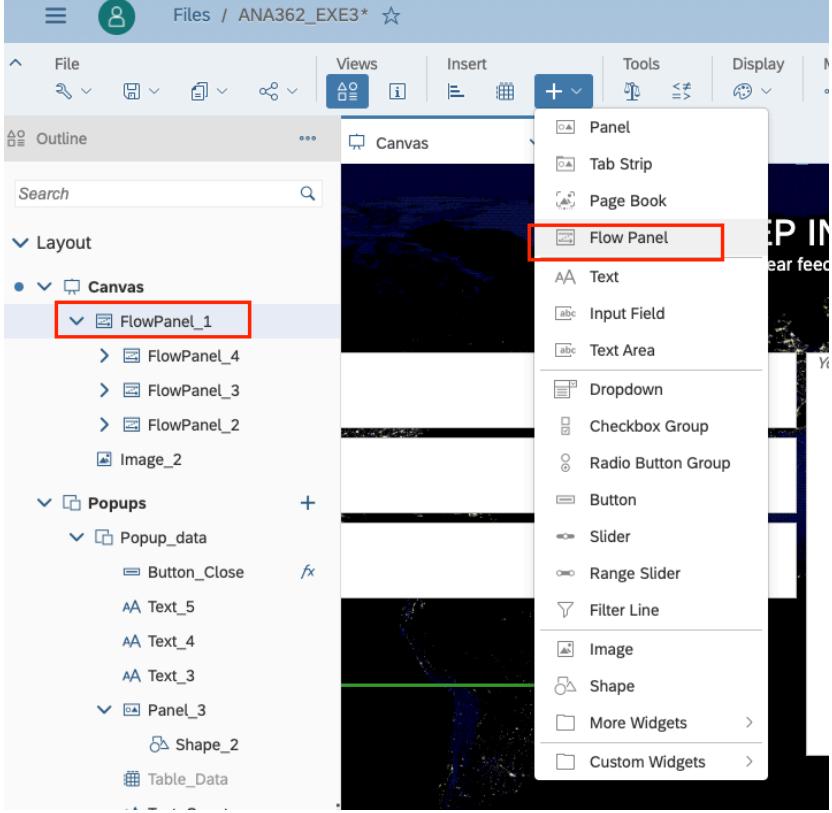
| Explanation                                                                                                                                                                                                                               | Screenshot                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <p>40. As next we will add 2 more widgets under the Third Flow Panel: A <b>Text Widget</b> and a <b>Slider</b>.</p> <p>41. Let's start by adding the Text by selecting the Third Flow Panel and press the (+) and add the <b>Text</b></p> |   |
| <p>42. Let's now configure the layout of the Text, by opening the designer panel → Styling (Check Step 11)</p>                                                                                                                            |  |
| <p>43. Double Click the Default Text and change the <b>color</b> font to <b>White</b></p> <p>How do you score this Website?</p>                                                                                                           |  |
| <p>44. After that replace the default text by:</p> <p>How do you score this Website?</p>                                                                                                                                                  |                                                                                      |

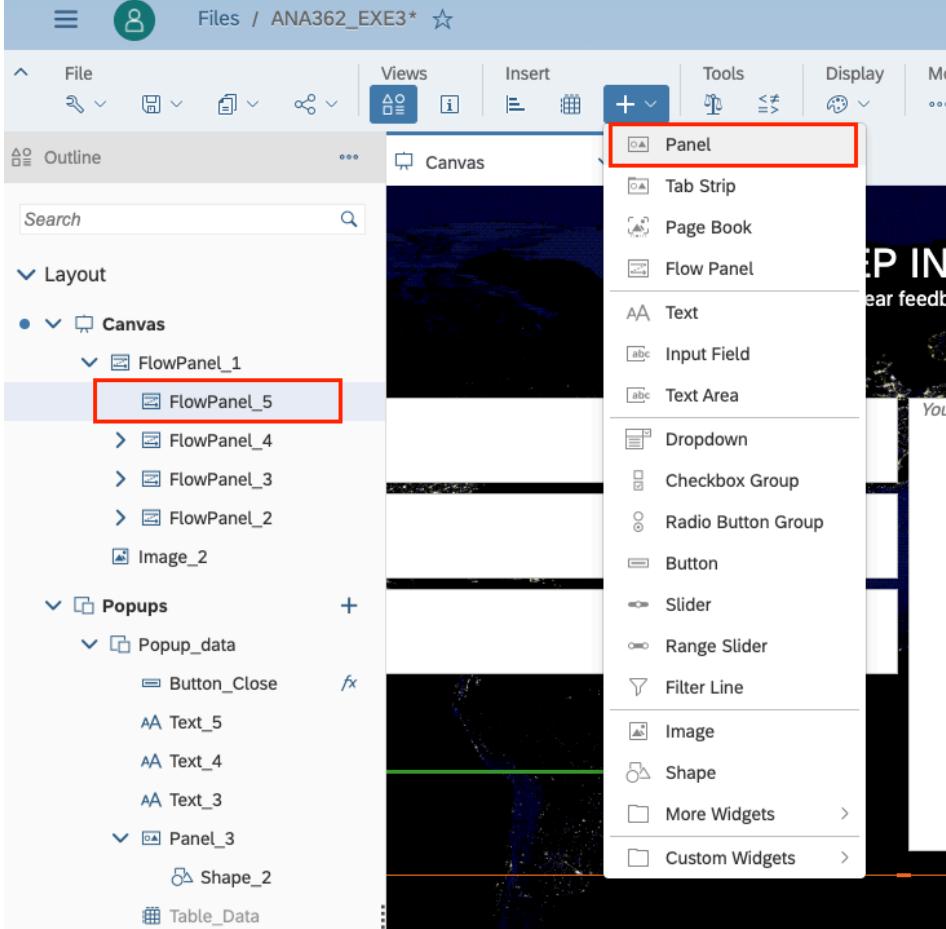
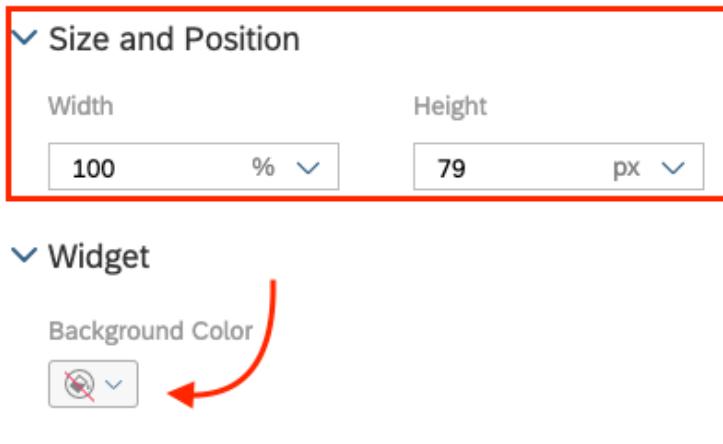
| Explanation                                                                                                                | Screenshot                                                                         |
|----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|
| 45. As next let's add a <b>Slider</b> under the Third Flow Panel                                                           |  |
| 46. Let's now configure the layout of the Slider, by opening the designer panel → Styling (Check Step 11)                  |                                                                                    |
| 47. Change the <b>Width</b> and the <b>Height</b> as shown in the Screenshot.<br>Width: <b>100%</b><br>Height: <b>64px</b> |  |
| 48. Change the Progress Bar Color to Green                                                                                 |                                                                                    |

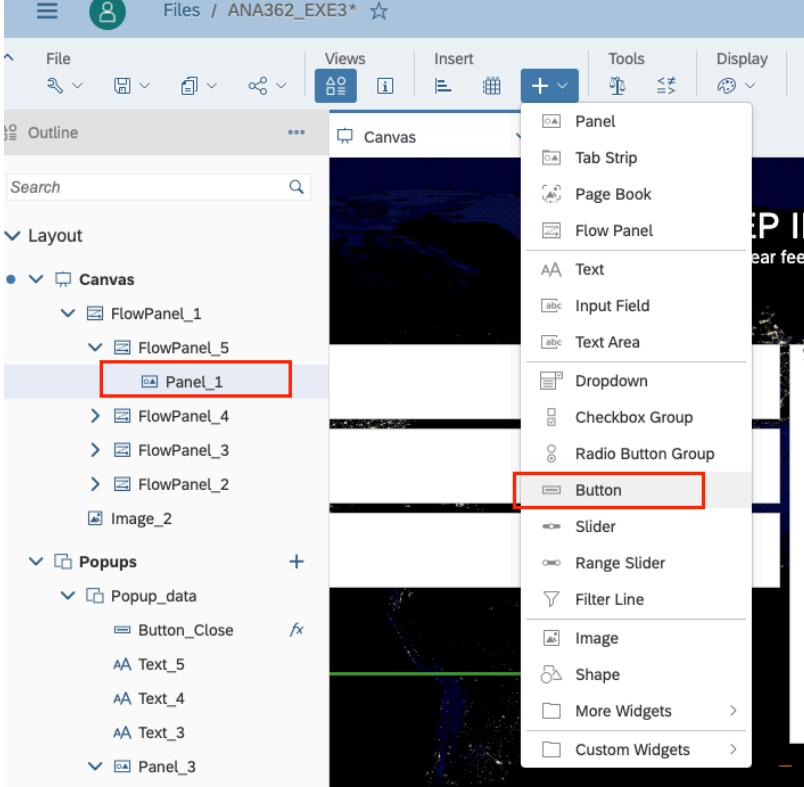
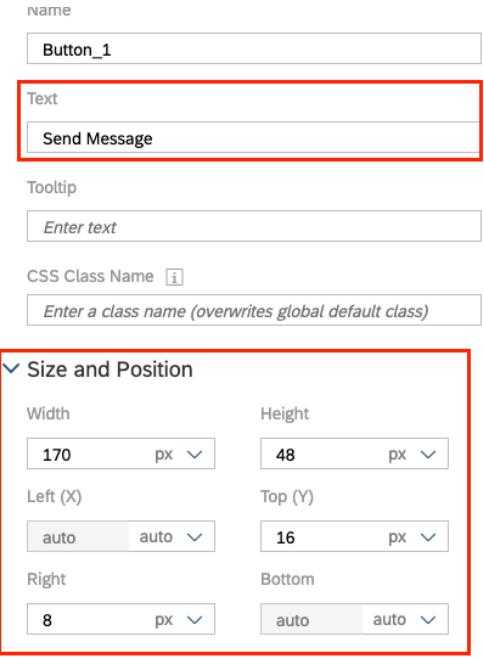
| Explanation                                                                                                                                                                                                                                           | Screenshot                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <p>49. Toggle the Builder Panel (Check the step 48) and configure the Slider as shown:</p> <p><b>Min Value = 1</b><br/> <b>Current Value= 85</b></p> <p><b>Check the display Properties as shown in the screenshot</b></p> <p><b>Step Size= 1</b></p> |    |
| <p>50. Let's add a <b>fourth</b> and last <b>Flow Panel</b> under the first Flow Panel.</p> <p>Press the sign (+) and add the Flow Panel</p>                                                                                                          |  |

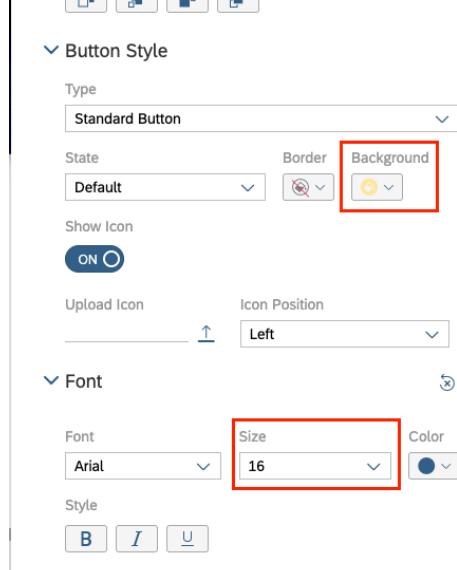
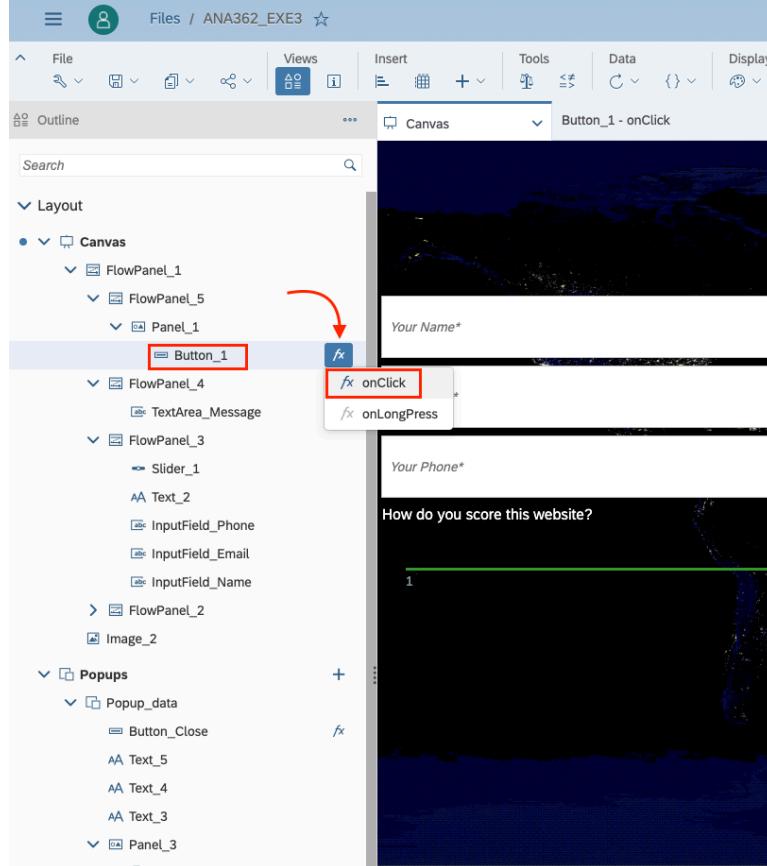
| Explanation                                                                                                                                                                            | Screenshot                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>51. Let's change the layout of fourth Flow Panel from the Styling Panel as shown:</p> <p>Width: <b>50%</b><br/>Height: <b>374px</b></p> <p>Background Color: <b>Transparent</b></p> |  <p><b>Analytics Designer Properties</b></p> <p>Name: FlowPanel_4</p> <p>CSS Class Name: Enter a class name (overwrites global default class)</p> <p><b>Size and Position</b></p> <p>Width: 50 % Height: 374 px</p> <p><b>Widget</b></p> <p>Background Color: No Border</p> <p><b>Actions</b></p>                                                                                                                                                                                                                                                                                                                                                                     |
| <p>52. As next, we will add a <b>Text Area</b> under the Fourth Flow Panel.</p> <p>Select the Fourth Flow Panel and Press the (+) sign and select <b>Text Area</b></p>                 |  <p>Files / ANA362_EXE3* ☆</p> <p>File Views Insert Tools Display More</p> <p>Outline Search</p> <p>Layout Canvas</p> <p>FlowPanel_1 FlowPanel_4 FlowPanel_3 FlowPanel_2 Image_2</p> <p>Popups Popup_data Button_Close Text_5 Text_4</p> <p>+</p> <ul style="list-style-type: none"> <li>Panel</li> <li>Tab Strip</li> <li>Page Book</li> <li>Flow Panel</li> <li><b>Text</b></li> <li>Input Field</li> <li><b>Text Area</b></li> <li>Dropdown</li> <li>Checkbox Group</li> <li>Radio Button Group</li> <li>Button</li> <li>Slider</li> <li>Range Slider</li> <li>Filter Line</li> <li>Image</li> <li>Shape</li> <li>More Widgets</li> <li>Custom Widgets</li> </ul> |

| Explanation                                                                                                                                                                                                                                                                                                                     | Screenshot                                                                           |
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| <p>53. Jump to the Styling Panel and resize the Text Area.</p> <p>Rename the TextArea:<br/><b>TextArea_Message</b></p> <p>Width: <b>100%</b><br/>Height: <b>359px</b></p> <p>Select <b>All Borders</b> from the Border list box, with a <b>transparent</b> border color and a <b>line width</b> equal to 4. (Check step 36)</p> |   |
| <p>54. Toggle the Builder Panel and Change the default Display Hint to: <b>Your Message*</b></p>                                                                                                                                                                                                                                |  |

| Explanation                                                                                                                                                                       | Screenshot                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                             |                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-----------------------------------------------|
| <p>55. Let's add now the last <b>Flow Panel</b> under the First Flow Panel.</p>                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                   |                                             |                                               |
| <p>56. From the Styling Panel, change the size and position of the flow panel.</p> <p>Width: <b>100%</b><br/>Height: <b>222px</b></p> <p>Background Color: <b>Transparent</b></p> | <p><b>Analytics Designer Properties</b></p> <p>Name<br/><input type="text" value="FlowPanel_5"/></p> <p>CSS Class Name<br/><input type="text" value="Enter a class name (overwrites global default class)"/></p> <p><b>Size and Position</b></p> <table border="1"> <tr> <td>Width<br/><input type="text" value="100"/> %</td> <td>Height<br/><input type="text" value="222"/> px</td> </tr> </table> <p><b>Widget</b></p> <p>Background Color<br/><input type="button" value=""/></p> <p>Border</p> | Width<br><input type="text" value="100"/> % | Height<br><input type="text" value="222"/> px |
| Width<br><input type="text" value="100"/> %                                                                                                                                       | Height<br><input type="text" value="222"/> px                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                             |                                               |

| Explanation                                                                                                                                                                     | Screenshot                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
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| <p>57. We will now add a <b>Panel</b> under the last flow panel</p> <p>Select the last Flow Panel, then use the sign (+) and add the Panel.</p>                                 |  <p>The screenshot shows the ANA362 application's interface. The top navigation bar includes 'File', 'Views', 'Insert', 'Tools', 'Display', and 'More'. A dropdown menu is open under 'Insert', with 'Panel' highlighted by a red box. In the main workspace, there is a 'Canvas' view showing a dark background with some blue and green graphical elements. On the left, a tree view shows the project structure: 'Outline' at the top, followed by 'Layout' which contains 'Canvas' (which itself contains 'FlowPanel_1' and 'Image_2'), 'Popups' (which contains 'Popup_data' and 'Panel_3'), and 'Table_Data'. The 'FlowPanel_5' item is highlighted with a red box. To the right of the canvas, there is a vertical list of 'Widgets' with their icons: 'Panel', 'Tab Strip', 'Page Book', 'Flow Panel', 'Text', 'Input Field', 'Text Area', 'Dropdown', 'Checkbox Group', 'Radio Button Group', 'Button', 'Slider', 'Range Slider', 'Filter Line', 'Image', 'Shape', 'More Widgets', and 'Custom Widgets'. The 'Panel' option is also highlighted with a red box.</p> |
| <p>58. From the Styling Panel, change the size and position of the panel.</p> <p>Width: <b>100%</b><br/>Height: <b>79px</b></p> <p>Background Color:<br/><b>Transparent</b></p> |  <p>The screenshot shows the ANA362 styling panel. It has two main sections: 'Size and Position' and 'Widget'. In the 'Size and Position' section, there are input fields for 'Width' (set to '100 %') and 'Height' (set to '79 px'). In the 'Widget' section, there is a 'Background Color' button, which is highlighted with a red box and has a red arrow pointing to it from below.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

| Explanation                                                                                                                                                                                                                              | Screenshot                                                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <p>59. Under the Panel, we will add a Button:</p> <p>Select the Panel and add the Button as shown.</p>                                                                                                                                   |  |
| <p>60. Let's restyle our Button from the styling Panel.</p> <p><b>Text: Send Message</b></p> <p>Width: <b>170px</b><br/>Height: <b>48px</b><br/>Left: <b>auto</b><br/>Top: <b>16px</b><br/>Right: <b>8px</b><br/>Bottom: <b>auto</b></p> |  |

| Explanation                                                                                                                                                                                                                                                      | Screenshot                                                                          |
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| 61. Change the Background color of the Button to <b>Yellow</b> , and the font size to <b>16</b>                                                                                                                                                                  |    |
| 62. After Building the layout Part, let's add now some script in order to calculate the average score of the webpage.<br><br>We will first add some Script under the button.<br><br>63. Click on the <b>Button_1</b> and then select the function <b>onClick</b> |  |

|             |            |
|-------------|------------|
| Explanation | Screenshot |
|-------------|------------|

64. Copy/paste the script below :

```

// define variables
var name = InputField_Name.getValue();
var email = InputField_Email.getValue();
var phone = InputField_Phone.getValue();
var message= TextArea_Message.getValue();
var score = Slider_1.getValue();

// create master data into the planning table

PlanningModel_1.createMembers("Name", {id: name});
PlanningModel_1.createMembers("Email", {id: email});
PlanningModel_1.createMembers("Phone", {id: phone});
PlanningModel_1.createMembers("Message", {id: message});

// Refresh table before we are adding the key figure into the planning table

Table_Data.getDataSource().refreshData();

// Planning key figure by using setUserInput API
var sel = {
 "@MeasureDimension": "[Account].[parentId].&[Score]",
 "Name": name,
};

Table_Data.getPlanning().setUserInput(sel, score.toString());
Table_Data.getPlanning().submitData();

//in real life we will need the publish step to publish the data, but for this exercise we will work within our own planning version//
/*Table_Data.getPlanning().getPublicVersion("Actual").publish();*/

//calculate the avg score

var rs = Table_Data.getDataSource().getResultSet({"@MeasureDimension": "[Account].[parentId].&[Score]"});
var totalCount = rs.length;
var totalScore = 0.0;

for (var i = 0; i < rs.length; i++) {
 totalScore = totalScore + ConvertUtils.stringToNumber(rs[i]["@MeasureDimension"].rawValue);
}

var avgScore = "0";
if (totalCount > 0) {
 avgScore = (totalScore/totalCount).toFixed (0);
}

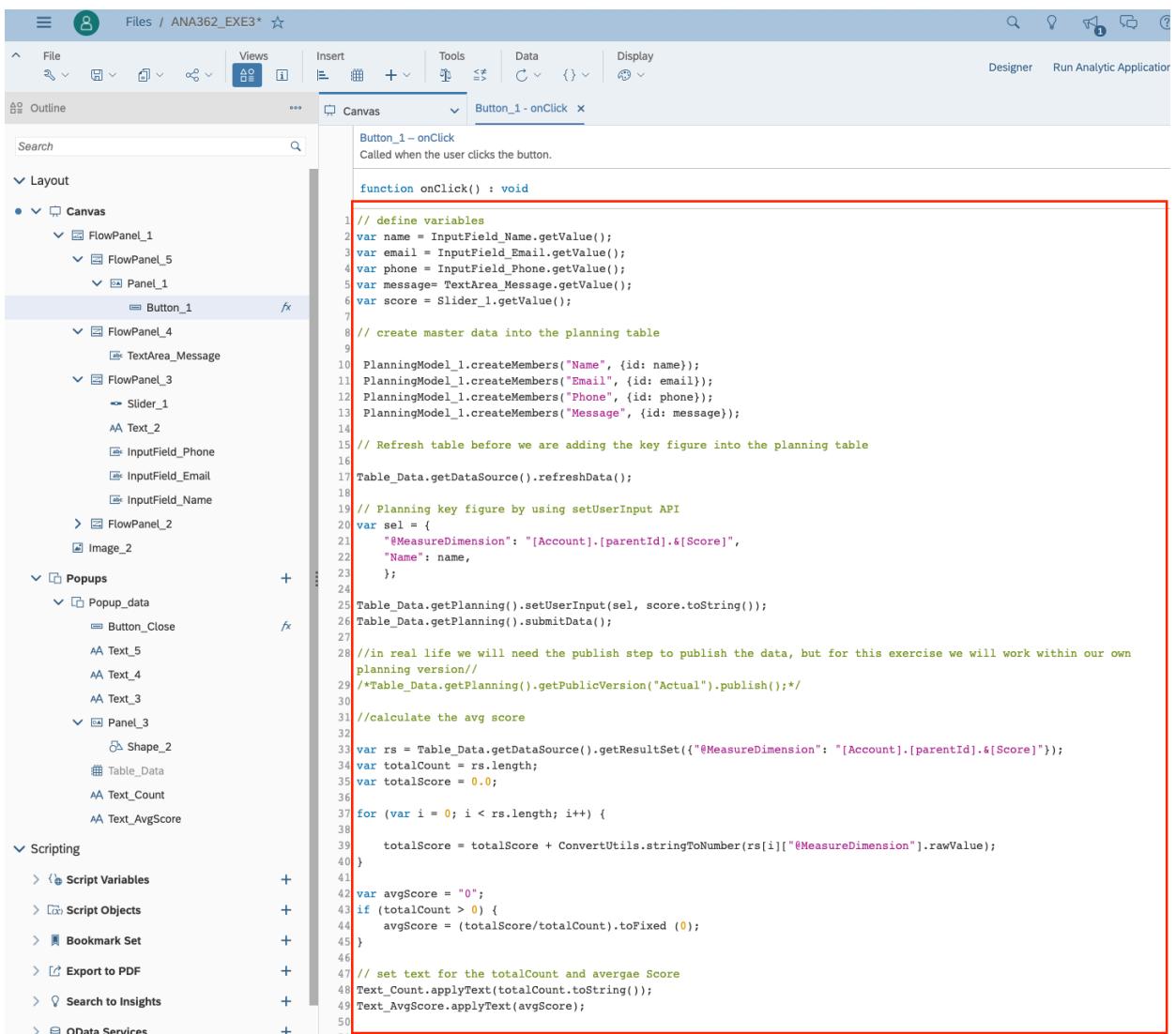
// set text for the totalCount and avergae Score
Text_Count.applyText(totalCount.toString());
Text_AvgScore.applyText(avgScore);

// Open Popup to show the result
Popup_data.open();

```

## Explanation

## Screenshot



The screenshot shows the SAP Analytics Cloud Designer interface with the 'Button\_1 - onClick' script selected in the top navigation bar. The left sidebar displays the project structure under 'Outline'. The main area shows the script code:

```

 Button_1 - onClick
 Called when the user clicks the button.

 function onClick() : void
 {
 // define variables
 var name = InputField_Name.getValue();
 var email = InputField_Email.getValue();
 var phone = InputField_Phone.getValue();
 var message= TextArea_Message.getValue();
 var score = Slider_1.getValue();

 // create master data into the planning table
 PlanningModel_1.createMembers("Name", {id: name});
 PlanningModel_1.createMembers("Email", {id: email});
 PlanningModel_1.createMembers("Phone", {id: phone});
 PlanningModel_1.createMembers("Message", {id: message});

 // Refresh table before we are adding the key figure into the planning table
 Table_Data.getDataSource().refreshData();

 // Planning key figure by using setUserInput API
 var sel = {
 "@MeasureDimension": "[Account].[parentId].&[Score]",
 "Name": name,
 };

 Table_Data.getPlanning().setUserInput(sel, score.toString());
 Table_Data.getPlanning().submitData();

 //in real life we will need the publish step to publish the data, but for this exercise we will work within our own
 //planning version/
 /*Table_Data.getPlanning().getPublicVersion("Actual").publish();*/

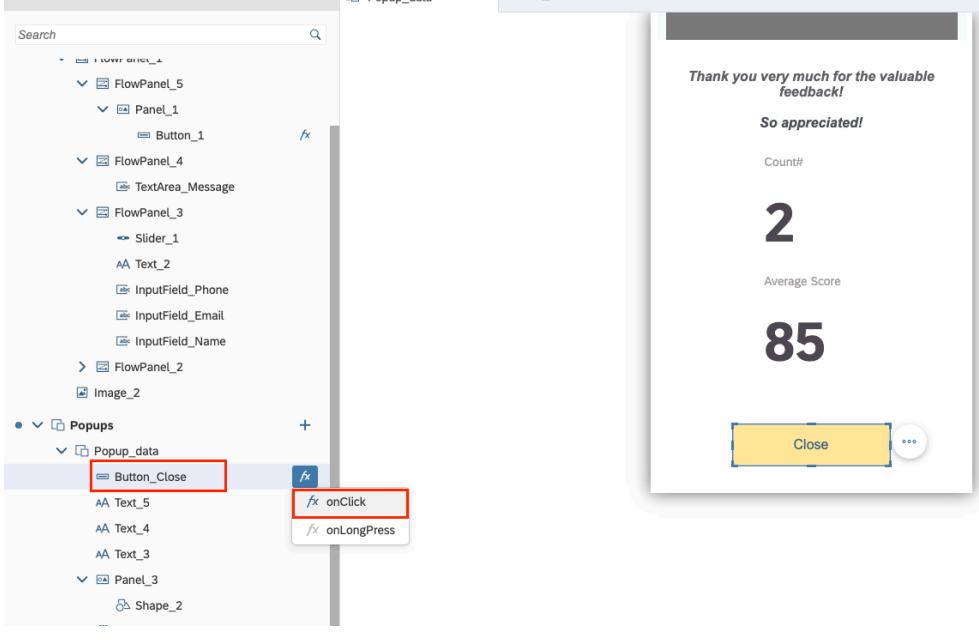
 //calculate the avg score
 var rs = Table_Data.getDataSource().getResultSet({"@MeasureDimension": "[Account].[parentId].&[Score]"});
 var totalCount = rs.length;
 var totalScore = 0.0;

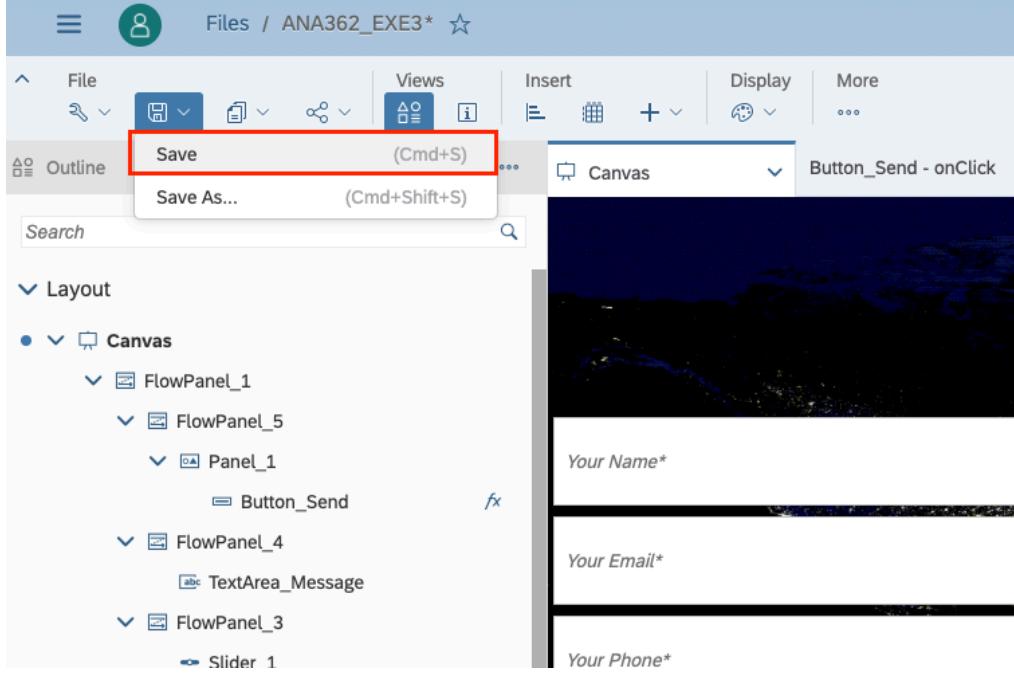
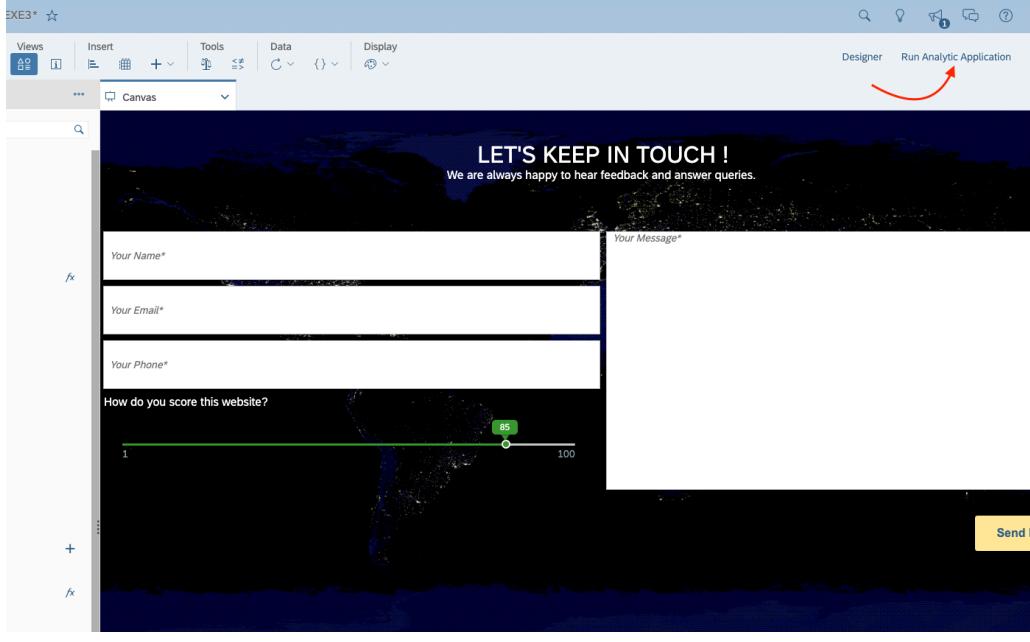
 for (var i = 0; i < rs.length; i++) {
 totalScore = totalScore + ConvertUtils.stringToNumber(rs[i]["@MeasureDimension"].rawValue);
 }

 var avgScore = "0";
 if (totalCount > 0) {
 avgScore = (totalScore/totalCount).toFixed (0);
 }

 // set text for the totalCount and average Score
 Text_Count.applyText(totalCount.toString());
 Text_AvgScore.applyText(avgScore);
 }

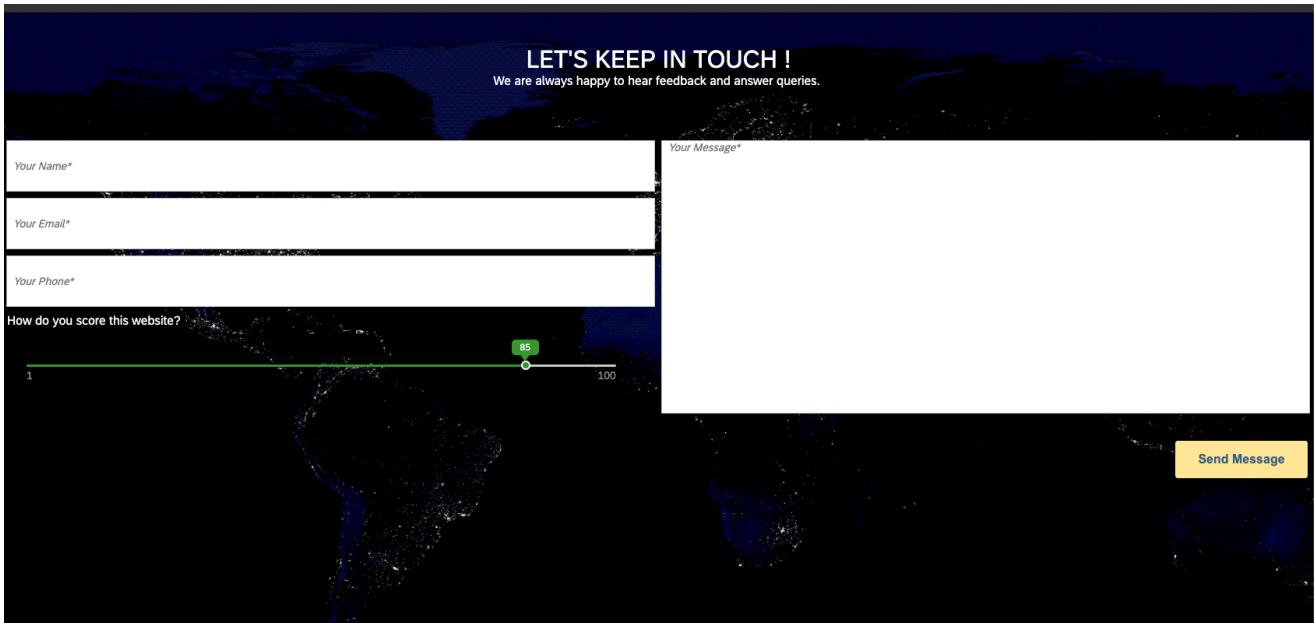
```

| Explanation                                                                                                                               | Screenshot                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>65. As Next let's add some script for the <b>Button_Close</b> under the Popups</p>                                                     |  <p>The screenshot shows the Miro workspace interface. On the left, the component tree displays a hierarchy of components including FlowPanel_4, Panel_1, Button_1, FlowPanel_4, FlowPanel_3, FlowPanel_2, and a Popups section containing Popup_data. Within Popup_data, the Button_Close component is selected and highlighted with a red box. A context menu is open over the Button_Close component, with the 'onClick' option also highlighted with a red box.</p> <p><b>Preview:</b></p> <p>Thank you very much for the valuable feedback!<br/>So appreciated!</p> <p>Count#</p> <p>2</p> <p>Average Score</p> <p>85</p> <p>Close</p> |
| <p>66. Copy/Paste the line below:</p> <pre>Popup_data.close();</pre> <p>This line of code allows us to close the popup of the result.</p> |  <p>The screenshot shows the Miro script editor with the 'Button_Close - onClick' event selected. The code block contains the following script:</p> <pre>function onClick(): void 1 Popup_data.close();</pre> <p>The line '1 Popup_data.close();' is highlighted with a red box.</p>                                                                                                                                                                                                                                                                                                                                                       |

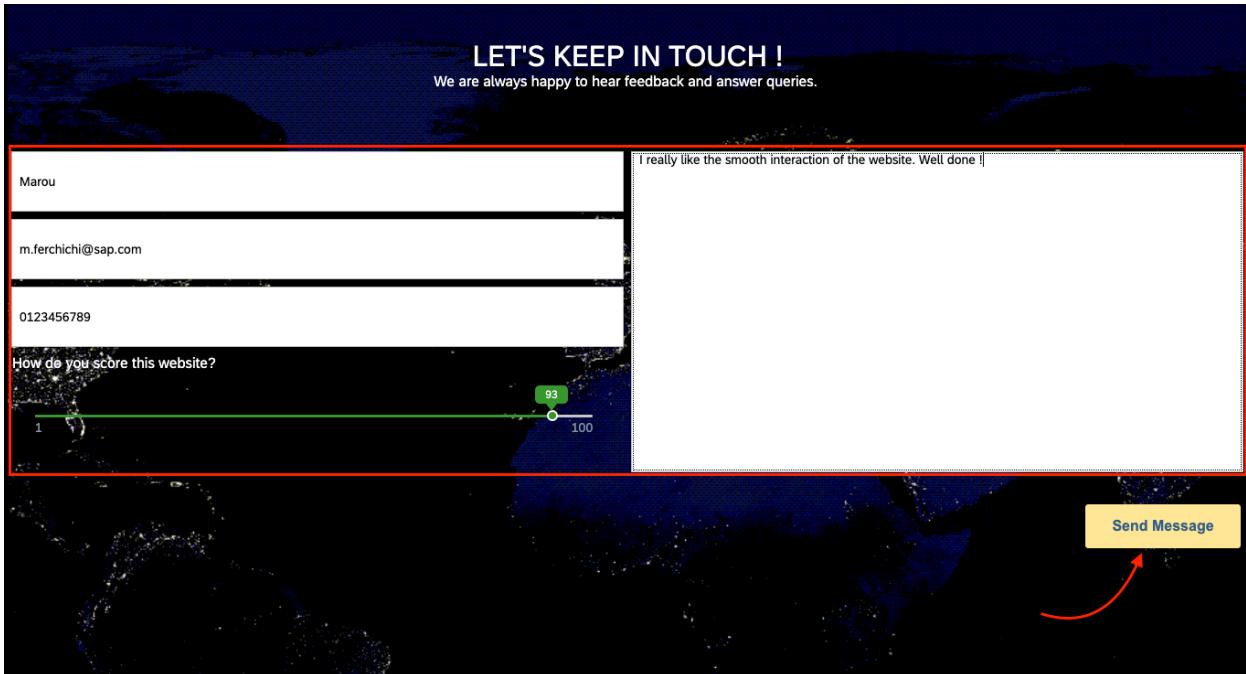
Explanation	Screenshot
<p>67. Click on the <b>Floppy Disc</b> icon and select <b>Save</b>.</p>	 <p>The screenshot shows the application's interface with a toolbar at the top. The 'File' menu is open, and the 'Save' option is highlighted with a red box. Below the toolbar, there is a sidebar labeled 'Layout' containing a tree view of the application's structure. On the right side, there is a canvas area with three input fields: 'Your Name*', 'Your Email*', and 'Your Phone*'. The 'Your Name*' field has a placeholder 'Your Name*' and a red asterisk indicating it is required.</p>
<p>68. Click <b>Run Analytic Application</b> to see how our Application will behave.</p>	 <p>The screenshot shows the application's interface with a toolbar at the top. The 'Canvas' tab is selected. In the center, there is a form with fields for 'Your Name*', 'Your Email*', and 'Your Phone*'. Below these fields is a question 'How do you score this website?' followed by a slider scale from 1 to 100, with the value set to 85. To the right of the slider is a button labeled 'Send'. In the top right corner of the interface, there are two buttons: 'Designer' and 'Run Analytic Application'. A red arrow points from the text in the previous step to the 'Run Analytic Application' button.</p>

**Explanation****Screenshot**

69. Here is the final result of your application, now you can use it in order to score a random Website



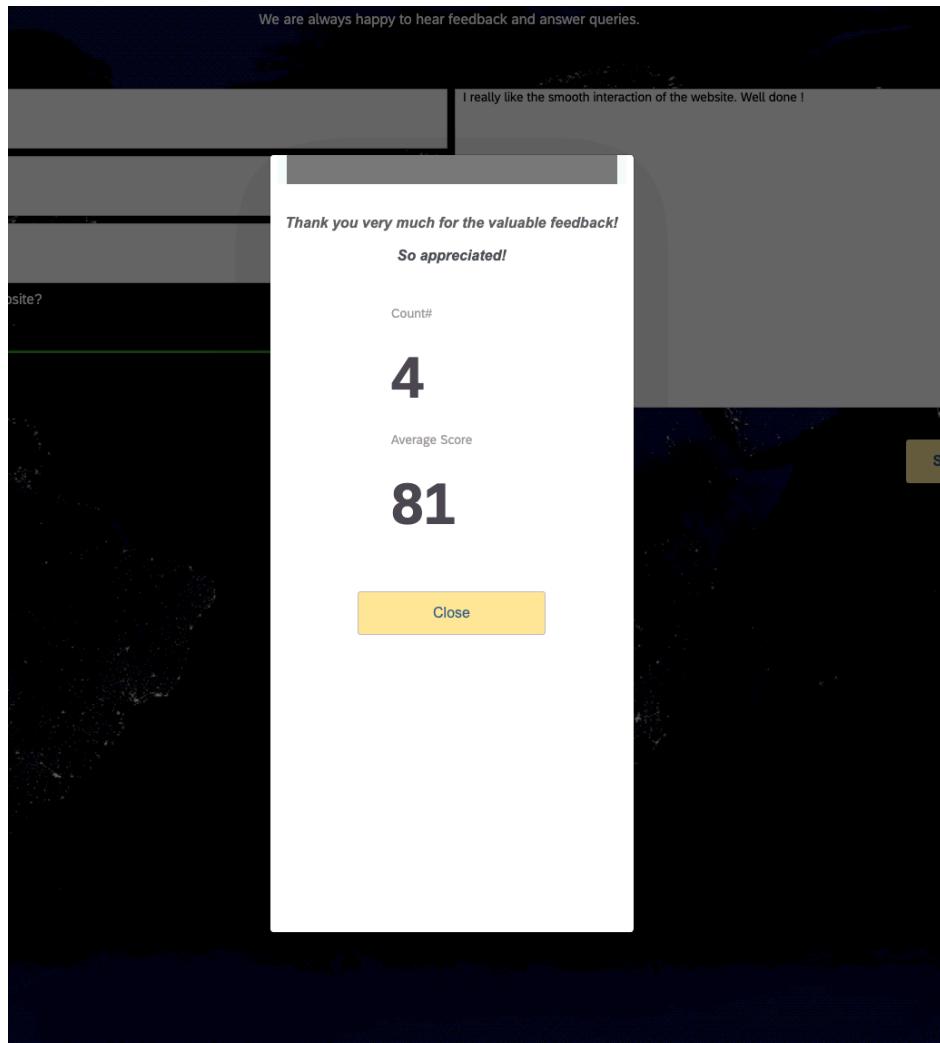
70. Insert your Name, Email, Phone, Score the Website using the Slider, Write your Message, and at last Click Send Message button:



**Explanation**

**Screenshot**

71. As shown a Popup will appear showing us, how many users have had already participated, and the average score.



**Congratulations! You Have completed the Exercise 3.**

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