

SACE11

SAP Analytics Cloud Foundation

EXERCISES AND SOLUTIONS

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Typographic Conventions

American English is the standard used in this handbook.

The following typographic conventions are also used.

This information is displayed in the instructor's presentation	
Demonstration	
Procedure	
Warning or Caution	
Hint	
Related or Additional Information	
Facilitated Discussion	
User interface control	<i>Example text</i>
Window title	<i>Example text</i>

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Explore the SAP Analytics Cloud user interface

Business Example

You are new to SAP Analytics Cloud and so you need to learn how to use the Home page and perform a few navigation tasks.

Task Flow

In this exercise, you will perform the following tasks:

- Navigate the SAP Analytics Cloud user interface
- Use the Search to Insight feature

Task 1: Log on to SAP Analytics Cloud




1. Log on to SAP Analytics Cloud. Go to the next task if you are already logged in.
 - User: **A##** or **B##**
is your 2-digit group number, and the letter is what your instructor assigned to you.
 - Password: **Welc0me1**

If prompted, choose *Accept* in the *Welcome* dialog.

Task 2: Explore the SAP Analytics Cloud User Interface

1. Determine the current revision level of the SAP Analytics Cloud you are using. Use the help to access information regarding new features.
2. Open your user profile. Locate the log out option. Edit the User Preferences but do not change them.
3. Explore the Navigation Bar on the left side by selecting/expanding each of the following menu options. If needed, use the *...More* option.
 - Home
 - Files
 - Stories
 - Analytic Applications
 - Data Analyzer
 - Digital Boardroom
 - Calendar
 - Security

- Connections
 - System
4. Explore the following story, analytic applications, and modeler landing pages. If needed, use the ...More option.

-  Stories
-  Modeler
-  Analytic Applications

Result

When you select Stories from the navigation bar, the *Welcome to Stories* page opens. Here, you can create new stories and use templates.

When you select the Modeler, the *Welcome to the Modeler* page opens. Here you have multiple options for creating new models, dimensions, and currency tables.

When you select the Analytic Applications, the *Welcome to Analytic Applications* page opens. Here you have multiple options for creating Analytic Applications, Bookmarks, and Custom Widgets.

5. What are the various types of files?

Result

Files include stories, models, and other objects.

6. Return to the Home page.
7. Use the online help for the glossary, deployment, and create tasks.
8. Review the types of notifications the system can issue.

Result

Notification types include alerts, collaboration, and tasks.

9. From the Navigation Bar on the upper left, return to the *Home* page if needed.

Task 3: Use the Search to Insight Feature

Search to Insight is a natural language query interface used to query data.




Note:

Your results may vary from the instructions as there are multiple sources for Operating Expense data.

1. Use search to insight for Operating Income.

Result

Search to Insight opens and a waterfall chart for Operating Income is displayed. If you hover on the  symbol near the top left of the chart, it should display the source model: *U00M_Op_Income* (the model you get may vary)>

2. In the input field after Operating Income, input **over Time** and press *Enter*.

Result

A trend chart is generated. If you do not get any data, enter **Quantity Sold by Date**. If you receive a chart generation error, choose *Other Results* and select a different model such as *SAP__FI_ANA_IM_GLFP*.

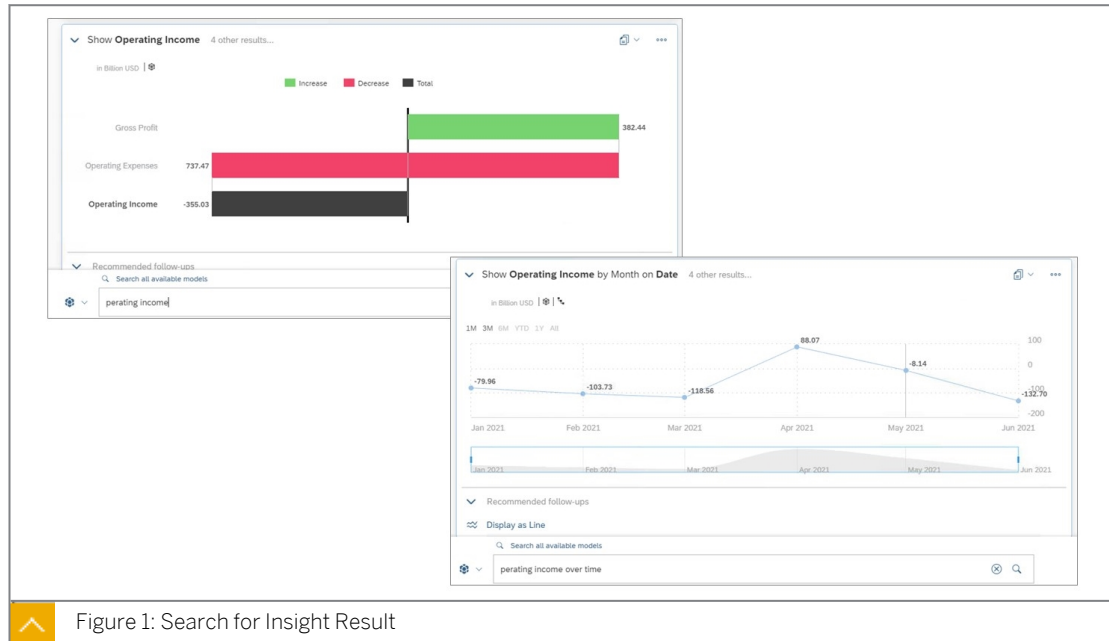


Figure 1: Search for Insight Result

3. On the top left, choose *Exit Search to Insight*.
4. Close the new features banner.

Result

You have completed this exercise.

Explore the SAP Analytics Cloud user interface

Business Example

You are new to SAP Analytics Cloud and so you need to learn how to use the Home page and perform a few navigation tasks.

Task Flow

In this exercise, you will perform the following tasks:

- Navigate the SAP Analytics Cloud user interface
- Use the Search to Insight feature


Task 1: Log on to SAP Analytics Cloud





1. Log on to SAP Analytics Cloud. Go to the next task if you are already logged in.
 - User: **A##** or **B##**
is your 2-digit group number, and the letter is what your instructor assigned to you.
 - Password: **Welc0me1**

If prompted, choose *Accept* in the *Welcome* dialog.

- a) From your training remote desktop, launch Google Chrome.
- b) Type (or copy/paste) the URL (provided by your instructor) for the SAP Analytics Cloud tenant you will use in class.
- c) Your instructor has assigned you to a group, either A or B, and also given you a 2-digit group number. Log on to SAP Analytics Cloud using the credentials above.
- d) If prompted, choose *Accept* in the *Welcome* dialog.

Task 2: Explore the SAP Analytics Cloud User Interface

1. Determine the current revision level of the SAP Analytics Cloud you are using. Use the help to access information regarding new features.
 - a) From the Navigation Bar on the left, go to  *System* → *About*.
A new pop-up window will open and show you the version of the training tenant. Choose *OK* to close the dialog.
 - b) On the upper right area of the Home Screen, choose the *Help ?* button. Choose *What's new* and see the most recent new features. Choose *Close* to return to the *Home* page.
2. Open your user profile. Locate the log out option. Edit the User Preferences but do not change them.
 - a) Choose *Profile* on the upper right of the *Home* page (to the right of *?Help*).

- b) Locate (but do not select) the *Sign Out* option.
 - c) Go to *Profile Settings*.
 - d) Choose  *Edit* to make the user preferences editable. View the possible languages in the dropdown menu.
 - e) Close the dialog.
3. Explore the Navigation Bar on the left side by selecting/expanding each of the following menu options. If needed, use the *...More* option.
- Home
 - Files
 - Stories
 - Analytic Applications
 - Data Analyzer
 - Digital Boardroom
 - Calendar
 - Security
 - Connections
 - System
4. Explore the following story, analytic applications, and modeler landing pages. If needed, use the *...More* option.
-  Stories
 -  Modeler
 -  Analytic Applications
- a) From the Navigation Bar choose the Stories, Modeler, and Analytic Applications icons to access the object-specific page.



Result

When you select Stories from the navigation bar, the *Welcome to Stories* page opens. Here, you can create new stories and use templates.

When you select the Modeler, the *Welcome to the Modeler* page opens. Here you have multiple options for creating new models, dimensions, and currency tables.


When you select the Analytic Applications, the *Welcome to Analytic Applications* page opens. Here you have multiple options for creating Analytic Applications, Bookmarks, and Custom Widgets.

5. What are the various types of files?

- a) From the Navigation Bar choose  *Files*.
- b) Use the  *Filter* dropdown to see the types of files.

Result

Files include stories, models, and other objects.

6. Return to the Home page.
7. Use the online help for the glossary, deployment, and create tasks.
 - a) Choose the ? icon on the upper right.
 - b) Choose *Help*.
 - c) Type **Glossary** and press *Enter*.
 - d) Select the *Glossary* entry.
 - e) In the *Search* field, type **Deployment** and press *Enter*.
 - f) Search the help for **Creating Tasks**, and read about creating tasks.
 - g) Close the help dialog.
8. Review the types of notifications the system can issue.
 - a) To review the types of notifications the system can issue, choose the  *Notifications* icon on the upper right.
 - b) Choose the dropdown arrow next to *All Types*.

Result

Notification types include alerts, collaboration, and tasks.

9. From the Navigation Bar on the upper left, return to the *Home* page if needed.

Task 3: Use the Search to Insight Feature


Search to Insight is a natural language query interface used to query data.

**Note:**

Your results may vary from the instructions as there are multiple sources for Operating Expense data.

1. Use search to insight for Operating Income.
 - a) Under *Hello, A## (or B##)*, enter **Operating Income**.
 - b) Press *Enter*.

Result

Search to Insight opens and a waterfall chart for Operating Income is displayed. If you hover on the  symbol near the top left of the chart, it should display the source model: *U00M_Op_Income* (the model you get may vary)>

2. In the input field after Operating Income, input **over Time** and press *Enter*.

Result

A trend chart is generated. If you do not get any data, enter **Quantity Sold by Date**. If you receive a chart generation error, choose *Other Results* and select a different model such as *SAP__FI_ANA_IM_GLFP*.

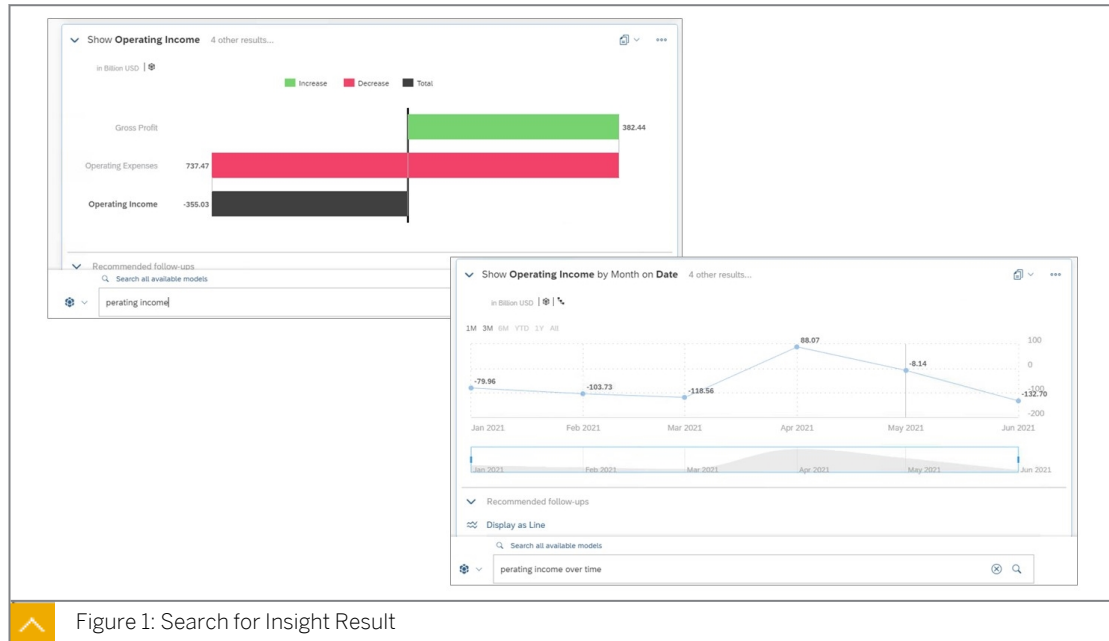


Figure 1: Search for Insight Result

3. On the top left, choose *Exit Search to Insight*.
4. Close the new features banner.
 - a) Near the top of the page, there is a banner that says: *New features are available. Check them out.*
 - b) On the right, choose *x Close*.

Result

You have completed this exercise.

Use basic SAP Analytics Cloud story navigation

Business Example

You are new to SAP Analytics Cloud and so you need to learn how to use stories and perform a few navigation tasks.

Task Flow

In this exercise, you will perform the following tasks:

- Explore a story in view mode
- Copy an existing story for editing
- Rename a story
- Use the new story to analyze the data

Task 1: Log on to SAP Analytics Cloud

1. Log on to SAP Analytics Cloud. Go to the next task if you are already logged in.
 - User: **A##** or **B##**.
is your 2-digit group number, and the letter is what your instructor assigned to you.
 - Password: **We1come1**

Task 2: Explore a Sample Story in View Mode

1. From the *Home* page, choose *Explore a Sample Story*.

Result

The sample story opens to the Summary page, which includes a point/number chart, a bar chart, and a trend chart.

A story is a presentation-style document that uses charts, visualizations, text, and images to describe data.

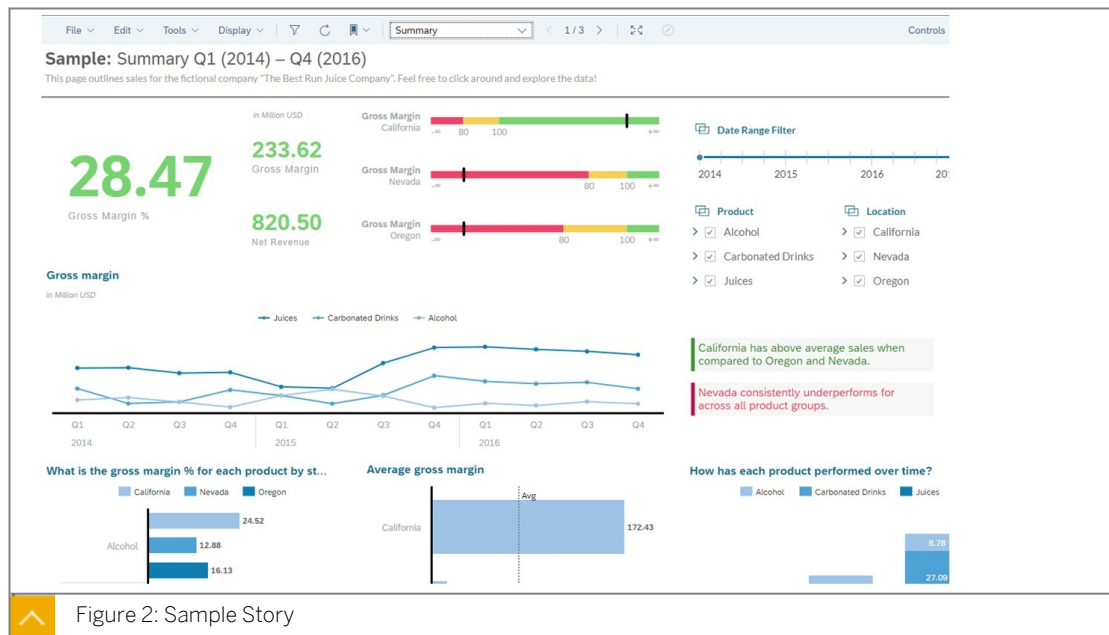


Figure 2: Sample Story

- On the right, deselect Juices.

Result

All of the widgets (charts and tables) now exclude data for Juices.

- Drill down on location in the average gross margin bar chart. Reset the story.
- Use Smart Insights to see the key contributors for California in the average gross margin bar chart..
- In the ribbon, locate the *Display* option (upper left). Use the dropdown next to *Display* and choose *Tab Bar*.

Result

Now the Summary, Analysis, and Sales Manager Overview pages appear as tabs.

- Go to the *Analysis* page.

Result

A geo map and a scatterplot are available for analysis.

- Switch the geo map to full screen mode.


- In the *Sales Manager Overview*, deselect Juice and Others in the Product filter and use the *Controls* button to display them.

Result

The page filter should list Alcohol and Carbonated Drinks as selected products.

- In the data table, exclude Nancy Miller and view the exclusion in Controls. Reset the story.
- Return to the *Home* page via the Navigation Bar.

Task 3: Copy an Existing Story for Editing



- Locate the  *POOS_Calculations_Story* story in the public folder for the SACE11 content.
- Copy *POOS_Calculations_Story* to the *My Files* folder as follows:

Field	Value
Name	U##S_Calcs
Description	U## Story Calculations

Result

The new story is saved to your *My Files* folder.


Task 4: Rename the Story


1. Use the  *Navigation Bar* to access your  *My Files* area.
2. Rename the *U##S_Calcs* story as follows:

Name	U##S_First_Story
Description	U## First Story


Task 5: Use the New Story to Analyze the Data

1. Open the *U##S_First_Story*.



Note:
 You should not be prompted to log on but if you are, try to  reload (directly above the SAP logo) the SAP Analytics Cloud browser. This story accesses data from live SAP HANA views and since single sign-on is enabled, you should not be prompted to log on.

2. Change from *View* mode to *Edit* Mode. Discover the differences.




Note:
 If prompted to enable Optimized View Mode, choose *No Thanks*.

Result

In edit mode:

- The pages are automatically displayed.
 - There are more options in the ribbon, such as those in the *Data* toolbar.
 - The *Story* and *Data* buttons appear on the upper left.
 - The *Designer* button appear on the upper right.
 - The *More* option is available in the ribbon.
3. Use the *Designer* button for a table object.

Result

The Builder pane displays the Data Source, the Table Structure, Rows, Columns, and so on. On the upper right, you can use  *Styling* to format the table.

- Perform a device preview for an iOS device and various sizes.

Result

Since this story uses responsive pages, it can be used for mobile devices that vary in size.

- On the *Financials* page in *View* mode, filter on *Juice* and save a personal bookmark as **U###_Juice**. Make it your default.
- Use the Navigation Bar to go back to Home screen.
- Under *Recent Stories*, open *U###_First_Story*. On the *Financials* page, only Juice should be displayed.

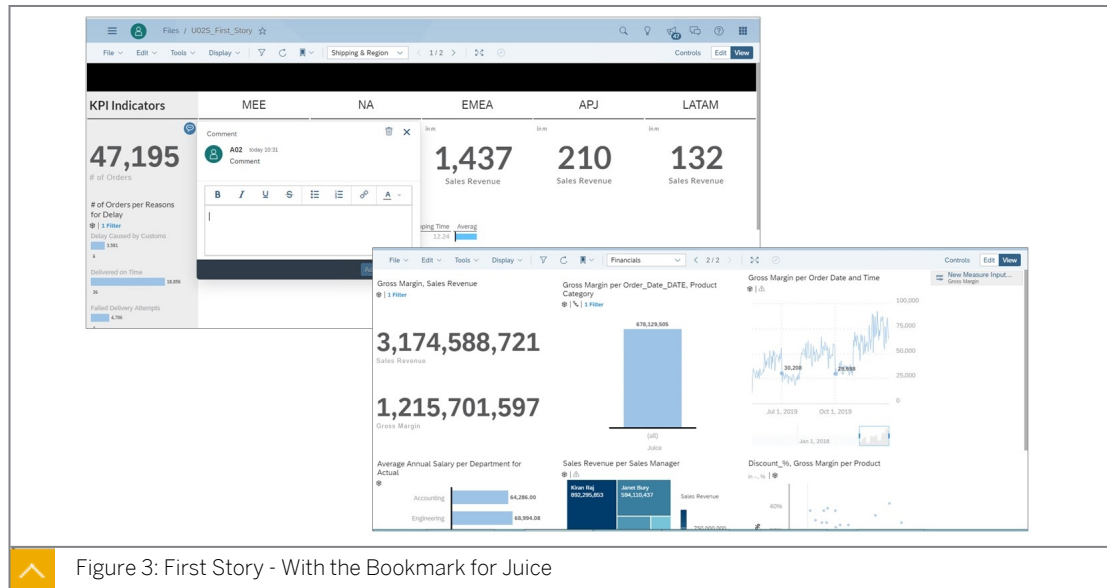


Figure 3: First Story - With the Bookmark for Juice

- Export the story as a PDF.

Result

When you export a story, a PDF is created with a separate PDF page for each page in the story.

- Return to the *Home* screen.

Use basic SAP Analytics Cloud story navigation

Business Example

You are new to SAP Analytics Cloud and so you need to learn how to use stories and perform a few navigation tasks.

Task Flow

In this exercise, you will perform the following tasks:

- Explore a story in view mode
- Copy an existing story for editing
- Rename a story
- Use the new story to analyze the data

Task 1: Log on to SAP Analytics Cloud

1. Log on to SAP Analytics Cloud. Go to the next task if you are already logged in.
 - User: **A##** or **B##**.
is your 2-digit group number, and the letter is what your instructor assigned to you.
 - Password: **We1come1**
 - a) From your training remote desktop, launch Google Chrome.
 - b) Enter the URL (provided by your instructor) for the SAP Analytics Cloud tenant you will use in class.
 - c) Your instructor has assigned you to a group, either A or B, and also given you a 2-digit group number. Log on to SAP Analytics Cloud using the credentials above.

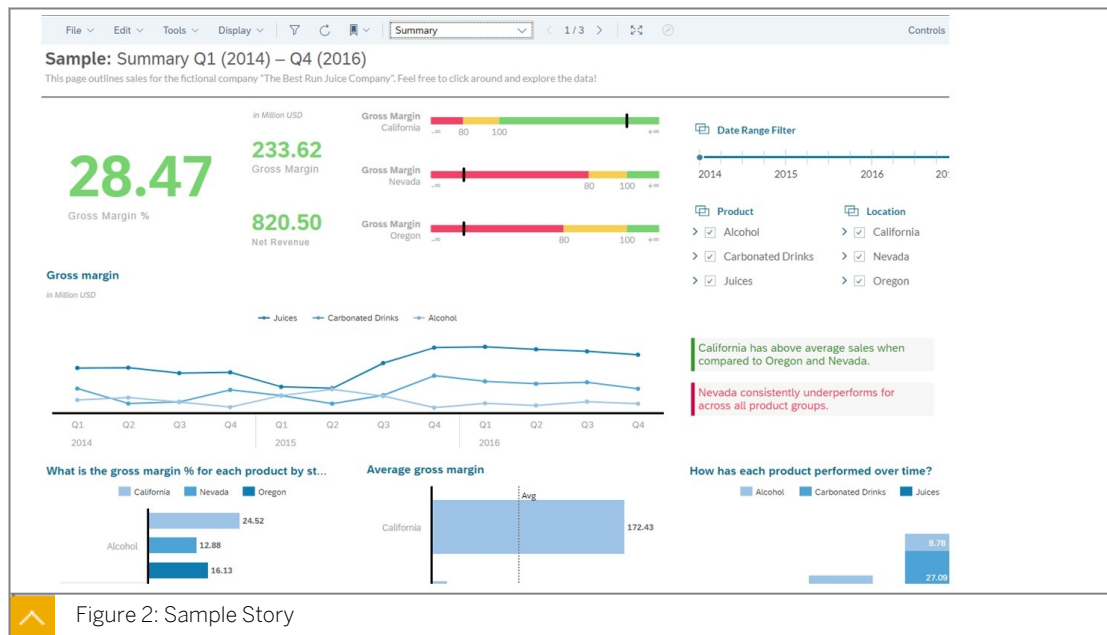
Task 2: Explore a Sample Story in View Mode

1. From the *Home* page, choose *Explore a Sample Story*.

Result

The sample story opens to the Summary page, which includes a point/number chart, a bar chart, and a trend chart.

A story is a presentation-style document that uses charts, visualizations, text, and images to describe data.




- On the right, deselect Juices.

Result

All of the widgets (charts and tables) now exclude data for Juices.

- Drill down on location in the average gross margin bar chart. Reset the story.
 - In the *Average gross margin* chart, click the bar for California.

- Click the drill down symbol .

Result

The cities in California are displayed.

- In the ribbon, choose *Edit* → *Reset* → *Reset*.

- Use Smart Insights to see the key contributors for California in the average gross margin bar chart..
 - In the *Average gross margin* chart, right click the bar for California.
 - Choose Smart Insights. Under *How has this changed*, expand the node to see an explanation and a bar chart.
 - On the lower right, choose *Close*.

- In the ribbon, locate the *Display* option (upper left). Use the dropdown next to *Display* and choose *Tab Bar*.

Result


Now the Summary, Analysis, and Sales Manager Overview pages appear as tabs.

- Go to the *Analysis* page.

Result

A geo map and a scatterplot are available for analysis.

- Switch the geo map to full screen mode.
 - Select the geo map.



- b) Use the  *More Actions* icon and choose *Fullscreen*.
 - c) Exit full screen mode.
8. In the *Sales Manager Overview*, deselect Juice and Others in the Product filter and use the *Controls* button to display them.
- a) Go to the *Sales Manager Overview* page.
 - b) On the left, deselect *Juices* and *Others*.
 - c) On the upper right, choose *Controls* to see what filters are applied.
 - d) On the lower right, choose *Done* to close the Controls panel.

Result



The page filter should list Alcohol and Carbonated Drinks as selected products.

9. In the data table, exclude Nancy Miller and view the exclusion in Controls. Reset the story.
- a) In the data table, right click on Nancy Miller → Exclude.
 - b) On the upper right, choose *Controls*.
- Result**
- The widget (table) filter should list the sales manager Nancy Miller as excluded.
- c) On the lower right, choose *Done* to close the Controls panel.
 - d) In the ribbon, choose *Edit* → *Reset* → *Reset*.
10. Return to the *Home* page via the Navigation Bar.

Task 3: Copy an Existing Story for Editing

1. Locate the  *POOS_Calculations_Story* story in the public folder for the SACE11 content.
 - a) From the Navigation Bar choose  *Files*.
 - b) Go to *Public* → *SACE11_34* → *Content*.
2. Copy *POOS_Calculations_Story* to the *My Files* folder as follows:



Field	Value
<i>Name</i>	U##S_Calcs
<i>Description</i>	U## Story Calculations

- a) Select the  *POOS_Calculations_Story* story.
- b) Near the top of the page, choose  *Copy To*.
- c) Choose *My Files* from the upper left corner of the dialog box.
- d) Enter the information as shown in the preceding table.
- e) Choose *OK*.



Result

The new story is saved to your *My Files* folder.

Task 4: Rename the Story

1. Use the  *Navigation Bar* to access your  *My Files* area.
2. Rename the *U##S_Calcs* story as follows:

Name	U##S_First_Story
Description	U## First Story


- a) Select the  *U##S_Calcs* story.
- b) Choose  *Edit Details*.
- c) Enter the data as provided.
- d) Choose *Save*.

Task 5: Use the New Story to Analyze the Data

1. Open the *U##S_First_Story*.



Note:

You should not be prompted to log on but if you are, try to  reload (directly above the SAP logo) the SAP Analytics Cloud browser. This story accesses data from live SAP HANA views and since single sign-on is enabled, you should not be prompted to log on.

2. Change from *View* mode to *Edit* Mode. Discover the differences.



Note:

If prompted to enable Optimized View Mode, choose *No Thanks*.

- a) On the upper right, choose *Edit* to get more story options.



Note:

If prompted to enable Optimized View Mode, choose *No Thanks*.

- b) What are the differences?


Result



In edit mode:

- The pages are automatically displayed.

- There are more options in the ribbon, such as those in the *Data* toolbar.
 - The *Story* and *Data* buttons appear on the upper left.
 - The *Designer* button appear on the upper right.
 - The *More* option is available in the ribbon.
3. Use the *Designer* button for a table object.
 - a) In the *Shipping & Region* page, click on the *PACIFICA_SHIPPING_INFO* table.
 - b) On the upper right, click the *Designer* button. The *Builder* pane opens for the table.
 - c) Click the *Designer* button to close the *Builder* pane.



Result

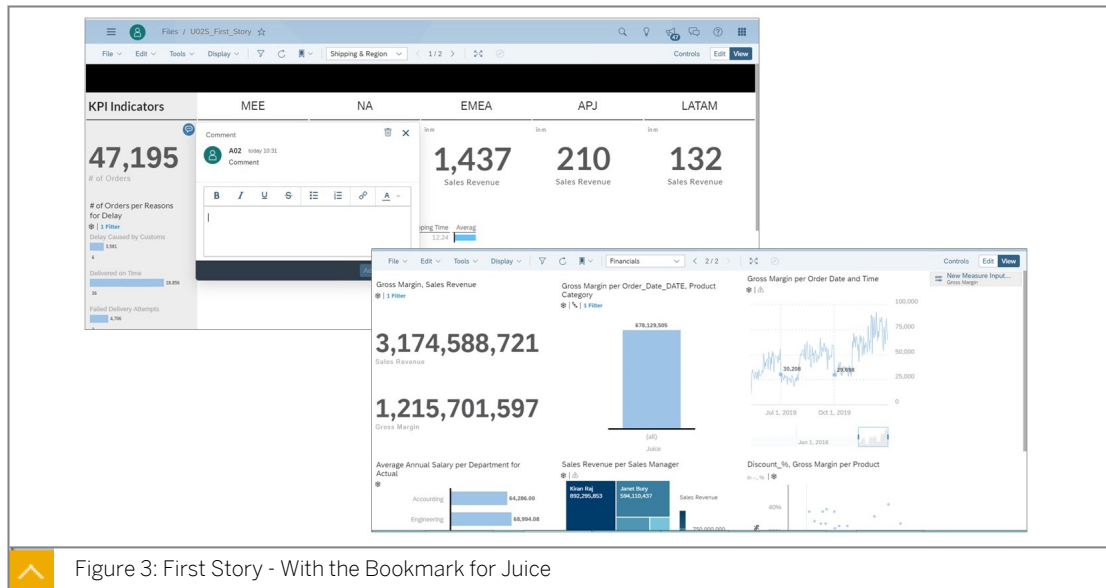
The Builder pane displays the Data Source, the Table Structure, Rows, Columns, and so on. On the upper right, you can use  *Styling* to format the table.

4. Perform a device preview for an iOS device and various sizes.
 - a) In the ribbon, use the . . . *More* option and choose *Device Preview*. Alternatively, depending on your screen size and resolution, choose the  *Device Preview* button from the *Format* area of the toolbar.
 - b) Select the *iOS Device* and *Large Tablet Size* and then *Small Phone*.
 - c) Click  to exit the device preview.

Result

Since this story uses responsive pages, it can be used for mobile devices that vary in size.

5. On the *Financials* page in *View* mode, filter on *Juice* and save a personal bookmark as **U##_Juice**. Make it your default.
 - a) If necessary, click *View* in the upper right to get into *View* mode.
 - b) Use the scroll feature at the top of the page to access the *Financials* page.
 - c) In the column chart in the middle of the page, click on the column for *Juice* and select the filter symbol .
 - d) On the top left, select the *Tools* dropdown.
 - e) Choose *Bookmark* → *Bookmark Current State* → *Enter a name of U##_Juice* → *Select Personal* → *Select*  *Set as the new default view of this story*.
6. Use the Navigation Bar to go back to Home screen.
7. Under *Recent Stories*, open *U##S_First_Story*. On the *Financials* page, only *Juice* should be displayed.



8. Export the story as a PDF.
 - a) Go to *File* → *Export*.
 - b) For File Type, select *PDF* → *Export*.
 - c) On the lower left, open the PDF and view the output.
 - d) Close the PDF.

Result

When you export a story, a PDF is created with a separate PDF page for each page in the story.

9. Return to the *Home* screen.

Share a story

Business Example

Business scenario: You are new to SAP Analytics Cloud and you need to learn how to work with some of SAP Analytics Cloud's sharing options.


Task Flow

In this exercise, you will perform the following tasks:

- Open an existing story
 - Pin a widget to your Home page
 - Share your story
1. Open your *U##S_First_Story*.



Note:

You should not be prompted to log on but if you are, try to  reload (directly above the SAP logo) the SAP Analytics Cloud browser. This story accesses data from live SAP HANA views and since single sign-on is enabled, you should not be prompted to log on.

2. Pin the *Number of Orders KPI* to your Home page.
3. Close the story by returning to the Home screen.
4. Share the story from your personal folder to your team (A or B). They should only have permission to see the story in View mode.
5. Delete the *Number of Orders* KPI from your Home Screen.

Result

By removing this KPI, you will not need to log into SAP HANA every time you access SAP Analytics Cloud in this course.

6. Unshare the story.
7. Return to the Home screen.

Share a story

Business Example

Business scenario: You are new to SAP Analytics Cloud and you need to learn how to work with some of SAP Analytics Cloud's sharing options.


Task Flow




In this exercise, you will perform the following tasks:

- Open an existing story
 - Pin a widget to your Home page
 - Share your story
1. Open your *U##S_First_Story*.



Note:

You should not be prompted to log on but if you are, try to  reload (directly above the SAP logo) the SAP Analytics Cloud browser. This story accesses data from live SAP HANA views and since single sign-on is enabled, you should not be prompted to log on.

2. Pin the *Number of Orders KPI* to your Home page.
 - a) Select the *# of Orders* KPI (on the upper left).
 - b) Choose the *More Actions* icon and choose *Pin to Home*. If prompted to save the story, do so.
3. Close the story by returning to the Home screen.
4. Share the story from your personal folder to your team (A or B). They should only have permission to see the story in View mode.
 - a) Open the  Navigation Bar if needed. On the top left, choose *Files*.
 - b) Select your story  *U##S_First_Story*.
 - c) To use the share function, choose the  icon.
 - d) Select *Share*.
 - e) In the pop-up window, choose enter *Team_A* (or *B* depending on what group your class is using) and choose *OK*.
 - f) The access should be set to *View*.

g) Choose *Share* and then choose *Close*.

5. Delete the *Number of Orders* KPI from your Home Screen.

a) Select the *Number of Orders* KPI.

b) Choose . . . *Tile Settings* and then *Delete* → *OK*.


Result

By removing this KPI, you will not need to log into SAP HANA every time you access SAP Analytics Cloud in this course.

6. Unshare the story.

a) Open the  *Navigation Bar* if needed. On the top left, choose *Files*.

b) Select your  *U##S_First_Story* story.

c) Choose the  icon.

d) Select *Share*.

e) Expand *Share with 1 Team*.

f) Select the Team and *Unshare* the story.

g) Choose *Close*.

7. Return to the Home screen.

Use Data Analyzer to create an insight

Access Live Data with the Data Analyzer

Business Example

You need to know how to access data from a source system without performing a data import. With the data analyzer, you have a quick and easy way to access data via live connections. The result can be captured in a data analyzer insight.

Task Flow

- Access Live Data with the Data Analyzer from SAP Business Warehouse
 - Access Live Data with the Data Analyzer from SAP HANA
1. Log on to SAP Analytics Cloud. Go to the next step if you are already logged in.
 - User: **A##** or **B##**.
is your 2-digit group number, and the letter is what your instructor assigned to you.
 - Password: **We1come1**
 2. Create a Data Analyzer Insight based in SAP Business Warehouse data.

Field	Value
System Type:	SAP BW
Connection:	A4H
Datasource:	P00Q_BW_Q_STRUCTURES

Result

After a few seconds, the data appears with measures in the columns and location and a structure in the rows.

3. Configure the Insight as follows:

Field	Value
Rows	Region
	Structure
Columns	Sales_Value
	Quantity

4. Save the insight as follows:

Field	Value
Name	U##I_BW

Field	Value
Description	U## BW Insight
<input checked="" type="checkbox"/> Automatically open prompt when insight opens (under <i>Advanced Options</i>)	

Result

You have created an insight based on an SAP BW Query.

5. Create a Data Analyzer Insight based on SAP HANA data.

Field	Value
System Type:	SAP HANA
Connection:	RemoteCO
Datasource:	WORKSHOP_PACIFICA_ORDER_FINANCE

Result

After a few seconds, the data appears with *Price* in the columns but nothing in the rows.

6. Configure the Insight as follows:

Field	Value
Rows	Region
	Location
Columns	Measures: <input checked="" type="checkbox"/> Select All

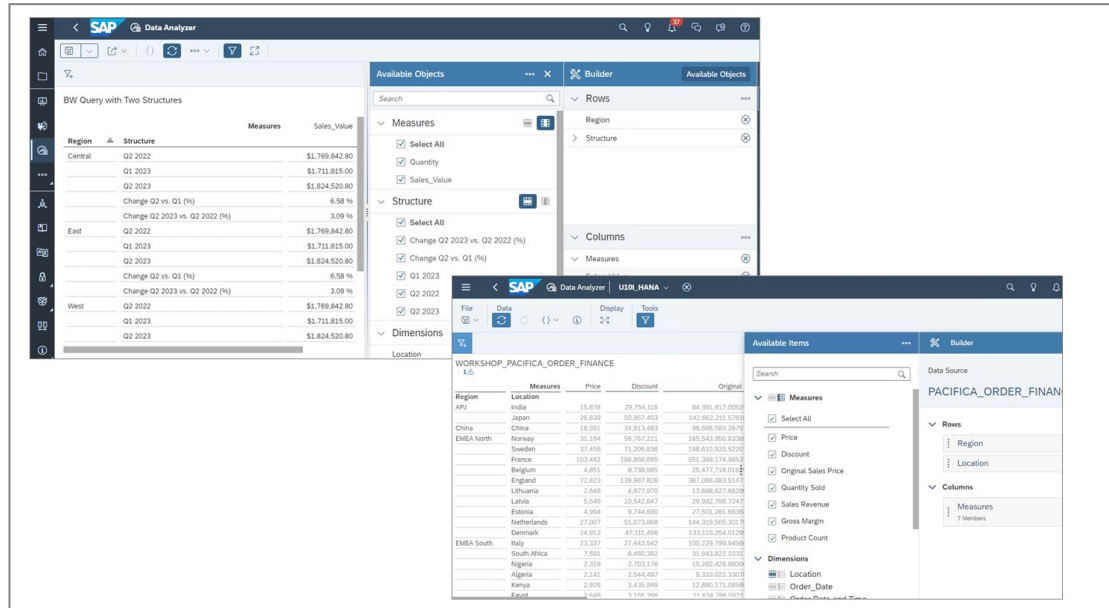
Result

You have created an insight based on an SAP HANA calculation view.

7. Save the insight as follows:

Field	Value
Name	U##I_HANA
Description	U## HANA Insight

Result



You have created an insight based on an SAP S/4HANA core data services view.

8. Return to the Home page.

Result

You have completed this exercise.

Use Data Analyzer to create an insight

Access Live Data with the Data Analyzer


Business Example

You need to know how to access data from a source system without performing a data import. With the data analyzer, you have a quick and easy way to access data via live connections. The result can be captured in a data analyzer insight.

Task Flow

- Access Live Data with the Data Analyzer from SAP Business Warehouse
 - Access Live Data with the Data Analyzer from SAP HANA
1. Log on to SAP Analytics Cloud. Go to the next step if you are already logged in.
 - User: **A##** or **B##**.
is your 2-digit group number, and the letter is what your instructor assigned to you.
 - Password: **We1come1**
 - a) From your training remote desktop, launch Google Chrome.
 - b) Enter the URL (provided by your instructor) for the SAP Analytics Cloud tenant you will use in class.
 - c) Your instructor has assigned you to a group, either A or B, and also given you a 2-digit group number. Log on to SAP Analytics Cloud using the credentials above.
 2. Create a Data Analyzer Insight based in SAP Business Warehouse data.

Field	Value
System Type:	SAP BW
Connection:	A4H
Datasource:	P00Q_BW_Q_STRUCTURES


- a) In the navigation area on the left, choose  Data Analyzer.
- b) Choose *From a Data Source*.
- c) In the *Select Data Source* dialog, make your selections as shown in the table above.
- d) Choose *OK*.

Result

After a few seconds, the data appears with measures in the columns and location and a structure in the rows.

3. Configure the Insight as follows:

Field	Value
Rows	Region
	Structure
Columns	Sales_Value
	Quantity

- a) On the upper right, choose the  *Builder* button in order to open the *Builder* and *Available Items* panels.
- b) Remove Location from the rows.
- c) Drag *Region* into the *Rows* above the *Structure*.

4. Save the insight as follows:

Field	Value
Name	U##I_BW
Description	U## BW Insight
<input checked="" type="checkbox"/> Automatically open prompt when insight opens (under <i>Advanced Options</i>)	


- a) On the upper left, choose *Save*.
- b) Enter the data as provided.
- c) Choose *OK*.

Result

You have created an insight based on an SAP BW Query.

5. Create a Data Analyzer Insight based on SAP HANA data.

Field	Value
System Type:	SAP HANA
Connection:	RemoteCO
Datasource:	WORKSHOP_PACIFICA_ORDER_FINANCE


- a) In the navigation area on the left, choose  *Data Analyzer*.
- b) Choose *From a Data Source*.
- c) In the *Select Data Source* dialog, make your selections as shown in the table above.
- d) Choose *OK*.

Result

After a few seconds, the data appears with *Price* in the columns but nothing in the rows.

6. Configure the Insight as follows:

Field	Value
Rows	Region
	Location
Columns	Measures: <input checked="" type="checkbox"/> Select All

a) On the upper right, choose the  *Builder* button in order to open the *Builder* and *Available Items* panels.

b) Configure the insight as shown above.

Result

You have created an insight based on an SAP HANA calculation view.

7. Save the insight as follows:

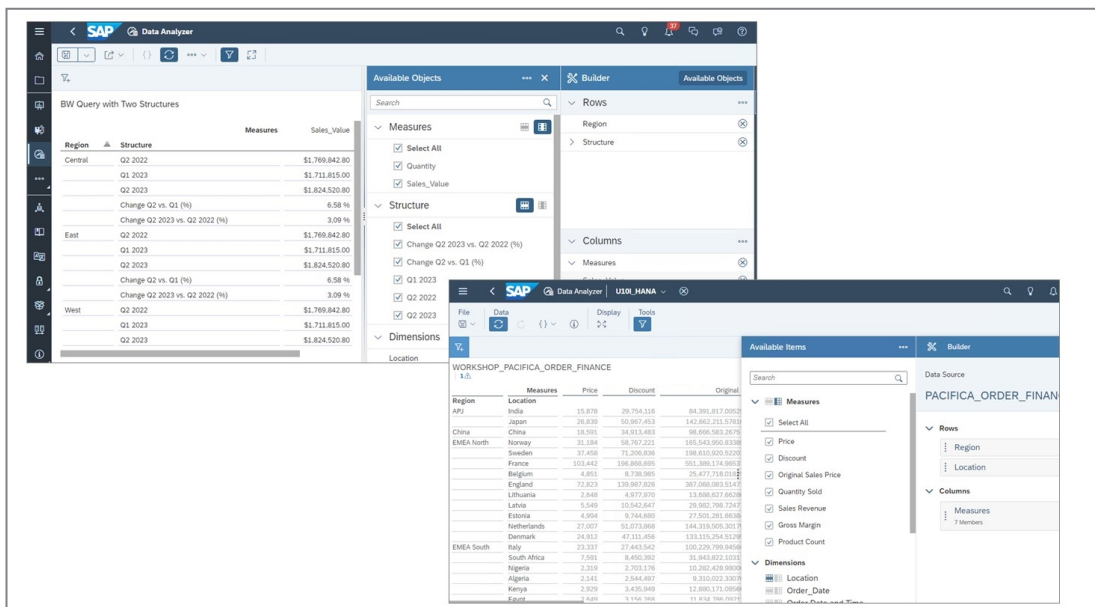
Field	Value
Name	U##I_HANA
Description	U## HANA Insight

a) On the upper left, choose Save.

b) Enter the data as provided.

c) Choose OK.

Result



You have created an insight based on an SAP S/4HANA core data services view.

8. Return to the Home page.

Result

You have completed this exercise.

Create a live data model based on SAP HANA data

Business Example

You need to access real time data from your SAP HANA on premise system for simple data analysis.

Task Flow

In order to do this, perform the following steps:

- Create a live data model in SAP Analytics Cloud
- Connect to an SAP HANA on premise system and select a calculation view
- Select order date as the time dimension
- View the data in data analyzer

Task 1: Log on to SAP Analytics Cloud

1. If necessary, log on to SAP Analytics Cloud. If you are already logged in, go to the next task.

Username: A## or B## , where ## is your 2-digit group number, and the letter is what your instructor assigned to you.

Password: Welcome1

Task 2: Create a live data model in SAP Analytics Cloud

1. Create a Live Data Model as follows:

Field	Value
System Type	SAP HANA
Connection	RemoteCO
Data Source	WORKSHOP_PACIFICA_ORDER_FINANCE

Several measures are displayed. *WORKSHOP_PACIFICA_ORDER_FINANCE* is a calculation view in the underlying SAP HANA system.

2. View the dimensions.

Result

There are several time related dimensions as well as product, store, and order related dimensions.

3. Create two groupings as follows:

Table 1:

Dimension	Group
ORDER_&_DATE_ID	Orders
Order_Number	Orders
Order_Date_and_Time	Orders
Product	Product & Sales
Product_Category	Product & Sales
Store	Product & Sales
Sales_Manager	Product & Sales
Location	Product & Sales
Region	Product & Sales
Order_Date	Orders
Order_Time	Orders

4. Configure *Order Date* as the time dimension as follows:

Field	Value
Dimension	Order_Date (Order Date)
Time View	DayGranularity
Field in Time View	DATE(Date)
Default Hierarchy	YHM(Year, Half-Year, Month)

Result

You have mapped the SAP Analytics Cloud time dimension to the SAP HANA time field. Now, you will be able to select various SAP Analytics Cloud time hierarchies and use automatic time determination.

5. Save the model as follows:

Field	Value
Name	U##M_HANA_Live_Model
Description	U##M_HANA_Finance_Data

Task 3: View the data in Data Analyzer

1. Launch Data Analyzer from the model.
2. Configure the Insight as follows:

Rows:	Order_Date_DATE
-------	-----------------

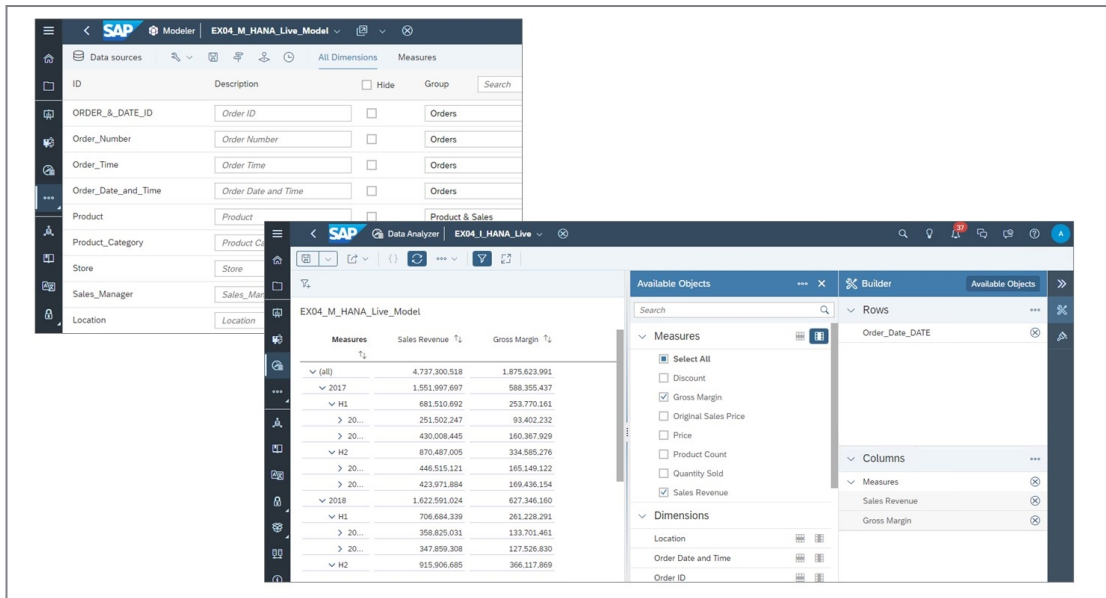
Columns:	
Measures	Sales Revenue
	Gross Margin
Order_Date_DATE drill level	4

Result

Because *Order_Date_DATE* is a time dimension, the system-provided time hierarchy is available for use.

- Set the number of decimals to zero for *Sales Revenue*.

Result



- Save the Insight by using the ribbon or pressing **Ctrl+S**.

Field	Value
Name	U##I_HANA_LIVE
Description	U## HANA Live Insight

- Return to the Home page.

Result

You have completed this exercise.

Create a live data model based on SAP HANA data

Business Example

You need to access real time data from your SAP HANA on premise system for simple data analysis.

Task Flow

In order to do this, perform the following steps:

- Create a live data model in SAP Analytics Cloud
- Connect to an SAP HANA on premise system and select a calculation view
- Select order date as the time dimension
- View the data in data analyzer

Task 1: Log on to SAP Analytics Cloud

1. If necessary, log on to SAP Analytics Cloud. If you are already logged in, go to the next task.

Username: A## or B## , where ## is your 2-digit group number, and the letter is what your instructor assigned to you.


Password: Welcome1

- a) From your training remote desktop, launch Google Chrome.
- b) Type the URL (provided by your instructor) for the SAP Analytics Cloud Tenant you will use in class.
- c) Your instructor has assigned you to a group, either A or B, and also given you a 2-digit group number. Log on to SAP Analytics Cloud using the provided credentials.

Task 2: Create a live data model in SAP Analytics Cloud

1. Create a Live Data Model as follows:

Field	Value
System Type	SAP HANA
Connection	RemoteCO
Data Source	WORKSHOP_PACIFICA_ORDER_FINANCE

- a) From the Navigation Bar choose  *Modeler* (or use the ...More option) and then choose *Live Data Model* in the *Create New* area.
- b) Make the selections as shown in the table above.
- c) Choose *OK*.

Several measures are displayed. *WORKSHOP_PACIFICA_ORDER_FINANCE* is a calculation view in the underlying SAP HANA system.

2. View the dimensions.
 - a) In the ribbon, choose *All Dimensions*.

Result

There are several time related dimensions as well as product, store, and order related dimensions.

3. Create two groupings as follows:


Table 1:

Dimension	Group
ORDER_&_DATE_ID	Orders
Order_Number	Orders
Order_Date_and_Time	Orders
Product	Product & Sales
Product_Category	Product & Sales
Store	Product & Sales
Sales_Manager	Product & Sales
Location	Product & Sales
Region	Product & Sales
Order_Date	Orders
Order_Time	Orders

- a) Enter the groups as shown in the table above.
 - b) In the story or analytic application, the dimensions will now be contained in two logical groups for ease of access.
4. Configure *Order Date* as the time dimension as follows:

Field	Value
Dimension	Order_Date (Order Date)
Time View	DayGranularity
Field in Time View	DATE(Date)

Field	Value
Default Hierarchy	YHM(Year, Half-Year, Month)

- a) Choose  *Create Time Dimension*.
- b) In the *Maintain Time Dimensions* dialog, choose + *Add*.
- c) Configure as shown above.
- d) Choose *Add* → *OK*.

Result

You have mapped the SAP Analytics Cloud time dimension to the SAP HANA time field. Now, you will be able to select various SAP Analytics Cloud time hierarchies and use automatic time determination.


- 5. Save the model as follows:

Field	Value
Name	U##M_HANA_Live_Model
Description	U##M HANA Finance Data

- a) Choose *Save*.
- b) Enter the data provided above.
- c) Choose *Save* twice if needed.
- d) Stay in the model.


Task 3: View the data in Data Analyzer

- 1. Launch Data Analyzer from the model.

- a) In the ribbon, choose .
- b) Use the dropdown to select *Data Analyzer*.

- 2. Configure the Insight as follows:


Rows:	Order_Date_DATE
Columns:	
Measures	Sales Revenue
	Gross Margin
Order_Date_DATE drill level	4

- a) On the upper right, choose the  *Builder* button in order to open the *Builder* and *Available Items* panels.
- b) Drag *Order_Date_DATE* into the *Rows*.

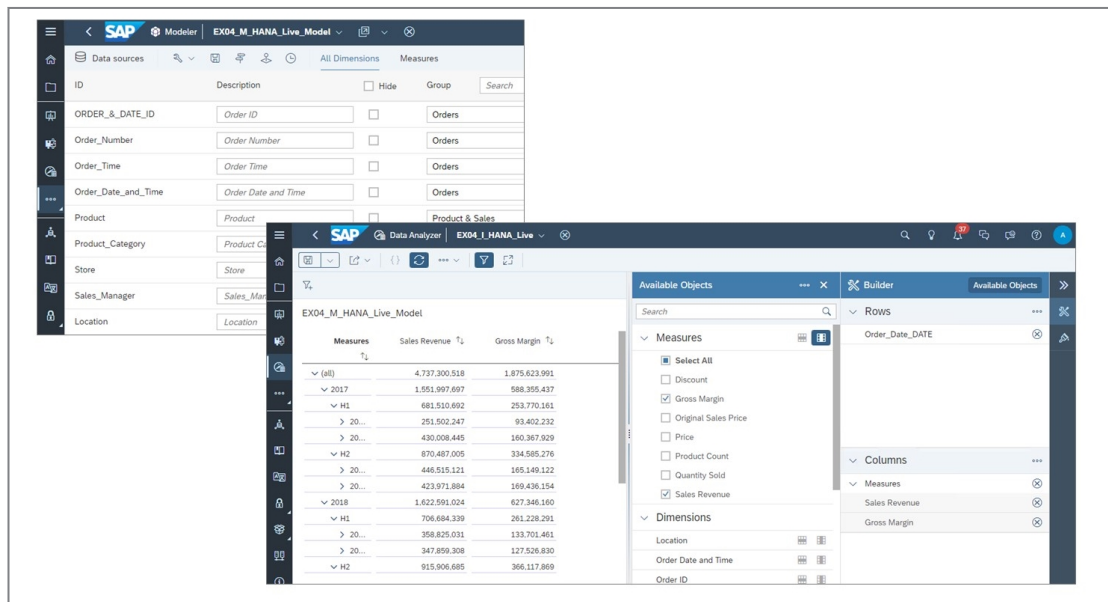
- c) In the Builder pane, choose ... *More* for the *Order_Date_DATE* dimension and select the *Year, Quarter, Month* hierarchy. Choose *OK*.
- d) To set the drill level for *Order_Date_DATE*, in the Builder pane of the *Builder* pane, choose ... *More* for the *Order_Date_DATE* dimension → *Drill* → *Level 4*.

Result

Because *Order_Date_DATE* is a time dimension, the system-provided time hierarchy is available for use.

- 3. Set the number of decimals to zero for *Sales Revenue*.
 - a) On the right, go to  *Styling*.
 - b) Select the *Sales Revenue* column header in the table.
 - c) In the *Styling* pane on the right, set the *Decimal Places* to **0**.

Result



- 4. Save the Insight by using the ribbon or pressing **Ctrl+S**.

Field	Value
Name	U##I_HANA_LIVE
Description	U## HANA Live Insight

- a) Choose *Save*.
- b) Enter the data as provided above.
- c) Choose *OK*.
- 5. Return to the Home page.

Result

You have completed this exercise.

Create visualizations for a story

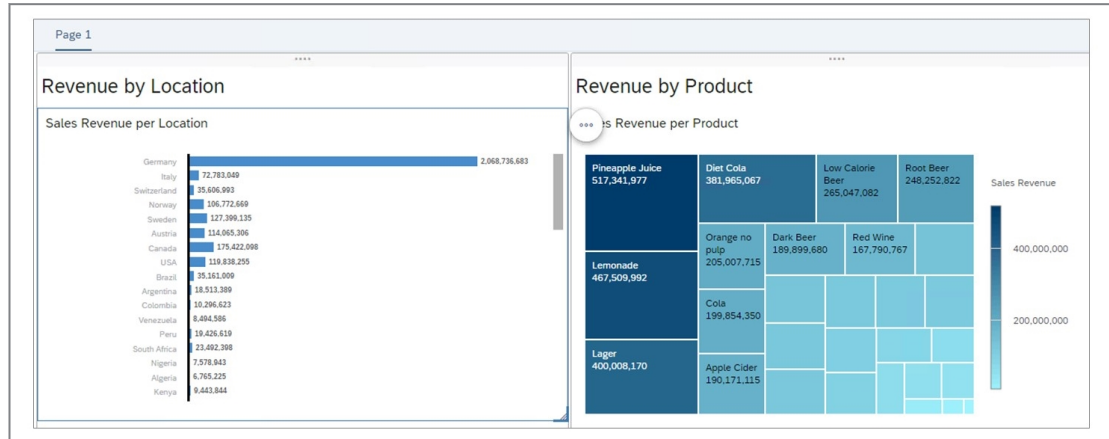
You need to create a story containing charts on a responsive page.

1. Create a new optimized story with a responsive page.
2. Name the left lane as **Revenue by Location**.
3. Name the right lane as **Revenue by Product**.
4. Add a bar chart to the left lane with the *P00M_Pacifica_Order_Finance* model as a data source.
5. Add the *Sales Revenue* measure.
6. Add the *Location* dimension.
7. Enlarge the chart so that it fills most of the left lane.
8. Add a chart to the right lane with the *P00M_Pacifica_Order_Finance* model as a data source.
9. Change the chart type to *Tree Map*.
10. Add the *Sales Revenue* measure.
11. Add the *Product* dimension.
12. Close the *Builder* pane.
13. Enlarge the tree map chart so that it fills most of the right lane.
14. Save the story as follows:

Table 2:

Field	Value
Name	U##S_Visualizations
Description	U## Visualizations Story

Result





15. Return to the Home page.

Result

You have completed this exercise.

Create visualizations for a story

You need to create a story containing charts on a responsive page.

1. Create a new optimized story with a responsive page.
 - a) In the *Navigation Bar*, choose  *Stories*.
 - b) Choose *Responsive*.
 - c) Confirm that *Optimized Design Experience* is selected.
 - d) Choose *Create*.
2. Name the left lane as **Revenue by Location**.
 - a) In the left lane, choose *Click to enter title*.
 - b) Enter **Revenue by Location**.
3. Name the right lane as **Revenue by Product**.
 - a) In the right lane, choose *Click to enter title*.
 - b) Enter **Revenue by Product**.
4. Add a bar chart to the left lane with the *P00M_Pacifica_Order_Finance* model as a data source.
 - a) Click in the left lane.
 - b) In the ribbon, click the  chart icon. (You may need to use the . . . *More* option in the menu.)
 - c) Select a Dataset or Model: Choose *Public* → *SACE11_34* → *Content* and select *P00M_Pacifica_Order_Finance*.
5. Add the *Sales Revenue* measure.
 - a) In the *Builder* pane on the right, choose *+At Least 1 Measure Required*.
 - b) Select *Sales Revenue*.
6. Add the *Location* dimension.
 - a) Choose *+Add Dimension*.
 - b) Select *Location*.
7. Enlarge the chart so that it fills most of the left lane.
8. Add a chart to the right lane with the *P00M_Pacifica_Order_Finance* model as a data source.
 - a) Click in the right lane.
 - b) In the ribbon, click the chart icon.

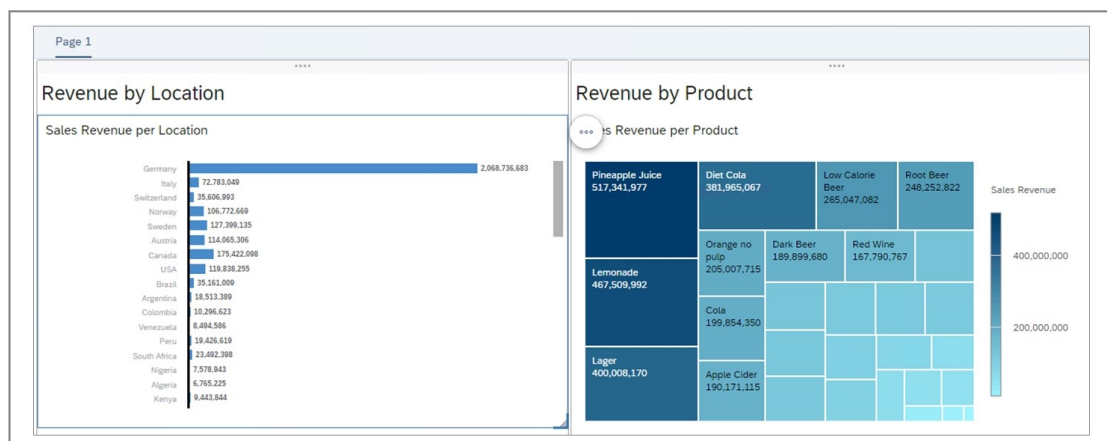
9. Change the chart type to *Tree Map*.
 - a) Under *Currently Selected Chart*, choose *Bar/Column*.
 - b) Select *Tree Map*.
10. Add the *Sales Revenue* measure.
 - a) In the *Builder* pane on the right, choose *+At Least 1 Measure Required*.
 - b) Select *Sales Revenue*.
11. Add the *Product* dimension.
 - a) Choose *+At Least 1 Dimension Required*.
 - b) Select *Product*.
12. Close the *Builder* pane.
 - a) On the upper right, choose the *Designer* button.
 - b) The *Builder* pane should be closed.
13. Enlarge the tree map chart so that it fills most of the right lane.
14. Save the story as follows:

Table 2:

Field	Value
Name	U##S_Visualizations
Description	U## Visualizations Story

- a) Choose *Save* in the ribbon or press *Ctrl+S*.
- b) Enter the data from the table above.
- c) Choose *OK*.

Result



15. Return to the Home page.

Result

You have completed this exercise.

Build a simple analytic application

Business Example

You are an advanced business user of SAP Analytics Cloud. You want to create a dashboard to provide management with an overview of the sales revenue for different regions. You want to analyze the data in a chart or a table format and filter the results based on different product categories.

Task Flow

In this exercise, you will perform the following tasks:

- Create an analytic application
- Add a table and chart
- Configure a radio button with script to display either the chart or the table
- Set up a dropdown widget that uses loops through an array to display products

1. Log on to SAP Analytics Cloud.

- User: **A##** or **B##**.

is your 2-digit group number, and the letter is what your instructor assigned to you.

- Password: **Welc0me1**

2. Open the Home screen.

Task 1: Create an analytic application

1. Create a new analytic application.
2. Insert a Clock widget to the Canvas, remove the logo, and resize the clock widget.

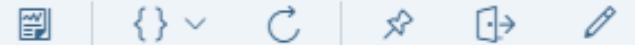
Task 2: Add a table and chart

1. Insert a table and connect it to the *P00M_Pacifica_Order_Finance* model. In Rows, use the *Region* dimension. In Columns, use the *Sales Revenue* measure.
2. Insert a column chart using the *P00M_Pacifica_Order_Finance* model. Use *Region* as the Dimension. Use *Sales Revenue* as the Measure.
3. Save the application as follows:

Field	Value
Name	U##AD_Finance
Description	U## Finance Application

- Run the Analytical Application and edit the run mode. NOTE: Ignore any messages regarding allowing pop-ups.

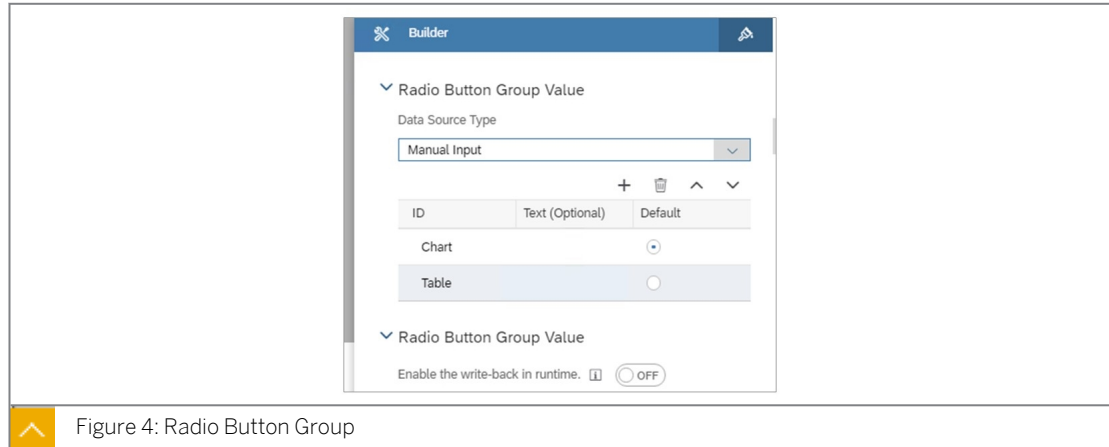
Result

In *Present* mode, a toolbar  is visible. The toolbar is used to refresh the application, edit prompts, or switch to full screen.

- Close the extra Chrome tab.

Task 3: Configure a radio button

- In design mode, add a radio button group component as follows:

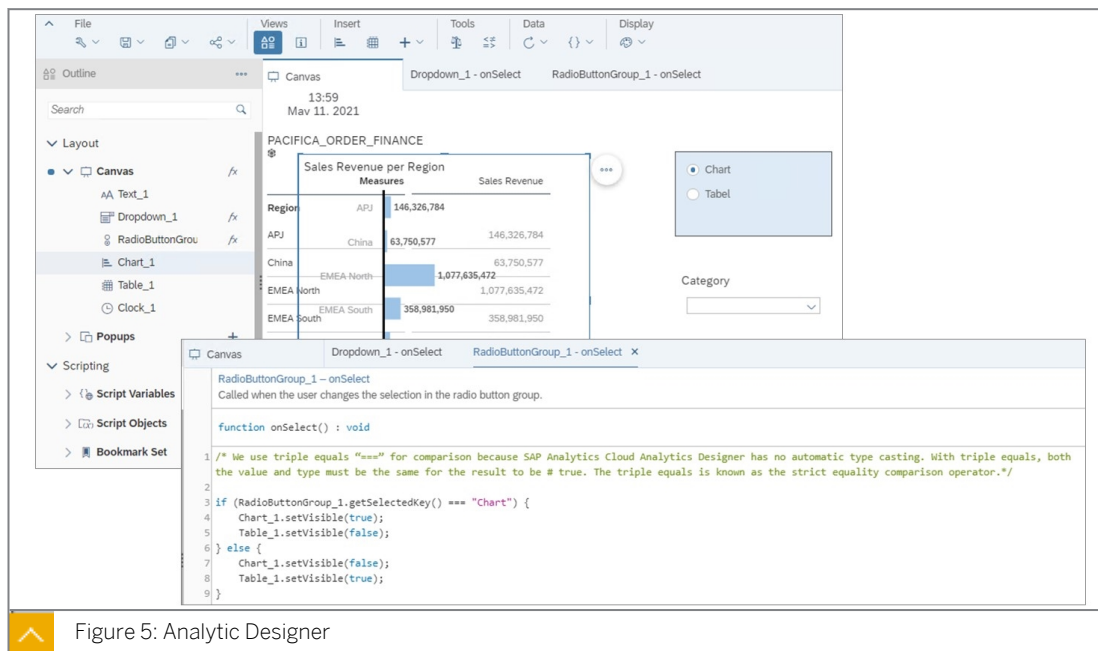


- Format the radio button group with a light gray background and all borders.
- Set the table to be hidden at view time.
- Position the chart so that it is directly on top of the table. Resize the table and chart if necessary to ensure they are the same size.
- Add the following script to the `onSelect()` function of the radio button group:

```
/* We use triple equals "===" for comparison because SAP Analytics
Cloud Analytics Designer has no automatic type casting. With triple
equals, both the value and type must be the same for the result to be
# true. The triple equals is known as the strict equality comparison
operator.*/

if (RadioButtonGroup_1.getSelectedKey() === "Chart") {
    Chart_1.setVisible(true);
    Table_1.setVisible(false);
} else {
    Chart_1.setVisible(false);
    Table_1.setVisible(true);
}
```

Result



The screenshot shows the SAP Analytics Cloud Designer interface. The main canvas displays a table titled 'Sales Revenue per Region' with columns for Region, Measures, and Sales Revenue. The table data is as follows:

Region	Measures	Sales Revenue
APJ		146,326,784
China		63,750,577
EMEA North		1,077,635,472
EMEA South		358,981,950

Next to the table is a bar chart showing the same data. A radio button group is positioned to the right of the chart, with 'Chart' selected. Below the canvas, the code editor shows the following JavaScript code for the 'onSelect' event:

```
function onSelect() : void
1 /* We use triple equals "===" for comparison because SAP Analytics Cloud Analytics Designer has no automatic type casting. With triple equals, both
2 the value and type must be the same for the result to be # true. The triple equals is known as the strict equality comparison operator.*/
3 if (RadioButtonGroup_1.getSelectedKey() === "Chart") {
4   Chart_1.setVisible(true);
5   Table_1.setVisible(false);
6 } else {
7   Chart_1.setVisible(false);
8   Table_1.setVisible(true);
9 }
```

Figure 5: Analytic Designer

6. Save the changes to your application.
7. Run the application and switch between the table and chart with the radio buttons.



Note:

If the radio button group is not visible, check its *Styling* options to make sure *Show this item at view time* is selected. (You want to see it at view time.)

Task 4: Set up a dropdown widget

1. Add a dropdown widget and text widget above it. Enter the text: **Category**.
2. Add the following code to the Canvas onInitialization event:

```
/* The script uses the datasource of the Table and reads the members
of the Product Category dimension and adds them to an array. We later
loop through the array, read the dimension members and populate the
Dropdown */
```

```
var categories =
Table_1.getDataSource().getMembers("Product_Category");
for (var counter = 0; counter < categories.length; ++counter) {
  Dropdown_1.addItem(categories[counter].id,
categories[counter].description);
}
```

Result

The code will populate the dropdown with product categories from the datasource when the application opened.

3. Add the following code to the dropdown component:

```
/* The value from the dropdown is read and used to set a dimension
filter for both the chart and the table. */
```

```

var selected_category = Dropdown_1.getSelectedKey();
Chart_1.getDataSource().setDimensionFilter("Product_Category",
selected_category);
Table_1.getDataSource().setDimensionFilter("Product_Category",
selected_category);

```

Result

The dropdown will filter the chart and table on the selected product category.

4. Choose Save.
5. Run the application. Filter on the Juice product category. Note: Ignore any messages regarding allowing pop-ups.

Result

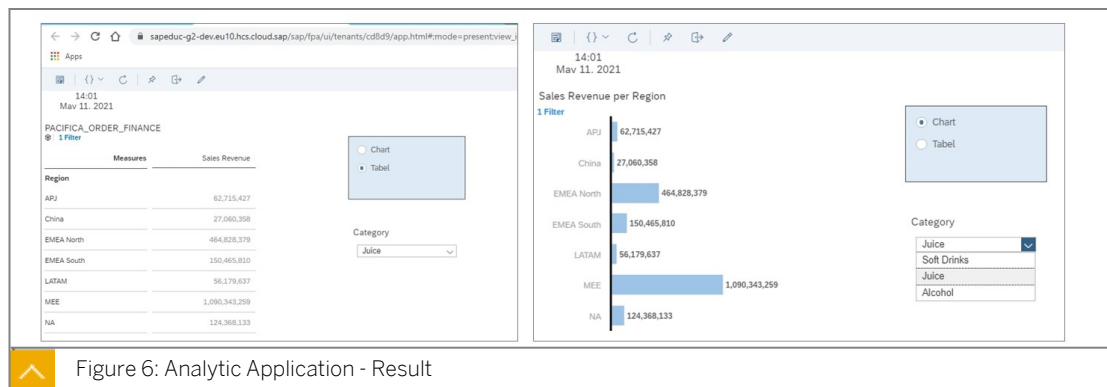


Figure 6: Analytic Application - Result

6. Return to the Home page.

Result

You have completed this exercise.

Build a simple analytic application

Business Example

You are an advanced business user of SAP Analytics Cloud. You want to create a dashboard to provide management with an overview of the sales revenue for different regions. You want to analyze the data in a chart or a table format and filter the results based on different product categories.

Task Flow

In this exercise, you will perform the following tasks:

- Create an analytic application
- Add a table and chart
- Configure a radio button with script to display either the chart or the table
- Set up a dropdown widget that uses loops through an array to display products


1. Log on to SAP Analytics Cloud.

- User: **A##** or **B##**.
is your 2-digit group number, and the letter is what your instructor assigned to you.
- Password: **Welc0me1**
 - a) From your training remote desktop, launch Google Chrome.
 - b) Enter the URL (provided by your instructor) for the SAP Analytics Cloud tenant you will use in class.
 - c) Your instructor has assigned you to a group, either A or B, and also given you a 2-digit group number. Log on to SAP Analytics Cloud using the credentials provided.

2. Open the Home screen.

Task 1: Create an analytic application




1. Create a new analytic application.

- a) From the Navigation Bar choose  *Analytic Applications*.
- b) Under *Create New*, choose the *Application* card.

2. Insert a Clock widget to the Canvas, remove the logo, and resize the clock widget.

- a) From the menu bar, choose + → *More Widgets* → *Clock*.
- b) Choose *Designer* and toggle off the *Show Logo* property.
- c) Resize the *Clock* to make it smaller and position it on the top-left of the *Canvas* page.


Task 2: Add a table and chart

1. Insert a table and connect it to the *P00M_Pacifica_Order_Finance* model. In Rows, use the *Region* dimension. In Columns, use the *Sales Revenue* measure.
 - a) From the *Insert* portion of the menu bar, choose .
 - b) In the *Select Model* box, choose *Select other model*
 - c) Go to *Public* → *SACE11_34* → *Content* and choose the *P00M_Pacifica_Order_Finance* model.
 - d) From the *Builder* panel, add the *Region* dimension to *Rows*.
 - e) Under *Columns*, choose  *Manage Filters* next to *Measures* and choose only the *Sales Revenue* measure.
 - f) Position the table below the clock.
2. Insert a column chart using the *P00M_Pacifica_Order_Finance* model. Use *Region* as the Dimension. Use *Sales Revenue* as the Measure.
 - a) In the menu bar, choose .
 - b) From the *Builder* panel, choose *Add Measure* and choose *Sales Revenue*.
 - c) Choose *Add Dimension* and choose *Region*.
 - d) Position the chart next to the table.
3. Save the application as follows:

Field	Value
Name	U##AD_Finance
Description	U## Finance Application

4. Run the Analytical Application and edit the run mode. NOTE: Ignore any messages regarding allowing pop-ups.
 - a) On the upper right, choose *Run Analytic Application*. NOTE: Ignore any messages regarding allowing pop-ups.
 - b) By default, the application runs in *Present* mode.
 - c) Hover near the top of the screen to see the toolbar.

Result

In *Present* mode, a toolbar  is visible. The toolbar is used to refresh the application, edit prompts, or switch to full screen.

5. Close the extra Chrome tab.

Task 3: Configure a radio button

1. In design mode, add a radio button group component as follows:

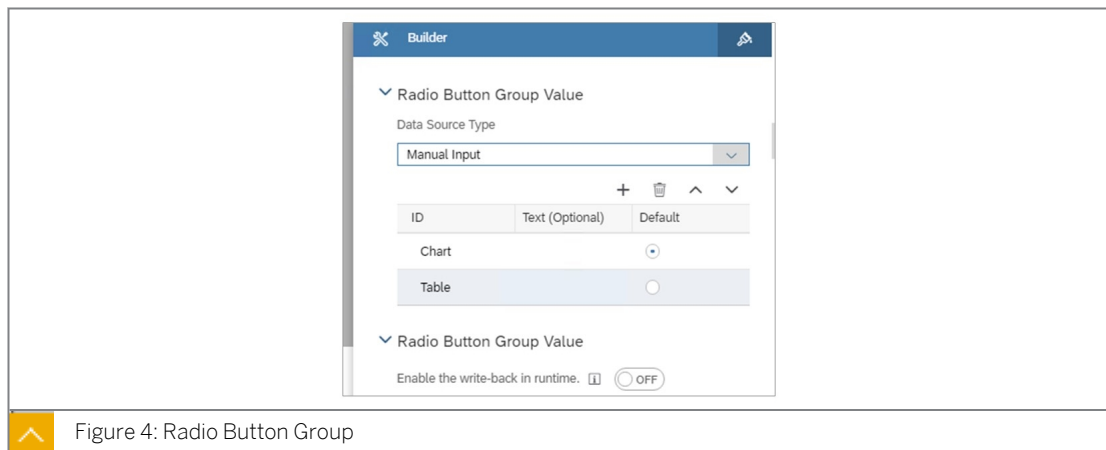


Figure 4: Radio Button Group

- a) Return to the *Analytic Designer*.
 - b) From the *Insert* portion of the menu bar, choose *+Add* → *Radio Button Group*.
 - c) In the *Builder* panel, edit the *Radio Button* ID values to *Chart* and *Table*. Select *Chart* as the default value.
 - d) Position the radio button group to the right of the chart, and resize if necessary.
2. Format the radio button group with a light gray background and all borders.
 3. Set the table to be hidden at view time.
 - a) Select the table and in the *Styling* pane on the right, scroll to *Actions*.
 - b) Deselect *Show this item at view time*.
 4. Position the chart so that it is directly on top of the table. Resize the table and chart if necessary to ensure they are the same size.


5. Add the following script to the `onSelect()` function of the radio button group:

```

/* We use triple equals "===" for comparison because SAP Analytics
Cloud Analytics Designer has no automatic type casting. With triple
equals, both the value and type must be the same for the result to be
# true. The triple equals is known as the strict equality comparison
operator.*/

if (RadioButtonGroup_1.getSelectedKey() === "Chart") {
    Chart_1.setVisible(true);
    Table_1.setVisible(false);
} else {
    Chart_1.setVisible(false);
    Table_1.setVisible(true);
}

```

- a) Locate the `RadioButtonGroup_1` on the upper left.
- b) Hover on `RadioButtonGroup_1`, and choose  to open the script editor.
- c) In row 1, add the script provided above.

Result

The screenshot shows the SAP Analytics Designer interface. The main canvas displays a table titled 'Sales Revenue per Region' with columns for Region and Sales Revenue. The data is as follows:

Region	Sales Revenue
APJ	146,326,784
China	63,750,577
EMEA North	1,077,635,472
EMEA South	358,981,950

Below the table, there is a radio button group with two options: 'Chart' (selected) and 'Table'. A dropdown menu labeled 'Category' is also visible. The script editor shows the following code:

```

function onSelect() : void
1 /* We use triple equals "===" for comparison because SAP Analytics Cloud Analytics Designer has no automatic type casting. With triple equals, both
2 the value and type must be the same for the result to be # true. The triple equals is known as the strict equality comparison operator.*/
3 if (RadioButtonGroup_1.getSelectedKey() === "Chart") {
4   Chart_1.setVisible(true);
5   Table_1.setVisible(false);
6 } else {
7   Chart_1.setVisible(false);
8   Table_1.setVisible(true);
9 }

```

Figure 5: Analytic Designer

6. Save the changes to your application.
7. Run the application and switch between the table and chart with the radio buttons.



Note:

If the radio button group is not visible, check its *Styling* options to make sure *Show this item at view time* is selected. (You want to see it at view time.)

- a) From the menu, choose *Run Analytic Application*.
- b) Use the radio button to dynamically switch between *table* or *chart*.
- c) Return to the Analytic Designer.

Task 4: Set up a dropdown widget

1. Add a dropdown widget and text widget above it. Enter the text: **Category**.
 - a) From the *Insert* portion of the menu bar, choose + and insert a dropdown.
 - b) From the *Insert* portion of the menu bar, choose + and insert a text widget.
 - c) Position the drop down next to the radio button group, and place the text box directly above the dropdown box.
 - d) Place the cursor inside the text box and enter **Category**, which will serve as a label for the dropdown.
2. Add the following code to the Canvas onInitialization event:


```

/* The script uses the datasource of the Table and reads the members
of the Product Category dimension and adds them to an array. We later
loop through the array, read the dimension members and populate the
Dropdown */

```

```
var categories =
```

```
Table_1.getDataSource().getMembers("Product_Category");
for (var counter = 0; counter < categories.length; ++counter) {
    Dropdown_1.addItem(categories[counter].id,
        categories[counter].description);
}
```

- a) On the upper left, choose  *Edit Scripts* next to *Canvas*. Select *onInitialization*.
- b) Add the above script in row 1.


Result

The code will populate the dropdown with product categories from the datasource when the application opened.

- 3. Add the following code to the dropdown component:

```
/* The value from the dropdown is read and used to set a dimension
filter for both the chart and the table. */

var selected_category = Dropdown_1.getSelectedKey();
Chart_1.getDataSource().setDimensionFilter("Product_Category",
selected_category);
Table_1.getDataSource().setDimensionFilter("Product_Category",
selected_category);
```

- a) Choose  next to *Dropdown_1*.
- b) Add the code above into row 1.

Result

The dropdown will filter the chart and table on the selected product category.

- 4. Choose *Save*.
- 5. Run the application. Filter on the *Juice* product category. Note: Ignore any messages regarding allowing pop-ups.

Result

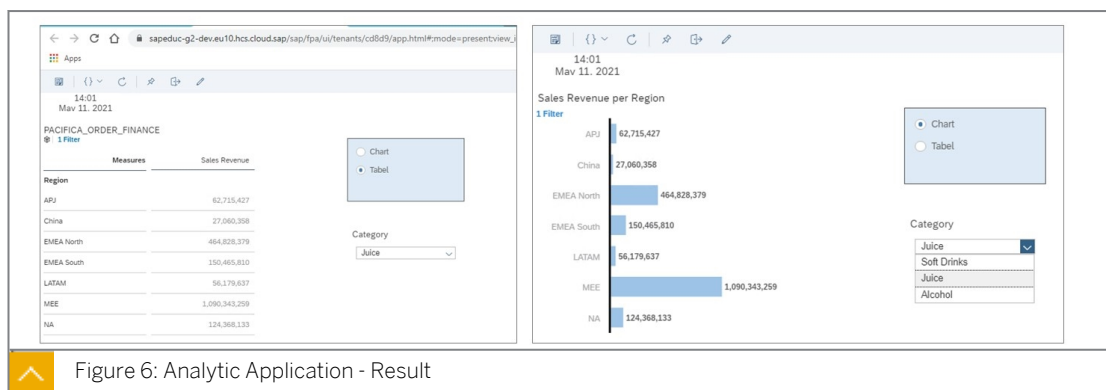


Figure 6: Analytic Application - Result

- 6. Return to the Home page.

Result

You have completed this exercise.

Perform manual input planning

Task Flow

In this exercise, you will perform the following planning activities:


- Create a new model and a new story
- Input data at the parent level
- Use simulation features
- Work with private data and publish it
- Lock cells



Note:

In this exercise, when a value or object name includes ##, replace ## with the number that your instructor assigned to you.

Task 1: Create a New Model

1. Access the P00M_Op_Income planning model in the public folder for SACE11 content. On the upper left, navigate to  Browse → Files → Public → SACE11_34 → Content.
2. Copy the P00M_Op_Income planning model and its data to My Files as follows:

Name	U##M_Op_Income
Description	U## Operating Income
<input checked="" type="checkbox"/> Include data	

Task 2: Create a New Story


1. Create a new story.
2. Add a canvas page. When prompted to select a design mode type, choose *Optimized Design Experience*.
3. Add a table to the page based on the U##M_Op_Income model.
4. Rename the page to **Income Statement Planning**.
5. Save the story to the My Files folder as follows:

Name	U##S_IS_Plan
------	--------------

Description	U##S Income Statement Planning
-------------	--------------------------------

Task 3: Configure the Data Table

1. In the Builder pane on the right, set the Filter values as follows:

Dimension	Member Value
Date (Member)	2020
Entity	United States
Account	Operating Income (use the search )
Version	Actual and Forecast (not Pub_Forecast)

2. Expand the *Account* dimension to level 6.

3. Expand the table if necessary.

Result

Operating Income is around 860 for Actual and 164 for Forecast.

4. Add a percentage variance column.

5. Save the story by pressing **Ctrl+S**.

Task 4: Work with the Data Simulation Features

1. Create a private version as follows:

Field	Value
Version Name	PrivateData
Category	Forecast
<input checked="" type="radio"/> Copy all data	

Result

A new column is added for *PrivateData*.

2. Change the Gross Revenue PrivateData to **2500** and then use the undo data change feature.

Result

The original values appear.

3. Redo the data change and then view the history. Choose the data corresponding to the copy to the private version.

Result


The original data appears.

4. Change the Forecast Gross Revenue to **2400** and then revert it.

Result

Since the forecast version is public data, you can revert it.

Task 5: Use the Disaggregation Feature

1. Change the *Cost of Goods Sold* private data to 1000. What happened to the values for the children of the Cost of Goods Sold parent account?
2. Undo the data change.
3. Use the *More* menu (or choose  Refresh from the ribbon) to refresh the data so that the cells are not shaded in yellow.
4. Lock the cell for the Labor private data and see what happens when Cost of Goods Sold is changed again.

Result

Children accounts for Cost of Goods Sold are changed proportionately, except for Labor. The changed cells are shaded in yellow.

5. Unlock the *Labor* private data and increase it by 100 so that *Cost of Goods Sold* becomes 1100.

Task 6: Publish the Private Data

You are satisfied with the *Cost of Goods Sold* private data value of 1100 and you would like to incorporate it into the Forecast data.

1. Publish the *PrivateData* as *Forecast*.

Result

Cost of Goods Sold for the *Forecast* version is now 1100. The *PrivateData* column is gone.

2. Save the story and return to the Home page.

Perform manual input planning

Task Flow

In this exercise, you will perform the following planning activities:


- Create a new model and a new story
- Input data at the parent level
- Use simulation features
- Work with private data and publish it
- Lock cells




Note:

In this exercise, when a value or object name includes ##, replace ## with the number that your instructor assigned to you.


Task 1: Create a New Model

1. Access the P00M_Op_Income planning model in the public folder for SACE11 content.
On the upper left, navigate to  Browse → Files → Public → SACE11_34 → Content.
2. Copy the P00M_Op_Income planning model and its data to My Files as follows:

Name	U##M_Op_Income
Description	U## Operating Income
<input checked="" type="checkbox"/> Include data	

- a) Select the P00M_Op_Income planning model.
- b) Near the top of the page, choose  Copy To.
- c) Choose My Files from the upper left corner of the dialog box and enter the information as shown in the preceding table.
- d) Choose OK.

Task 2: Create a New Story

1. Create a new story.
 - a) From the Navigation Bar choose  Stories.


2. Add a canvas page. When prompted to select a design mode type, choose *Optimized Design Experience*.
3. Add a table to the page based on the *U##M_Op_Income* model.
 - a) Choose *Table* to add it to the page.
 - b) Select the *U##M_Op_Income* model.
4. Rename the page to **Income Statement Planning**.
 - a) Choose the dropdown arrow for *Page 1* and choose *Rename*.
 - b) Enter the new name for the page and choose *Rename*.
5. Save the story to the *My Files* folder as follows:

Name	U##S_IS_Plan
Description	U##S Income Statement Planning

- a) Press **Ctrl+S**.
- b) Enter the details as shown in the table above and choose *OK*.

Task 3: Configure the Data Table

1. In the Builder pane on the right, set the Filter values as follows:

Dimension	Member Value
Date (Member)	2020
Entity	United States
Account	Operating Income (use the search )
Version	Actual and Forecast (not <i>Pub_Forecast</i>)

- a) In the Builder pane, choose *+Add Filters* to add a new dimension to the filter.
 - b) Set the filter values according to the table above.
 - c) Select both *Actual* and *Forecast* (the full technical name for Forecast may appear as *Public.Forecast-Forecast*).
2. Expand the *Account* dimension to level 6.
 - a) In the table, right-click on *Account* → Choose *Drill*.
 - b) Select *Level 6*.
 3. Expand the table if necessary.

Result

 Operating Income is around 860 for Actual and 164 for Forecast.
 4. Add a percentage variance column.
 - a) Highlight both column headers: *Actual* and *Forecast*.
 - b) Right-click and select *Add Calculation* → *Percentage Difference* → *Single*.
 5. Save the story by pressing **Ctrl+S**.

Task 4: Work with the Data Simulation Features

1. Create a private version as follows:

Field	Value
Version Name	PrivateData
Category	Forecast
<input checked="" type="radio"/> Copy all data	

- a) Right-click in the *Forecast* column and choose *Version* → *Copy Version*.
- b) Enter the data from above.
- c) Choose *OK*.

Result

A new column is added for *PrivateData*.

2. Change the Gross Revenue *PrivateData* to **2500** and then use the undo data change feature.
 - a) For Gross Revenue and *PrivateData*, type **2500** and press *Enter*.
 - b) Right-click and choose *Version* → *Undo Data Change*.

Result

The original values appear.

3. Redo the data change and then view the history. Choose the data corresponding to the copy to the private version.
 - a) Right-click and choose *Version* → *Redo Data Change*.
 - b) Right-click and choose *Version* → *History*.

Result

The Version History appears on the right. *2500000000* is displayed as the current data (2500 Million), and below that the *Copy to a Private Version* is displayed.

- c) Choose *Copy to a Private Version*.

Result

The original data appears.

4. Change the Forecast Gross Revenue to **2400** and then revert it.
 - a) Input **2400** for *Forecast Gross Revenue*.
 - b) Right-click and choose *Version* → *Revert*.
 - c) Choose *OK* when prompted about the impact to the public data.

Result

Since the forecast version is public data, you can revert it.

Task 5: Use the Disaggregation Feature

1. Change the *Cost of Goods Sold* private data to 1000. What happened to the values for the children of the *Cost of Goods Sold* parent account?


- a) Click on the *Cost of Goods Sold* data cell in the *PrivateData* version and type **1000**. Press *Enter*.

Result

Raw material, labor, and so on are all changed proportionately. The changed cells are shaded in yellow.

2. Undo the data change.

- a) Right-click in the *PrivateData* column.
- b) Choose *Version* → *Undo Data Change*.

3. Use the *More* menu (or choose  Refresh from the ribbon) to refresh the data so that the cells are not shaded in yellow.

4. Lock the cell for the *Labor* private data and see what happens when *Cost of Goods Sold* is changed again.

- a) Right-click on the cell for *Labor* and *PrivateData* and choose *Lock Cell*.
- b) Change the *Cost of Goods Sold PrivateData* to **1000**.

Result

Children accounts for *Cost of Goods Sold* are changed proportionately, except for *Labor*. The changed cells are shaded in yellow.

5. Unlock the *Labor* private data and increase it by 100 so that *Cost of Goods Sold* becomes 1100.

- a) Right-click the cell and choose *Lock Cell* again. The value is no longer shaded.
- b) Click the cell for the *Labor* private data and type **+100**, then press *Enter*.

Task 6: Publish the Private Data

You are satisfied with the *Cost of Goods Sold* private data value of 1100 and you would like to incorporate it into the *Forecast* data.

1. Publish the *PrivateData* as *Forecast*.

- a) Right-click anywhere in the *PrivateData* column and choose *Version* → *Publish*
- b) In the dialog select *Forecast* and choose *Publish*.

Result

Cost of Goods Sold for the *Forecast* version is now 1100. The *PrivateData* column is gone.

2. Save the story and return to the Home page.

Use predictive forecast

Task Flow

In this exercise, you will perform the following tasks:

- Log on to SAP Analytics Cloud
- Copy a Model
- Create a New Story
- Run a Predictive Forecast

Task 1: Log on to SAP Analytics Cloud

1. Log on to SAP Analytics Cloud. Go to the next task if you are already logged on.
 - User: **A##** or **B##**.
is your 2-digit group number, and the letter is what your instructor assigned to you.
 - Password: **Welc0me1**

Task 2: Create a New Model

1. Access the *P00M_Operating_Income_Plan* planning model from the SACE11 content folder in the public area.
2. Copy the *P00M_Operating_Income_Plan* model and its data to My Files as follows:

Name	Operating_Income_Plan_##
Description	Operating Income Plan ##
<input checked="" type="checkbox"/> Include data	

Task 3: Create a New Story

1. In a new story, add a canvas page with a time series chart to forecast data in the *Operating_Income_Plan_##* model.
2. Configure the time series chart as follows:

Field	Value
Measure	Gross Sales (use the field search)
Time Dimension	Date
Filter:	
Version	Actual

Field	Value
Date (Member)	2017 Q1, Q2, Q3

- Widen the chart.
- Rename the page to **Sales Forecast**.
- Save the story as follows:

Name	U##S_Predictive_Forecast
Description	U##S Predictive Forecast

Task 4: Run a Predictive Forecast

Using the predefined forecast function in SAP Analytics Cloud, predict how revenue will trend next year based on historical data.

- In the time series chart, add an Automatic Forecast.

Result

The automatic forecast shows the data for the future and a part of the past. If you do not want to show the historical data, deselect *Past Period Forecast* via *More Actions* → *Show Hide*).

- OPTIONAL: Access styling for the chart and change the background to green so that you can see the icons on the next step more easily. Adjust the Data Points Fill Color to yellow and the Font color to white.
- Select the full-screen option to see the details of your chart more easily.
- In the time series chart, add a Linear Regression forecast.
- In the time series chart, add a Triple Exponential Smoothing forecast.
- Hover on a data point so that you can see the Confidence Interval.

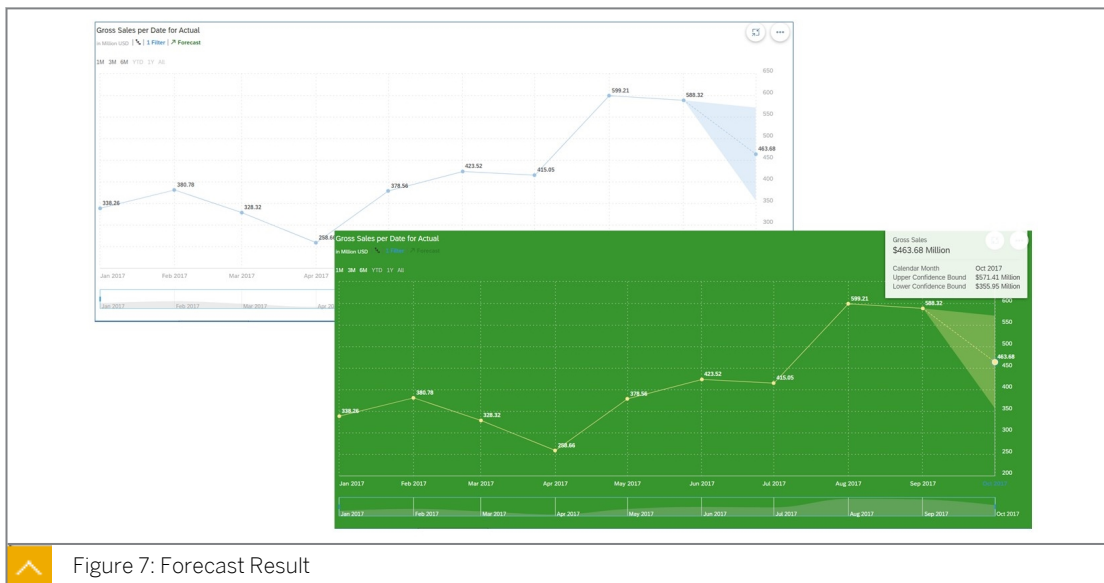


Figure 7: Forecast Result

Result

- Save the story from the ribbon or press **Ctrl+S**. Return to the Home page.

Result

You have completed this exercise.

Use predictive forecast

Task Flow

In this exercise, you will perform the following tasks:

- Log on to SAP Analytics Cloud
- Copy a Model
- Create a New Story
- Run a Predictive Forecast

Task 1: Log on to SAP Analytics Cloud

1. Log on to SAP Analytics Cloud. Go to the next task if you are already logged on.
 - User: **A##** or **B##**.
is your 2-digit group number, and the letter is what your instructor assigned to you.
 - Password: **Welc0me1**
 - a) From your training remote desktop, launch Google Chrome.
 - b) Enter the URL (provided by your instructor) for the SAP Analytics Cloud tenant you will use in class.
 - c) Your instructor has assigned you to a group, either A or B, and also given you a 2-digit group number. Log on to SAP Analytics Cloud using the credentials above.

Task 2: Create a New Model

1. Access the *P00M_Operating_Income_Plan* planning model from the SACE11 content folder in the public area.
 - a) From the Navigation Bar choose *Files* → *Public* → *SACE11_34* → *Content*.
2. Copy the *P00M_Operating_Income_Plan* model and its data to My Files as follows:

Name	Operating_Income_Plan_##
Description	Operating Income Plan ##
<input checked="" type="checkbox"/> Include data	

- a) Select the *P00M_Operating_Income_Plan* model.
- b) Near the top of the page, choose *Copy To*.
- c) Choose *My Files* from the upper left corner of the dialog box and enter the information as shown in the preceding table.

- d) Choose *OK*.

Task 3: Create a New Story

1. In a new story, add a canvas page with a time series chart to forecast data in the *Operating_Income_Plan_##* model.
 - a) From the Navigation Bar choose *Stories*.
 - b) Choose *Canvas*.
 - c) In the *Select Design Mode Type* dialog, choose *Classic Design Experience* and click *Create*.
 - d) From the *Add an object to the story canvas* area, choose *Chart*.
 - e) In the *Select Dataset or Model* dialog box, choose your *Operating_Income_Plan_##* model.
 - f) Under *Chart Structure* on the right, use the *Trend* drop-down to select *Time Series*.
2. Configure the time series chart as follows:

Field	Value
Measure	Gross Sales (use the field search)
Time Dimension	Date
Filter:	
Version	Actual
Date (Member)	2017 Q1, Q2, Q3

- a) Configure the time series as shown above.
3. Widen the chart.
4. Rename the page to **Sales Forecast**.
 - a) Choose the dropdown arrow for Page 1 and choose *Rename*.
 - b) Type the new name for the page and choose *Rename*.
5. Save the story as follows:


Name	U##S_Predictive_Forecast
Description	U##S Predictive Forecast

- a) In the toolbar, choose *Save*.
- b) Enter the details as shown in the table and choose *OK*.

Task 4: Run a Predictive Forecast

Using the predefined forecast function in SAP Analytics Cloud, predict how revenue will trend next year based on historical data.

1. In the time series chart, add an Automatic Forecast.

a) In the time series chart, choose  *More Actions*.

b) Choose *Add* → *Forecast* → *Automatic Forecast*.

Result

The automatic forecast shows the data for the future and a part of the past. If you do not want to show the historical data, deselect *Past Period Forecast* via *More Actions* → *Show Hide*).

2. OPTIONAL: Access styling for the chart and change the background to green so that you can see the icons on the next step more easily. Adjust the Data Points Fill Color to yellow and the Font color to white.

a) In the *Builder* pane, choose *Styling*.

b) Change the *Background Color* to green.

c) In the *Data Points* section, change the *Fill Color* to yellow.


d) In the *Font* section, change the *Color* to white.

3. Select the full-screen option to see the details of your chart more easily.

a) Select the chart and choose  *More*.


b) Choose *Fullscreen*.

4. In the time series chart, add a Linear Regression forecast.

a) In the time series chart, choose  *More Actions*.

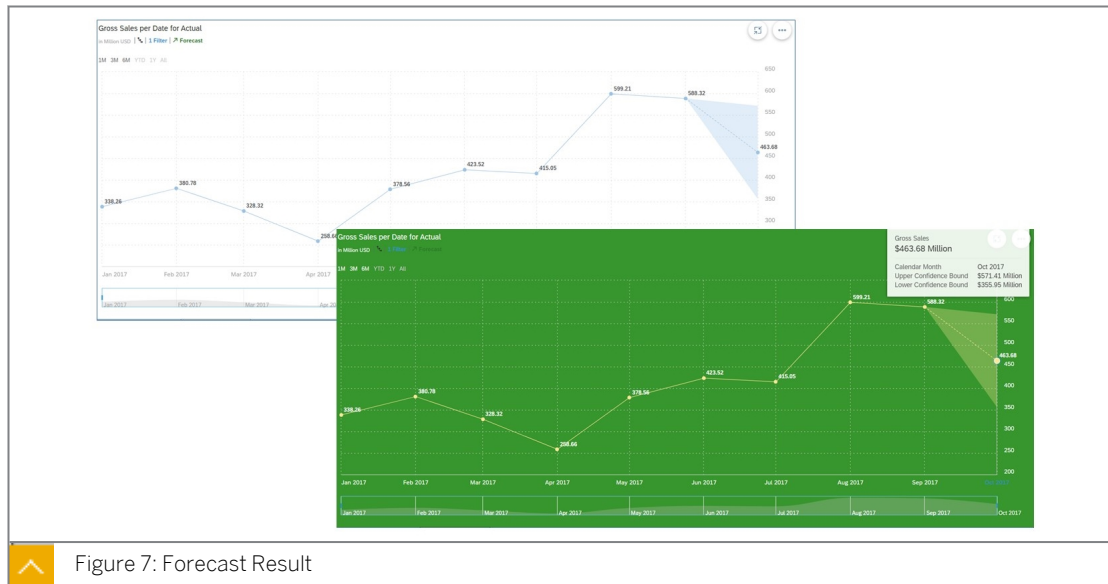
b) Choose *Add* → *Forecast* → *Advanced Options* → *Linear Regression*.

5. In the time series chart, add a Triple Exponential Smoothing forecast.

a) In the time series chart, choose  *More Actions*.

b) Choose *Add* → *Forecast* → *Advanced Options* → *Triple Exponential Smoothing*.

6. Hover on a data point so that you can see the Confidence Interval.



Result

7. Save the story from the ribbon or press **Ctrl+S**. Return to the Home page.

Result

You have completed this exercise.

Run Smart Discovery and use Smart Insights

Business Example

In this exercise, run a smart discovery within SAP Analytics Cloud. You will develop an understanding of the purpose of various pages that are created by smart discovery.

Based on the dataset in an existing story, you want to see what factors influence the salary you pay your employees. As you are not familiar with HR data, you want to use smart discovery in SAP Analytics Cloud which automatically creates a story for you.

Task Flow

- Copy an existing story.
- Run a smart discovery with acquired data.
- Explain the differences between the overview, key influencers, unexpected values, and simulation page.
- Use Smart Insights to gain intrinsic information about key contributors.

Task 1: Log on to SAP Analytics Cloud


1. Log on to SAP Analytics Cloud. Go to the next task if you are already logged on and you have created the course files (step 2).
 - User: **A##** or **B##**.
is your 2-digit group number, and the letter is what your instructor assigned to you.
 - Password: **We1come1**

Task 2: Copy an Existing Story

1. Copy the *U00S_HR_Employee* story as follows:

Name	U##S_HR_SmartDiscovery
Description	U## Employee Smart Discovery

Task 3: Run Smart Discovery

1. On the upper left, choose the *My Files* hyperlink.
2. Open the *U##S_HR_SmartDiscovery* story.
3. Switch to *Edit* mode. If prompted to use optimized view mode, choose *No Thanks*.
4. Run Smart Discovery from the More... menu (or use the  icon in the ribbon). If you see a *Welcome!* dialog, choose *Got it*.

Result

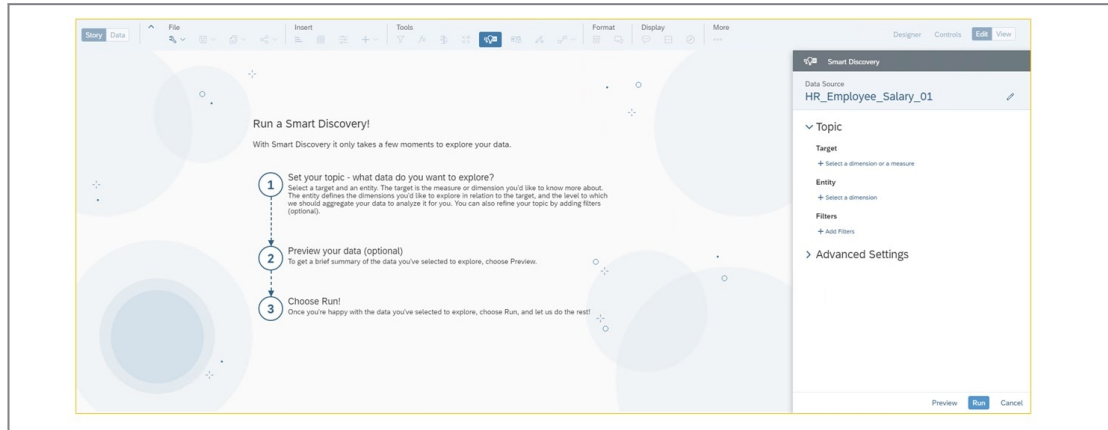


Figure 8: Smart Discovery Start Screen

5. In the Smart Discovery panel, make the following selections:

Field	Value
Target	Annual Salary
Entity	Employee ID
Advanced Settings:	
Version	Actual
Included Columns:	All Measures
	All Dimensions

6. Choose *Preview*.

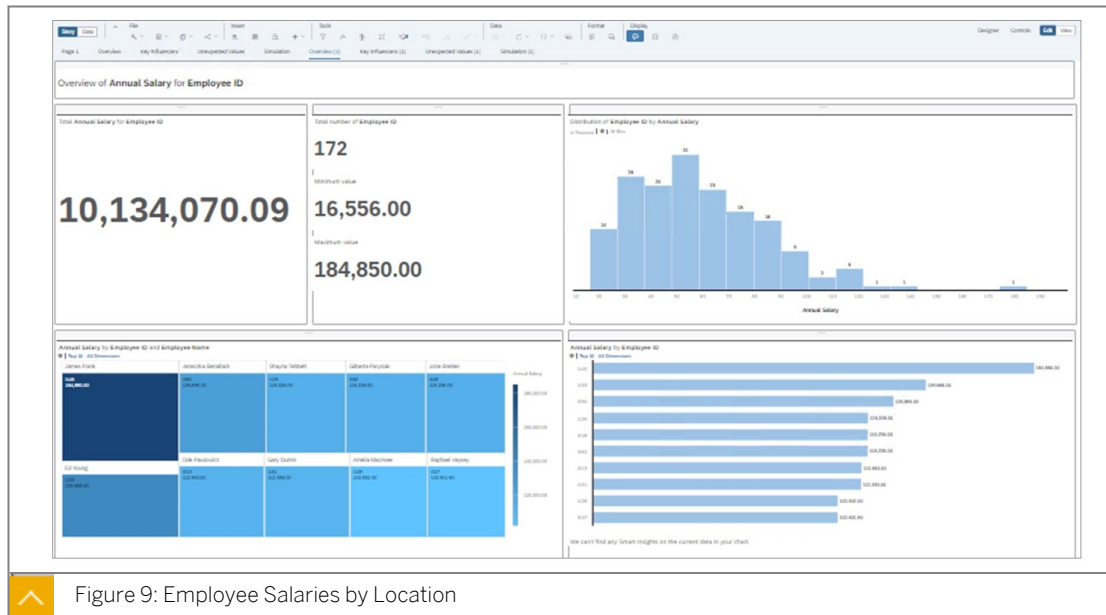
Result

The preview displays an explanation of how Smart Discovery works and some sample values.

7. Choose *Run*.

Result

The story opens with several pages, such as *Overview* and *Key Influencers*. Your results may vary compared to the following image.



8. Configure the *Annual Salary by Employee ID* bar chart to display office location.
 - a. On the lower right, click on the *Annual Salary by Employee ID* chart widget.
 - b. Use the *Designer* button to access the *Builder* pane.
 - c. The Comparison Chart type should be Bar/Column.
 - d. Set the measures and dimensions as follows:
 - Annual Salary
 - Dimensions = **Office Location** (remove *Employee ID*)
 - Color = Annual Salary
9. Set the Drill for the chart to Level 4.
10. Run smart insights on New York City.

Result

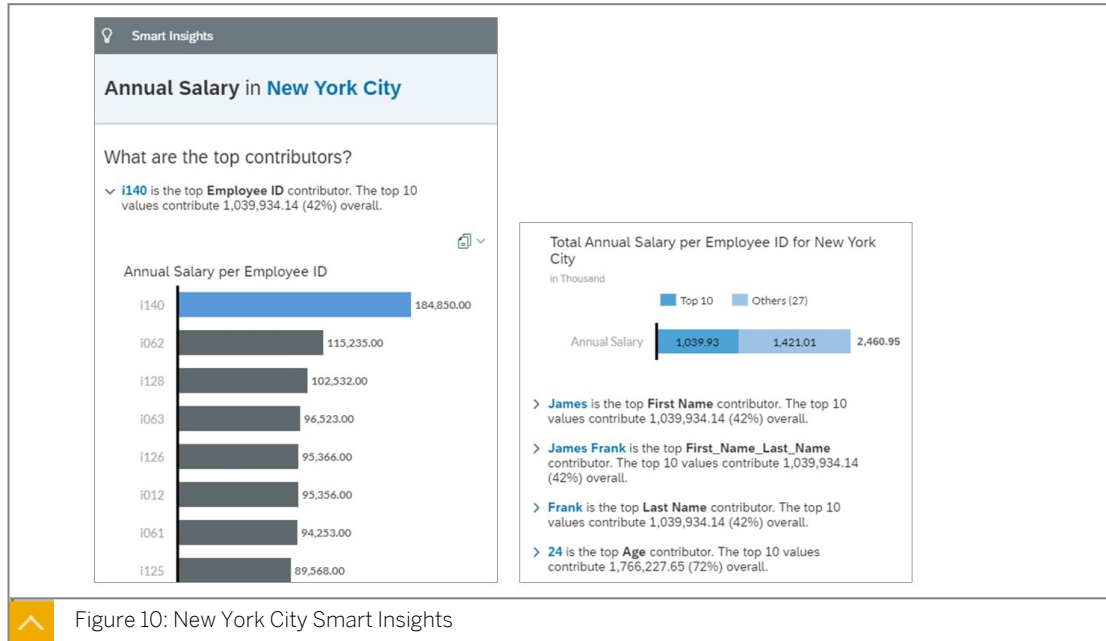


Figure 10: New York City Smart Insights

Smart insights lets you gain more intrinsic information about a data point in your visualization. When you select a data point in your visualization and choose Smart Insights, a side panel appears with smart textual and visual insights on that particular data point.

11. Scroll down in the *Smart Insights* pane and expand the *24 is the top Age contributor*.

Result

A chart with Annual Salary per Age for Actual is displayed.

12. Go to the *Key Influencers* page.

Result

Several dimensions are listed by level of influence. Position has a moderate influence on annual salary. The left panel contains a text area called *About this Smart Discovery*. Lower in the page, there are two lists of key influencers to pick from: *Select a key influencer from List A to see how it has an impact on Annual Salary for Employee ID* and *Select a different key influencer from List B to see how the relationship between it and Position has an impact on Annual Salary for Employee ID*.

13. In list A, which employment type is the highest?

Result

Full time has the highest impact.

14. On the *Key Influencers* page, check the distribution of annual salary by position. It is evident that the company is spending significantly more on the (VP) position. Explore what factors contribute to this.

15. Continuing in the *Key Influencers* page, investigate how the department impacts annual salary.

Result

It is evident that on average the Sales employees are paid more than any other department.


- Go to the *Unexpected Values* page. Which combination had the highest percentage difference?

 **Note:**
Your values may vary.

Unexpected values in Annual Salary for Age, Department, Employment Type, and 6 others

We found 7 Age, Department, Employment Type, and 6 others which were unexpected.

	Annual Sala... Actual	Annual Sala... Expected	Annual Salary Difference	Annual Salary % Difference	Position	Office Location	Employment Type	Department	Age
1	184,850.00	96,353.46	88,496.54	92 %	VP	New York City	Full Time	Sales Managers	48
2	139,568.00	58,866.53	80,701.47	137 %	Associate	Chicago	Full Time	Sales Managers	35
3	112,353.00	65,554.95	46,798.05	71 %	Associate	Seattle	Full Time	Sales Managers	32
4	125,895.00	84,156.72	41,738.28	50 %	VP	Chicago	Part Time	Engineering	20
5	61,235.00	29,861.34	31,373.66	105 %	Specialist	Toronto	Contract/Interim	Support	30
6	50,698.27	86,156.11	-35,457.84	-41 %	Manager	Chicago	Contract/Interim	Project Manag...	38
7	20,875.00	61,051.10	-40,176.10	-66 %	Associate	New York City	Full Time	Sales Managers	50

 Figure 11: Smart Discovery


- Choose the *Simulation* tab. Choose *Got it* if prompted. What is the annual salary for a Manager vs. a Specialist?

Result

Page 1 Overview Key Influencers Unexpected Values Simulation

Change the influencer values below, and choose 'Simulate' to see the impact on Annual Salary for Age, Currency, Department, and 6 others:

Influencers	Impact
Position <input type="text" value="Manager"/>	<input checked="" type="radio"/> Positive
Office Location <input type="text" value="New York City"/>	<input type="radio"/> Neutral
Employment Type <input type="text" value="Full Time"/>	<input checked="" type="radio"/> Weakly Positive
Age <input type="text" value="30"/>	<input type="radio"/> Neutral
Department <input type="text" value="Sales"/>	<input type="radio"/> Neutral

 Figure 12: Smart Discovery

If the position is set to Specialist, the impact is negative since the annual salary is lower.

- Save the story and return to the *Home* page.

Result

You have completed this exercise.

Run Smart Discovery and use Smart Insights

Business Example

In this exercise, run a smart discovery within SAP Analytics Cloud. You will develop an understanding of the purpose of various pages that are created by smart discovery.

Based on the dataset in an existing story, you want to see what factors influence the salary you pay your employees. As you are not familiar with HR data, you want to use smart discovery in SAP Analytics Cloud which automatically creates a story for you.

Task Flow

- Copy an existing story.
- Run a smart discovery with acquired data.
- Explain the differences between the overview, key influencers, unexpected values, and simulation page.
- Use Smart Insights to gain intrinsic information about key contributors.


Task 1: Log on to SAP Analytics Cloud

1. Log on to SAP Analytics Cloud. Go to the next task if you are already logged on and you have created the course files (step 2).
 - User: **A##** or **B##**.
is your 2-digit group number, and the letter is what your instructor assigned to you.
 - Password: **We1come1**
 - a) From your training remote desktop, launch Google Chrome.
 - b) Enter the URL (provided by your instructor) for the SAP Analytics Cloud tenant you will use in class.
 - c) Your instructor has assigned you to a group, either A or B, and also given you a 2-digit group number. Log on to SAP Analytics Cloud using the credentials above.

Task 2: Copy an Existing Story

1. Copy the *U00S_HR_Employee* story as follows:


Name	U##S_HR_SmartDiscovery
Description	U## Employee Smart Discovery

- a) Navigate to *Files* → *Public* → *SACE11_34* → *Content*.
- b) Select the  *U00S_HR_Employee* story.

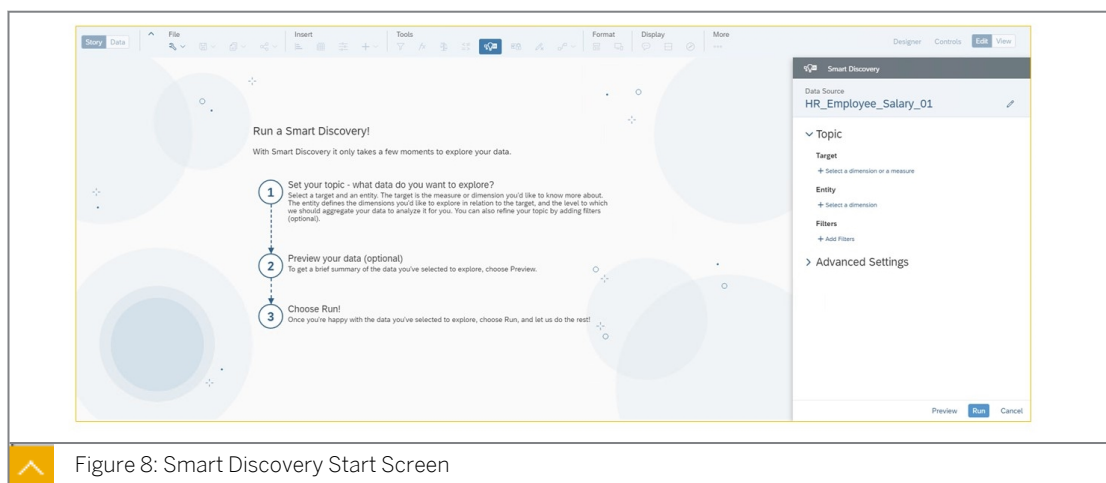
c) Choose  *Copy*.

d) Choose *My Files* from the upper left corner of the dialog box and enter the information as shown in the preceding table.

Task 3: Run Smart Discovery

1. On the upper left, choose the *My Files* hyperlink.
2. Open the *U##S_HR_SmartDiscovery* story.
3. Switch to *Edit* mode. If prompted to use optimized view mode, choose *No Thanks*.
4. Run Smart Discovery from the More... menu (or use the  icon in the ribbon). If you see a *Welcome!* dialog, choose *Got it*.

Result



5. In the Smart Discovery panel, make the following selections:

Field	Value
Target	Annual Salary
Entity	Employee ID
Advanced Settings:	
Version	Actual
Included Columns:	All Measures
	All Dimensions

6. Choose *Preview*.

Result

The preview displays an explanation of how Smart Discovery works and some sample values.

7. Choose *Run*.

Result

The story opens with several pages, such as *Overview* and *Key Influencers*. Your results may vary compared to the following image.

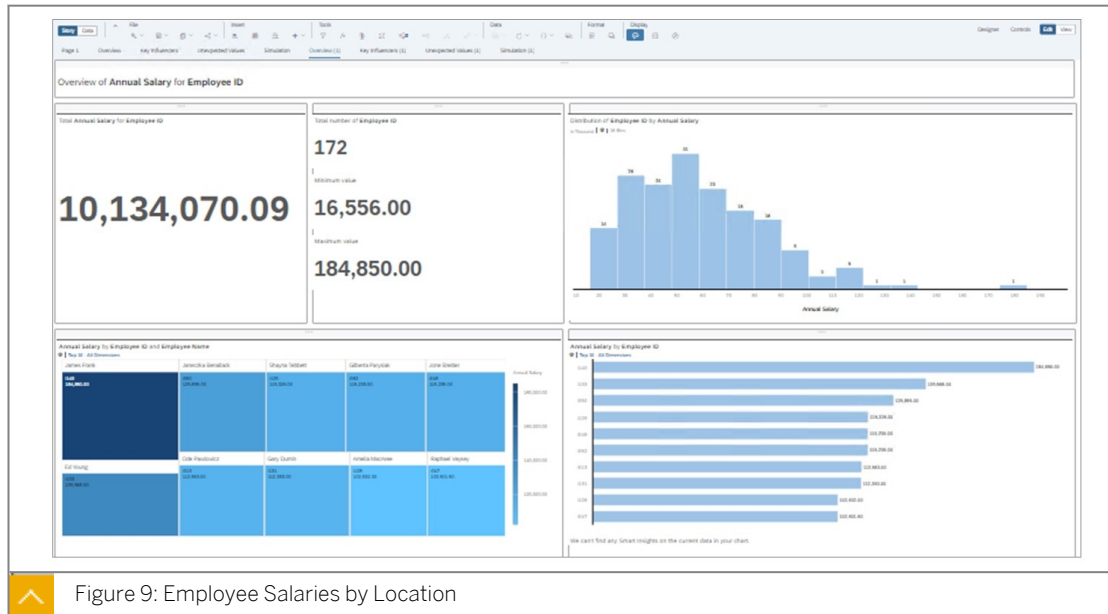



Figure 9: Employee Salaries by Location

8. Configure the *Annual Salary by Employee ID* bar chart to display office location.
 - a. On the lower right, click on the *Annual Salary by Employee ID* chart widget.
 - b. Use the *Designer* button to access the *Builder* pane.
 - c. The Comparison Chart type should be Bar/Column.
 - d. Set the measures and dimensions as follows:
 - Annual Salary
 - Dimensions = **Office Location** (remove *Employee ID*)
 - Color = Annual Salary
9. Set the Drill for the chart to Level 4.
 - a) Click the  *Set Drill* icon in the chart widget, and choose *Level 4*.
10. Run smart insights on New York City.
 - a) Right-click the *New York City* bar and select *Smart Insights*.
 - b) Expand the first entry to see *Annual Salary per Employee ID for Actual*.

Result

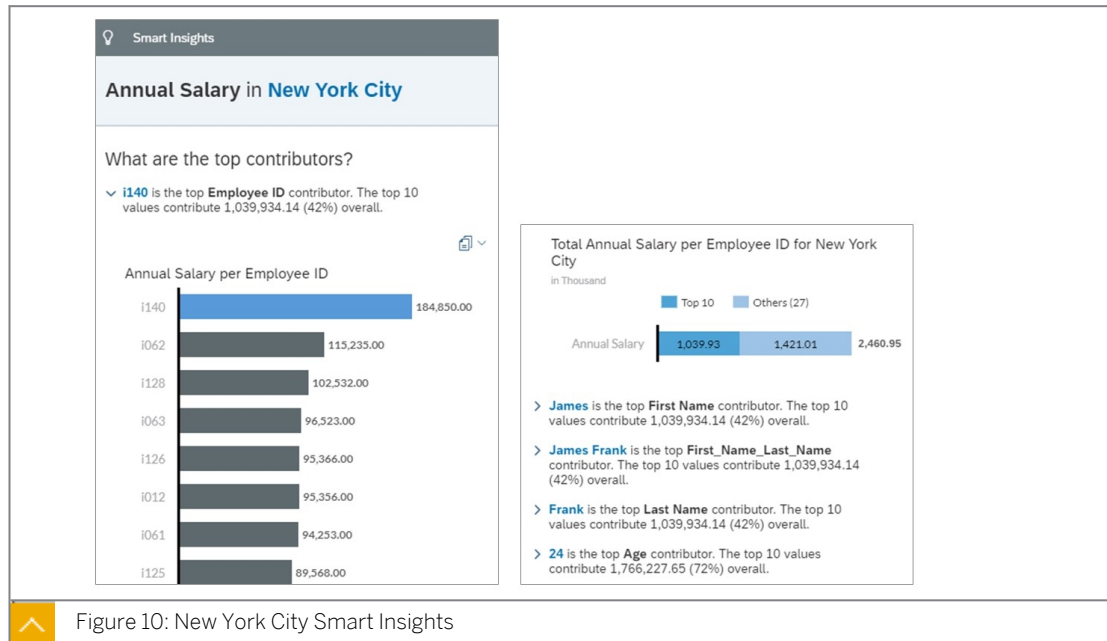


Figure 10: New York City Smart Insights

Smart insights lets you gain more intrinsic information about a data point in your visualization. When you select a data point in your visualization and choose Smart Insights, a side panel appears with smart textual and visual insights on that particular data point.

11. Scroll down in the *Smart Insights* pane and expand the *24 is the top Age contributor*.

Result

A chart with Annual Salary per Age for Actual is displayed.

12. Go to the *Key Influencers* page.

Result

Several dimensions are listed by level of influence. Position has a moderate influence on annual salary. The left panel contains a text area called *About this Smart Discovery*. Lower in the page, there are two lists of key influencers to pick from: *Select a key influencer from List A to see how it has an impact on Annual Salary for Employee ID* and *Select a different key influencer from List B to see how the relationship between it and Position has an impact on Annual Salary for Employee ID*.

13. In list A, which employment type is the highest?

a) Under *List A*, select *Employment Type*.

Result

Full time has the highest impact.

14. On the *Key Influencers* page, check the distribution of annual salary by position. It is evident that the company is spending significantly more on the (VP) position. Explore what factors contribute to this.

a) Choose the *Position* radio button under *List A*. The chart on the right hand changes accordingly.


b) Right-click *VP* and choose *Smart Insights*. Expand the entry under *How is this calculated?*

15. Continuing in the *Key Influencers* page, investigate how the department impacts annual salary.
 - a) Choose the *Department* radio button under *List A*.
 - b) The chart on the right hand changes accordingly.

Result

It is evident that on average the Sales employees are paid more than any other department.

16. Go to the *Unexpected Values* page. Which combination had the highest percentage difference?



Note:
Your values may vary.

Unexpected values in Annual Salary for Age, Department, Employment Type, and 6 others									
We found 7 Age, Department, Employment Type, and 6 others which were unexpected.									
	Annual Sala... Actual	Annual Sala... Expected	Annual Salary Difference	Annual Salary % Difference	Position	Office Location	Employment Type	Department	Age
1	184,850.00	96,353.46	88,496.54	92 %	VP	New York City	Full Time	Sales Managers	48
2	139,568.00	58,866.53	80,701.47	137 %	Associate	Chicago	Full Time	Sales Managers	35
3	112,353.00	65,554.95	46,798.05	71 %	Associate	Seattle	Full Time	Sales Managers	32
4	125,895.00	84,156.72	41,738.28	50 %	VP	Chicago	Part Time	Engineering	20
5	61,235.00	29,861.34	31,373.66	105 %	Specialist	Toronto	Contract/Interim	Support	30
6	50,698.27	86,156.11	-35,457.84	-41 %	Manager	Chicago	Contract/Interim	Project Manag...	38
7	20,875.00	61,051.10	-40,176.10	-66 %	Associate	New York City	Full Time	Sales Managers	50

Figure 11: Smart Discovery

17. Choose the *Simulation* tab. Choose *Got it* if prompted. What is the annual salary for a Manager vs. a Specialist?
 - a) In the *Impact* column, make your selections as you see in the *Smart Discovery* image.
 - b) Choose *Simulate*.

Result

Page 1 Overview Key Influencers Unexpected Values **Simulation**

Change the influencer values below, and choose 'Simulate' to see the impact on **Annual Salary for Age, Currency, Department, and 6 others:**

Influencers	Impact
Position: <input type="text" value="Manager"/>	<input checked="" type="radio"/> Positive
Office Location: <input type="text" value="New York City"/>	<input type="radio"/> Neutral
Employment Type: <input type="text" value="Full Time"/>	<input checked="" type="radio"/> Weakly Positive
Age: <input type="text" value="30"/>	<input type="radio"/> Neutral
Department: <input type="text" value="Sales"/>	<input type="radio"/> Neutral

Figure 12: Smart Discovery

If the position is set to Specialist, the impact is negative since the annual salary is lower.

18. Save the story and return to the *Home* page.

Result

You have completed this exercise.

Provide feedback using discussion and comments

You are part of an international team responsible for analyzing the information in the *U##S_First_Story* story. You need to communicate with your team members regarding the story and information in it, and you decide to use SAC's discussion and comments functionality.

Task Flow


In this exercise, you will perform the following tasks:

- Open an existing story
- Start a discussion with your team
- Add a comment on a widget in the story

1. Open your *U##S_First_Story*.



Note:

You should not be prompted to log on but if you are, try to  reload (directly above the SAP logo) the SAP Analytics Cloud browser. This story accesses data from live SAP HANA views and since single sign-on is enabled, you should not be prompted to log on.

2. Start a new discussion with your team. Include a link to the *U##S_First_Story* story and comment to check out the *Finance* page.
3. Go back to the Home screen.
4. Use the *Collaboration* icon to see if anyone has started a discussion with you.
5. Insert a comment in the *# of Orders* KPI. Use a bold font.
6. Return to the Home screen.

Provide feedback using discussion and comments

You are part of an international team responsible for analyzing the information in the *U##S_First_Story* story. You need to communicate with your team members regarding the story and information in it, and you decide to use SAC's discussion and comments functionality.

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In this exercise, you will perform the following tasks:


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1. Open your *U##S_First_Story*.



Note:

You should not be prompted to log on but if you are, try to  reload (directly above the SAP logo) the SAP Analytics Cloud browser. This story accesses data from live SAP HANA views and since single sign-on is enabled, you should not be prompted to log on.

2. Start a new discussion with your team. Include a link to the *U##S_First_Story* story and comment to check out the *Finance* page.
- a) On the upper right, choose  *Collaboration* to initiate a new discussion.
 - b) Choose the + icon to invite other users or teams to this specific discussion. In your case, use either *Team A* or *Team B*, based on which Team you are using for this course.
 - c) In the *Discussion* pane, scroll down to the bottom and link your story *U##S_First_Story* to this specific discussion using the + icon.
 - d) Enter a comments, such as **Check out the Finance page** and send it.
3. Go back to the Home screen.
4. Use the *Collaboration* icon to see if anyone has started a discussion with you.
5. Insert a comment in the *# of Orders* KPI. Use a bold font.

- a) On the upper left, choose the point chart called *# of Orders*. Choose the  *More Actions* icon and choose *Add → Comment*. Enter a comment of your choice. Change to a bold font. Choose *Add Comment*.
 - b) Close the *Comment* box.
6. Return to the Home screen.

Build a calendar task

Business Example

You want to use the SAP Analytics Cloud Calendar to collaborate with a colleague.

Task Flow

In this exercise you will:

- Copy, share, and modify an existing story.
- Create a Composite Task in the Calendar that defines PUSERA/B as the Reviewer.
- Send a message to your reviewer indicating you removed dimensions from the table.
- As PUSERA/B, review and approve the story.
- As A/B##, view your calendar task to see that it is completed.



Note:

In this exercise, when a value or object name includes ##, replace ## with the number that your instructor assigned to you.

Task 1: Logon to SAP Analytics Cloud

1. Log on to SAP Analytics Cloud.

Username: **A##** or **B##**, where ## is your 2-digit group number, and the letter is what your instructor assigned to you.

Password: **welcome1**

Task 2: Copy, Share, and Modify the Story

1. Copy the *P00S_HR_Employee* story in the SACE11_34 content folder.
2. Copy the *P00S_HR_Employee* story as follows:

Field	Value
Name	U##S_Cal_Scen
Description	U## Calendar Scenario

3. Share your *U##S_Cal_Scen* story with PUSERA/B with Full Control.
4. Open your *U##S_Cal_Scen* story in Edit mode, remove all dimensions from the existing table except *Office Location* and *Position*.
5. Save the story.

Task 3: Create a Composite Task in the Calendar with a Reviewer.

1. Access the Calendar.
2. Switch to the list view and turn off the Gantt chart.
3. Add a Composite Task named *U##T_NewStory* that starts 5 minutes from the current date and time.
4. Configure the Task to add to the Task the *U##S_Cal_Scen* story as a Work File and name your User as the *Assignee* and PUSERA/B as the *Reviewer*.
5. To give the Reviewer more time to review the story, continue configuring the Task to change the *Distribution* of the task to 25% for the Assignee and 75% for the Reviewer.

Result

Here is an example for an *A##* user:

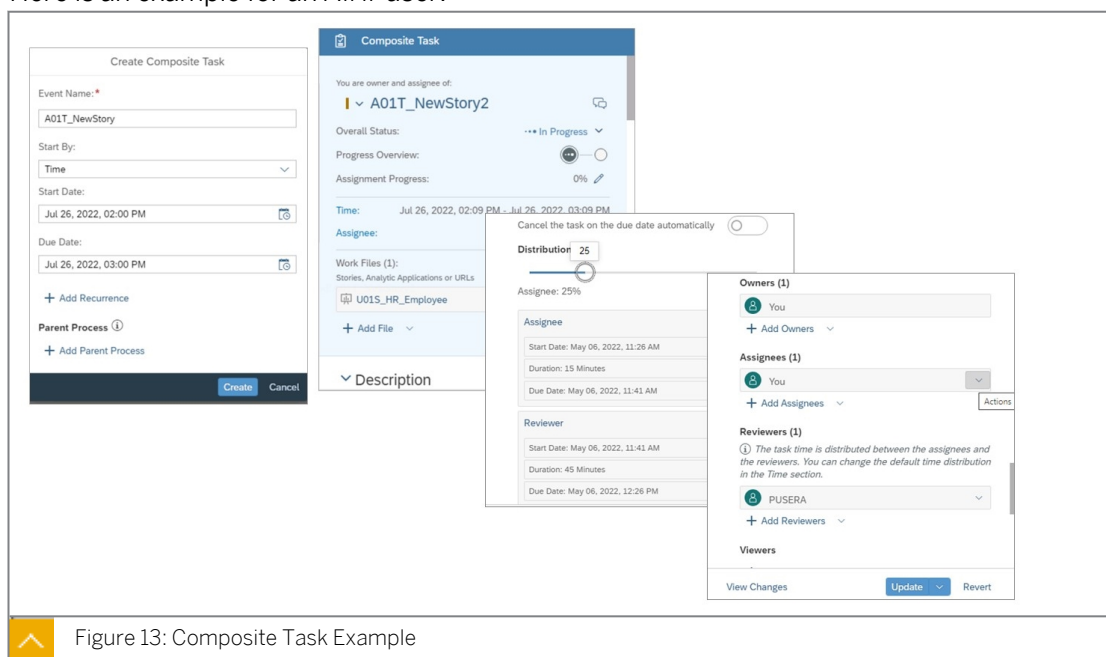


Figure 13: Composite Task Example

6. At the start time of the Task, reload the SAP Analytics Cloud page.

Result

The *Overall Status* changes to *In Progress*.

7. As the *Assignee* of the Task, add a comment to the *Reviewer* to explain that you removed dimensions from the rows of the table and submit this change to the task.

Result



Note:

If the Submit button is not active, check the start date/time for the task. Make sure it is set for the current day and time.

Task 4: As PUSERA/B, Review and Approve the Story

You are now acting as the *Reviewer* of the information submitted by the *Assignee*. You will log on as the PUSERA or PUSERB user in a Chrome Incognito session.

1. In a Chrome incognito session, log on as the reviewing user:

User	Password
If you are using the A Team: PUSERA If you are using the B Team: PUSERB	Welcome1

Result

You now have two Chrome sessions, but you see only the Incognito session.

2. View your PUSERA/B Notifications and open the story you are to review.

Result

The story opens. Under the main task bar are options to *Approve*, *Reject*, and *Decline* as well as a button to view the Details of the task.

3. View the story and then respond that the story is fine.
4. Approve the story.

Result

The *Discussions* and *Composite Task* panes indicate that the Task has been accomplished.

5. Close the Incognito browser tab.

Task 5: As the A/B## User View Your Calendar Task to See That It Is Completed.

1. In the *Calendar* for your A/B## user, view the status of the task in the *List* view.

Result

The *Status* column indicates *Accomplished* and the *Progress* column shows that your U##T_NewStory task is 100% complete.

2. Go to the Home page.

Result

You have completed this exercise.

Build a calendar task

Business Example

You want to use the SAP Analytics Cloud Calendar to collaborate with a colleague.

Task Flow

In this exercise you will:

- Copy, share, and modify an existing story.
- Create a Composite Task in the Calendar that defines PUSERA/B as the Reviewer.
- Send a message to your reviewer indicating you removed dimensions from the table.
- As PUSERA/B, review and approve the story.
- As A/B##, view your calendar task to see that it is completed.



Note:

In this exercise, when a value or object name includes ##, replace ## with the number that your instructor assigned to you.

Task 1: Logon to SAP Analytics Cloud

1. Log on to SAP Analytics Cloud.

Username: **A##** or **B##**, where ## is your 2-digit group number, and the letter is what your instructor assigned to you.






Password: **welcome1**

- a) From your training remote desktop, launch Google Chrome.
- b) Type the URL (provided by your instructor) for the SAP Analytics Cloud Tenant you will use in class.
- c) Your instructor has assigned you to a group, either A or B, and also given you a 2-digit group number. Log on to SAP Analytics Cloud using the provided credentials.


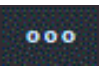
Task 2: Copy, Share, and Modify the Story


1. Copy the *P00S_HR_Employee* story in the *SACE11_34* content folder.
 - a) On the upper left, go to Files.
 - b) Go to *Public* → *SACE11_34* → *Content*.
2. Copy the *P00S_HR_Employee* story as follows:

Field	Value
Name	U##S_Cal_Scen
Description	U## Calendar Scenario

- a) Select the  POOS_HR_Employee story.
 - b) Near the top of the page, choose *Copy To* .
 - c) Choose *My Files* from the upper left corner of the dialog box and enter the information as shown in the preceding table.
 - d) Choose *OK*.
3. Share your U##S_Cal_Scen story with PUSERA/B with Full Control.
 - a) Open the  Navigation Bar if needed. On the top left, choose *Files*.
 - b) Select your  U##S_Cal_Scen story.
 - c) To use the share function, choose the  icon .
 - d) Select *Share*.
 - e) In the pop-up window, enter either PUSERA or PUSERB (depending on what group your class is using).
 - f) Choose *OK*.
 - g) Change the Access to *Full Control*.
 - h) Choose *Share* and then choose *Close*.
 4. Open your U##S_Cal_Scen story in Edit mode, remove all dimensions from the existing table except *Office Location* and *Position*.
 - a) From *My Files*, click the U##S_Cal_Scen story to open it.
 - b) Select the table.
 - c) Choose *Designer*.
 - d) In the *Builder* pane on the right, remove all dimensions from the *Rows* except *Office Location* and *Position*.
 5. Save the story.

Task 3: Create a Composite Task in the Calendar with a Reviewer.

1. Access the Calendar.
 - a) Open the  Navigation Bar and choose *Calendar*. It may be located under the  ...More option.
 - b) If prompted, close the *Calendar Release Highlights* dialog.

2. Switch to the list view and turn off the Gantt chart.
 - a) On the upper left, go to the List view.
 - b) In the ribbon, choose  *Hide Gantt Char*.
3. Add a Composite Task named *U##T_NewStory* that starts 5 minutes from the current date and time.
 - a) In the Calendar toolbar at the top of the screen choose *+ Add → Composite Task*.
 - b) In the *Name* field, type **U##T_NewStory**.
 - c) Choose the calendar icon in the *Start Date* field, and change the *Minutes* to 5 minutes from the current time.
 - d) Choose *Create*.
4. Configure the Task to add to the Task the *U##S_Cal_Scen* story as a Work File and name your User as the *Assignee* and PUSERA/B as the *Reviewer*.
 - a) Near the top of the *Composite Task* pane, choose *+ Add File*.
 - b) Choose the *U##S_Cal_Scen* story and click *OK*.
 - c) Scroll to the *Assignees* section.
 - d) Click *+Add Assignees* and choose your User (either *A##* or *B##*).
 - e) Scroll to the *Reviewers* section.
 - f) Click *+ Add Reviewers* and choose either *PUSERA* or *PUSERB*, depending on your course Team, and click *OK*. **CAUTION:** Do not click the drop-down. Click directly on the words *Add Reviewers*.
5. To give the Reviewer more time to review the story, continue configuring the Task to change the *Distribution* of the task to 25% for the Assignee and 75% for the Reviewer.
 - a) Continuing in the *Composite Task* pane, scroll up to the *Distribution* section and move the slider so that the Assignee has 25% of the task and the Reviewer 75%.
 - b) At the bottom of the *Composite Task* pane, choose *Update*.
 - c) If possible, choose *Activate → OK*.

Result

Here is an example for an *A##* user:

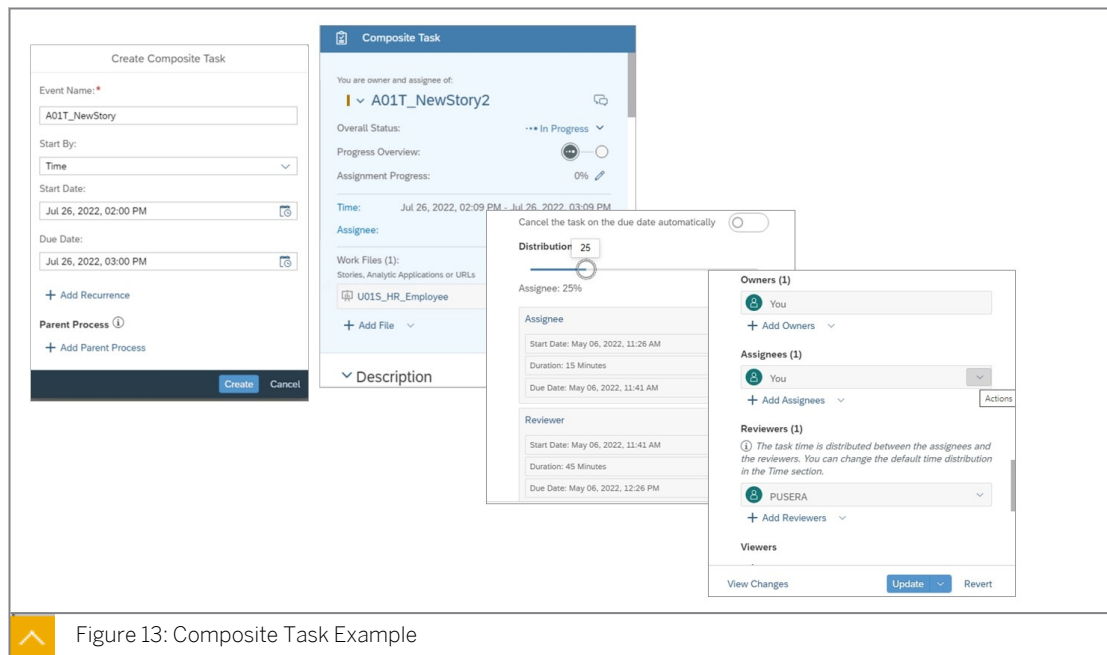




Figure 13: Composite Task Example

6. At the start time of the Task, reload the SAP Analytics Cloud page.
 - a) Below the *SAP Learning Class* logo, click the  *Reload this page* button for the SAP Analytics Cloud browser tab.

Result

The *Overall Status* changes to *In Progress*.

7. As the *Assignee* of the Task, add a comment to the *Reviewer* to explain that you removed dimensions from the rows of the table and submit this change to the task.
 - a) In the *Composite Task* pane, choose the  *Open Discussions* icon at the top of the pane, to the right of the Task title.
 - b) At the bottom of the *Discussions* pane, type **I removed dimensions from the table. Is this okay?** in the *Type a message ...* area and press *Enter*.
 - c) In the *Composite Task* pane on the lower right, choose *Submit* and choose *Submit* in the ? *Submit* dialog.

Result



Note:


If the *Submit* button is not active, check the start date/time for the task. Make sure it is set for the current day and time.

Task 4: As PUSERA/B, Review and Approve the Story

You are now acting as the *Reviewer* of the information submitted by the *Assignee*. You will log on as the PUSERA or PUSERB user in a Chrome Incognito session.

1. In a Chrome incognito session, log on as the reviewing user:


User	Password
If you are using the A Team: PUSERA If you are using the B Team: PUSERB	Welcome1

- a) Copy (Ctrl+C) the SAP Analytics Cloud tenant URL.
- b) On the upper right in the SAP Analytics Cloud Chrome browser, go to  *Customize* and choose *New Incognito Window*.
- c) Paste (Ctrl+V) the SAP Analytics Cloud tenant URL.
- d) Log on as instructed above.

Result

You now have two Chrome sessions, but you see only the Incognito session.


2. View your PUSERA/B Notifications and open the story you are to review.

- a) In the upper right, choose the  *Notification* icon.
- b) Select the *Your task U##T_NewStory is now open* notification.

Result

The story opens. Under the main task bar are options to *Approve*, *Reject*, and *Decline* as well as a button to view the *Details* of the task.

3. View the story and then respond that the story is fine.

- a) Click the *Details* button.
- b) Choose the  *Open Discussions* icon.
- c) At the bottom of the *Discussions* pane, type **This story looks fine. Thanks!** in the *Type a message ...* area on the lower right and press *Enter*.

4. Approve the story.

- a) Choose the *Approve* button below the main task bar.
- b) Choose *Approve* in the *? Approve* dialog.


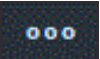
Result

The *Discussions* and *Composite Task* panes indicate that the Task has been accomplished.

5. Close the Incognito browser tab.

Task 5: As the A/B## User View Your Calendar Task to See That It Is Completed.

1. In the *Calendar* for your A/B## user, view the status of the task in the *List* view.

- a) Open the  *Navigation Bar* and choose *Calendar*. (It may be located under the  *More* option.)
- b) In the upper left corner of the *Calendar*, click *List*.

Result

The *Status* column indicates *Accomplished* and the *Progress* column shows that your U##T_NewStory task is 100% complete.

2. Go to the Home page.

Result

You have completed this exercise.