Hands-on Lab 5: Different Methods for Creating Dashboard Visualizations with Cognos Analytics

Estimated time needed: 45 minutes

Purpose of the Lab:

This lab is meticulously designed to enhance skills in utilizing IBM Cognos Analytics for creating sophisticated dashboard visualizations. The primary objectives include working with tabs, initiating new dashboards within these tabs, and mastering different methods for crafting dashboard visualizations. The lab guides users through automatic and manual techniques for visualization creation, as well as leveraging Cognos Analytics Assistant for this purpose. The focus is on practical application, enabling users to navigate through various features of Cognos Analytics, such as employing various visualization styles (like radial charts and packed bubble charts), and understanding how to effectively use data to create meaningful and interactive dashboards.

Benefits of Learning the Lab:

Participating in this lab provides invaluable benefits, particularly for those aspiring to excel in data analytics and visualization.You will gain hands-on experience in using IBM Cognos Analytics, a leading tool in the business intelligence domain. The skills acquired include creating diverse types of visualizations, understanding the application of different visualization methods, and effectively presenting data in an interactive and engaging manner. This knowledge is crucial for professionals in data analytics, marketing, business intelligence, and other fields that rely heavily on data visualization for decision-making and presentation purposes. The lab offers a robust foundation for those aiming to build or enhance their expertise in using advanced business intelligence software, thereby increasing their proficiency and employability in the rapidly evolving field of data analytics.

Software Used in this Lab

Like the videos in the course, for the hands-on labs we will be using IBM Cognos Analytics trial version (currently limited to 30 days) as this is available at no charge.

Dataset Used in this Lab

The dataset used in this lab comes from the VM designed to showcase IBM Cognos Analytics. This dataset is published by IBM. You can download the dataset file directly from here: CustomerLoyaltyProgram.csv

Objectives

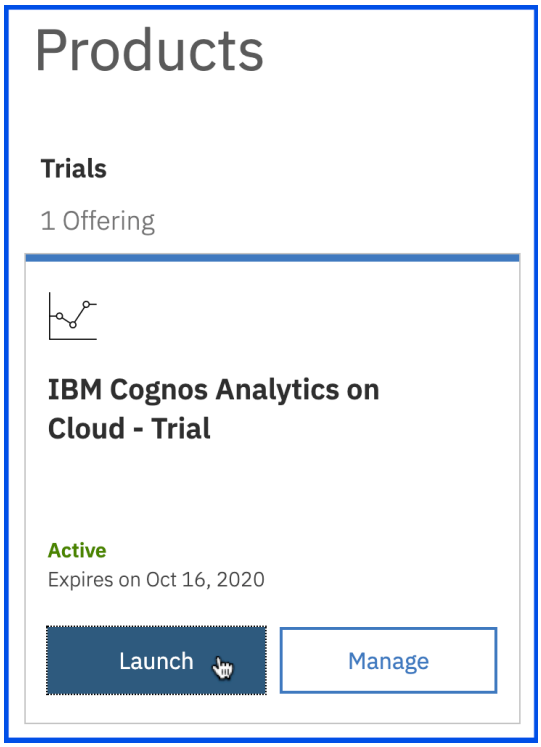
After completing this lab, you will be able to:

- Work with tabs.
- Start a new dashboard within tabs.
- Use an automatic method to create a visualization.
- Use Cognos Assistant to create a visualization.
- Use a manual method to create a visualization.

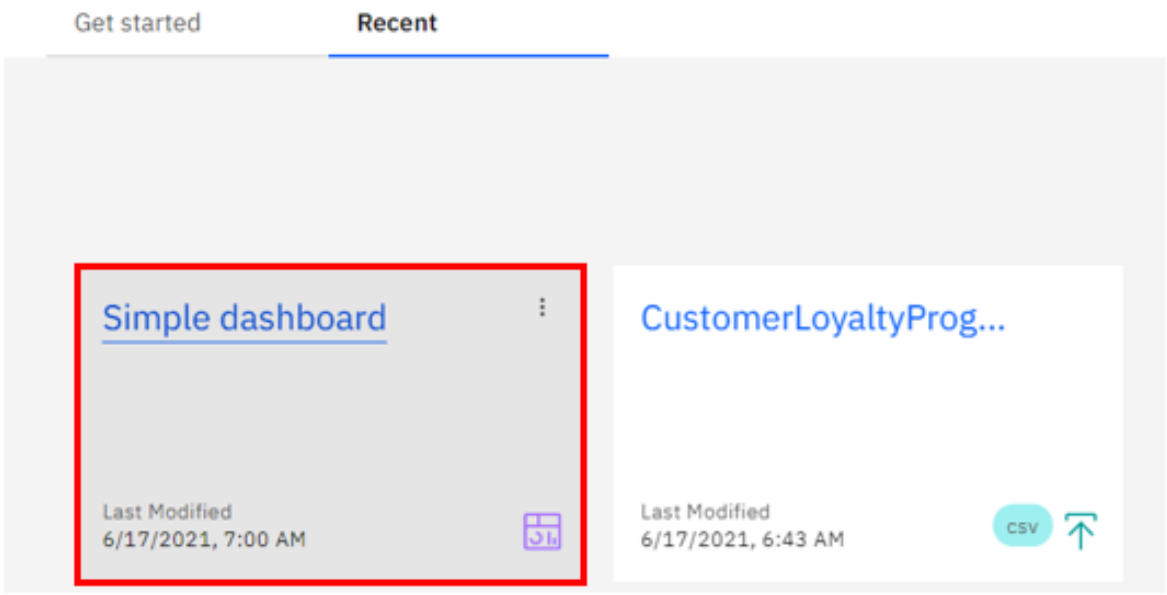
Exercise 1 : Work with Tabs and Start a New Dashboard within Tabs

In this exercise, you will learn how to work with tabs and start a new dashboard within tabs.

1. To sign in to the Cognos Analytics platform with your IBMid, go to myibm.ibm.com/dashboard/.
2. Enter your IBMid and password.
3. Scroll down and click **Launch**.

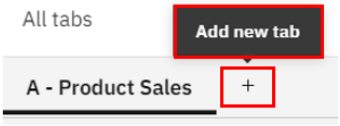


4. From the **Recent** section, click **Simple dashboard**.

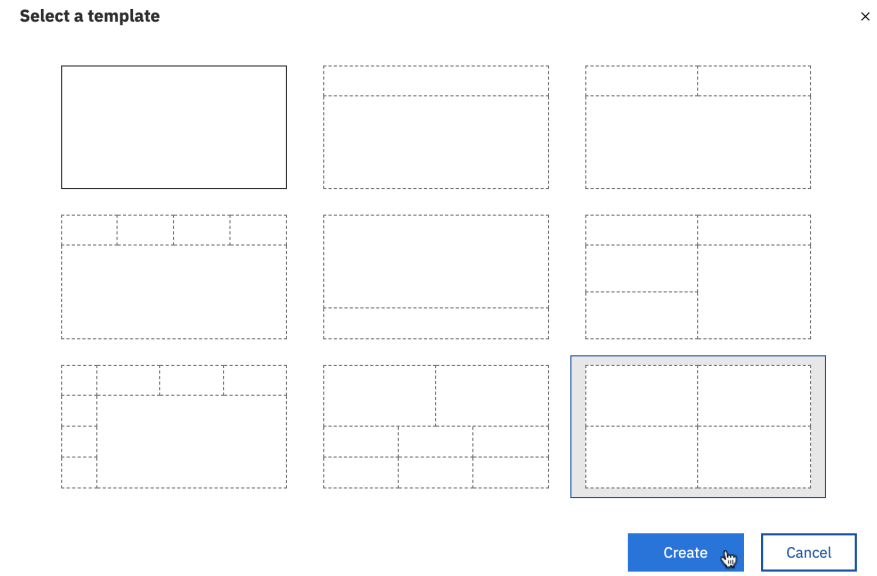


5. Click **Edit or preview** at the top left corner.

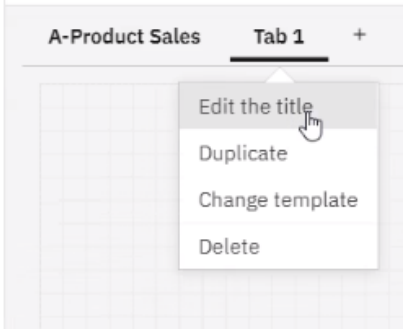
6. Click the **Add new tab** button to the right of the Dashboard A tab.



7. Select the **four-panel template with 2x2 configuration**. Click **Create**.



8. Click on the tab name **Tab 1** to bring up the Tab 1 on-demand toolbar. Select the **Edit**.

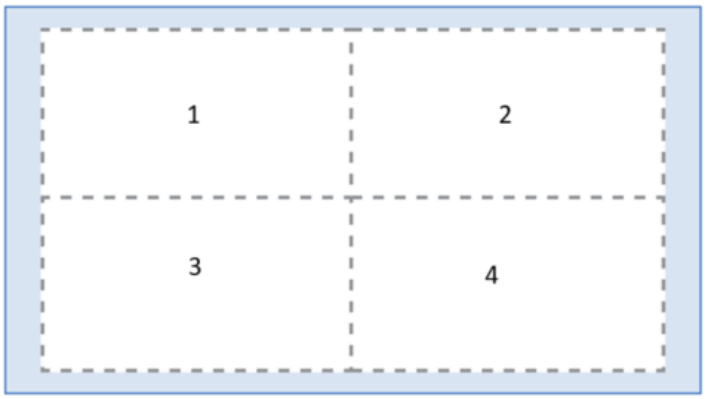


9. **Rename** the tab to “B - Customer”

Exercise 2 : Different Methods for Creating Dashboard Visualization

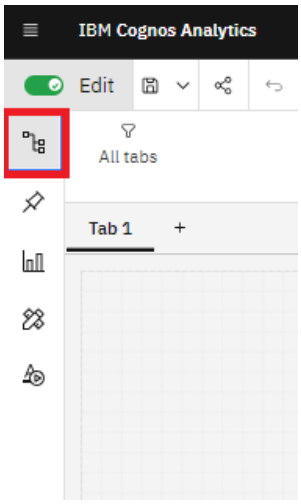
In this exercise, you will learn different methods for creating dashboard visualizations.

- As you build the dashboard, the location placement for Widgets in the dashboard template will be referenced using the following Panel numbers

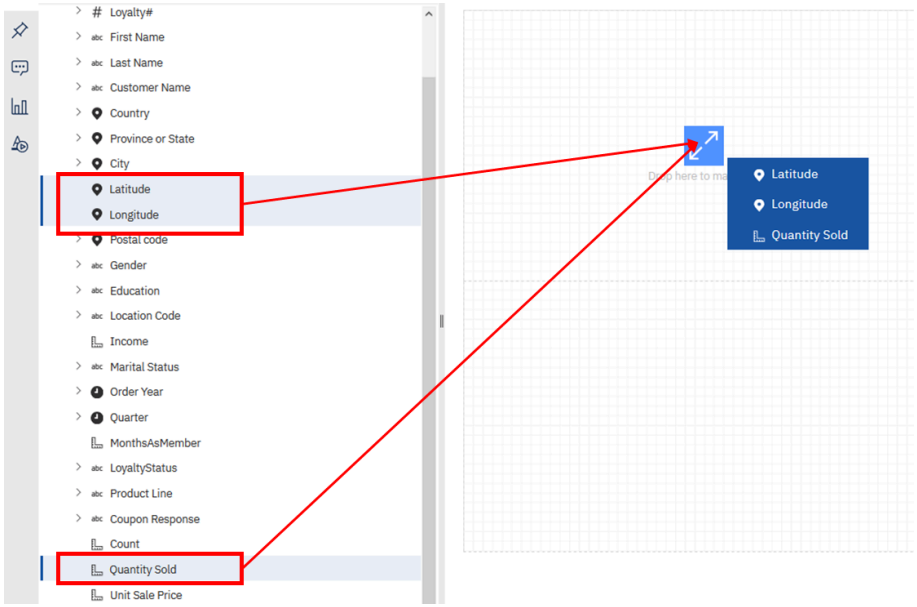


Task A : Using an Automatic Method to Create a Visualization for Panel 1

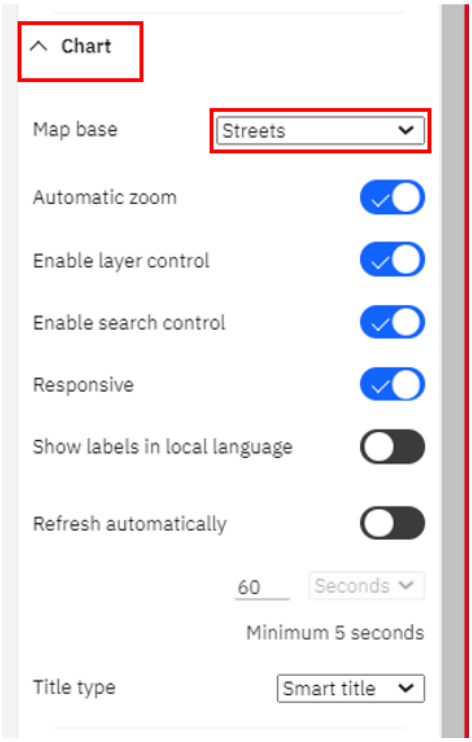
1. From the **Navigation** panel, select **Sources** to open the data source panel, if it is not already open. The **Data Source** panel displays the uploaded file **customerLoyaltyProgram.csv** as the Selected Source.



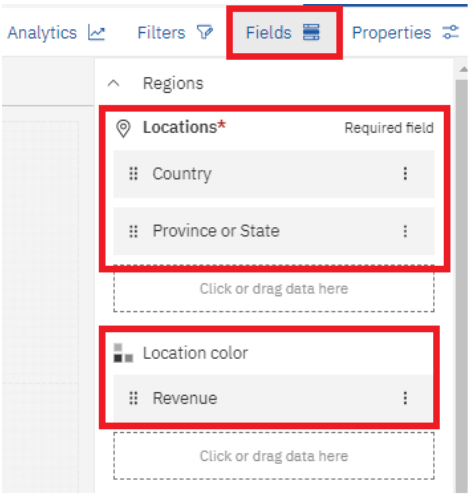
2. From the **Data Source** panel, expand CustomerLoyaltyProgram.csv, if needed.
3. From the **Data Source** panel, press **CTRL** and select **Latitude, Longitude, Quantity sold** and drag them to the center of **Panel 1**, releasing them once you see the **drop zone turn blue**.



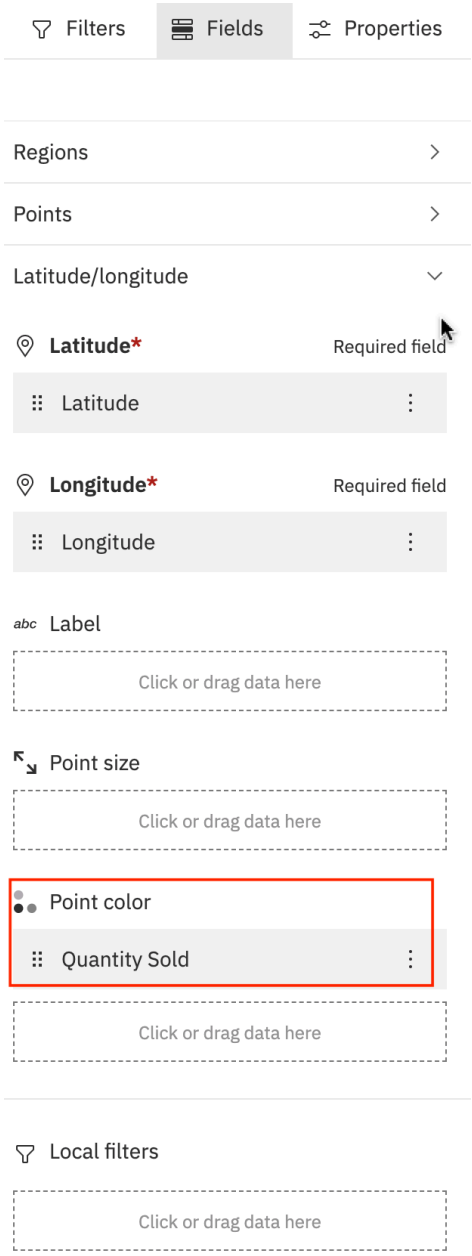
4. Click on the **Map chart in panel 1** to bring it into focus.
5. To change the map style, open the **Properties** panel and click the **down arrow next to Chart** to see the various options of maps available. Select **Streets** for **Style**.



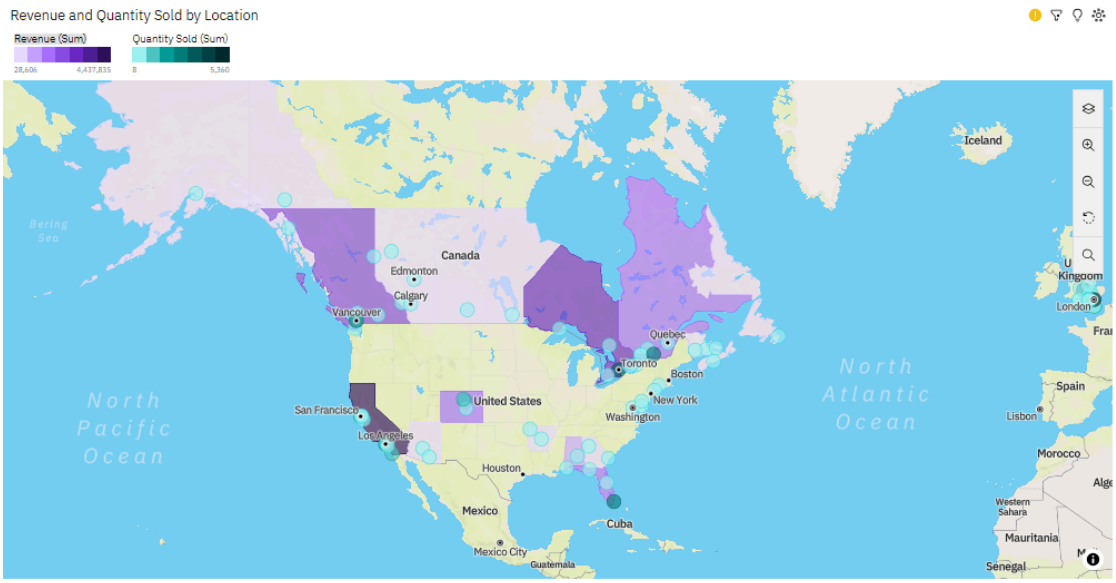
6. Open the **Fields** panel to view the data slots. From the **Sources** panel on the left of the screen, drag and drop the **Country, Province or State, Revenue** into the **Locations, Locations, Location color** data slots of **Regions** of the Fields panel respectively.



7. Make sure to drag and drop the **Quantity Sold** into **Point color** data slot of **Latitude/longitude** of the Fields panel if needed.

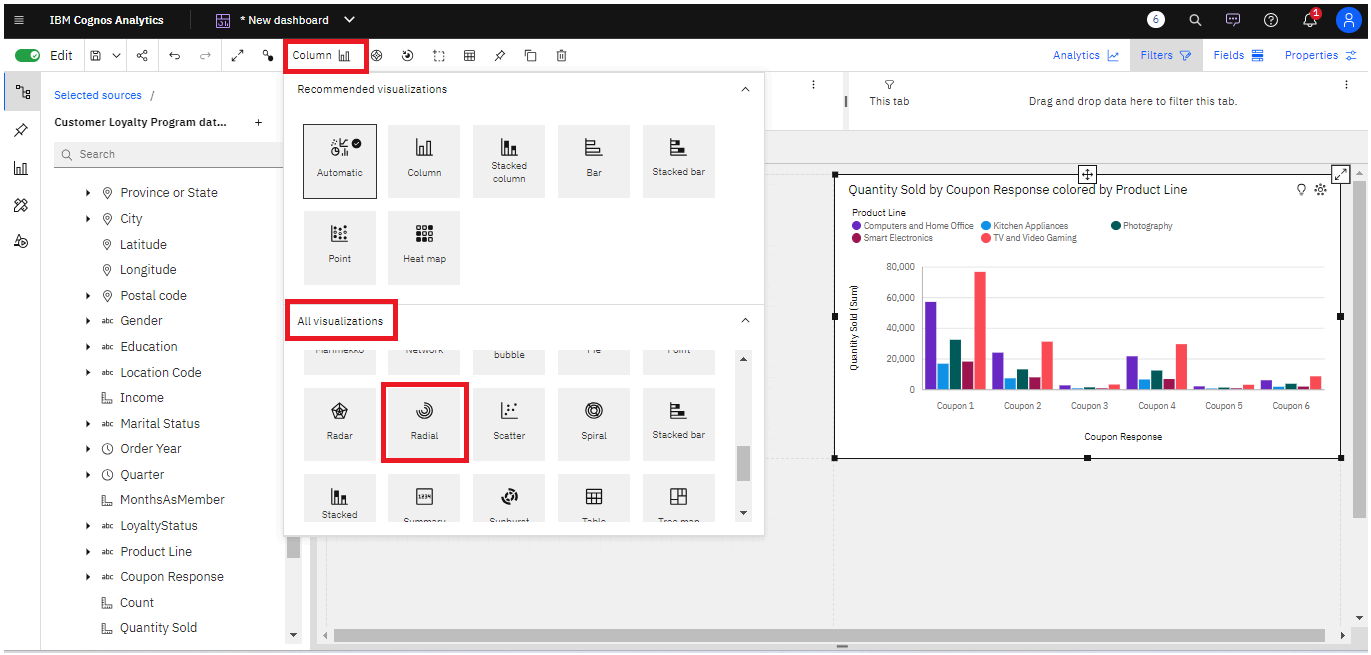


8. Click on the **Fields** button to close the fields panel.
9. Click on the **Map chart widget in Panel 1** to bring it into focus if needed. From the on-demand toolbar, click **Edit the title**. Enter the title “Revenue and Quantity Sold by Location” to the visualization.
10. Click the **Properties** button in the top-right corner to open the **Properties** panel and click on the **General** tab. Expand the **down arrow** next to **Appearance**. Click on **Border Color** to open the color options for borders. Apply a Black Border.
11. To save the current work of the dashboard, press **CTRL+S**.
12. Your **Panel 1 widget** should look like the one below:

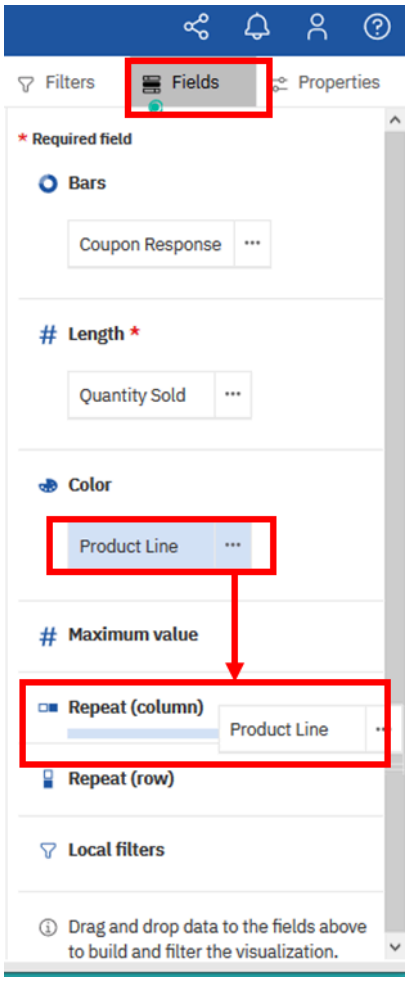


Task B : Using an Automatic Method to Create a Visualization for Panel 2

1. From the **Data Source** panel, press **CTRL** and select **Product Line, Coupon Response, Quantity sold** and drag them to the center of **Panel 2**, releasing them once you see the **drop zone turn blue**.
2. Click on the **Line chart in panel 2** to bring it into focus and render the **on-demand toolbar**.
3. Click the **Change Visualization** button in the on-demand toolbar. Use the **arrow** to expand **All Visualizations**. Scroll down and select **Radial**.



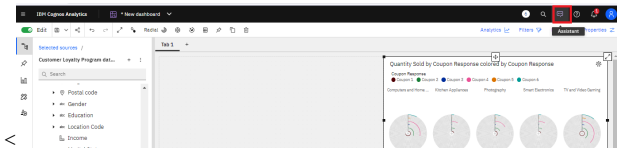
4. Click on the **Radial chart in Panel 2** to bring it into focus. Click on the **Fields** button on the **Dashboard toolbar** to open the Fields Panel.
5. Drag and drop **Product Line** to the **Repeat (column)** area.



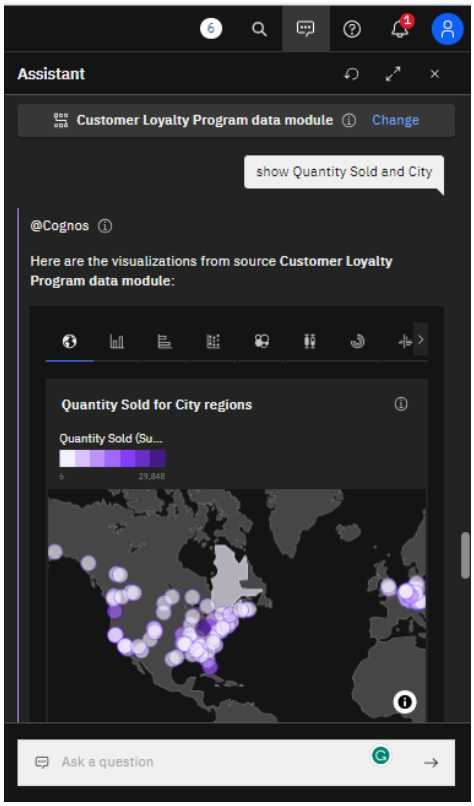
6. Next, move the **Coupon Response** to the **Color** field.
7. Click on the **Fields** button to close the fields panel.
8. Click on the **Radial chart widget in Panel 2** to bring it into focus. From the on-demand toolbar, click **Edit the title**. Enter the title “Marketing Response by Department” to the visualization.
9. Click on the **Radial chart in Panel 2** if needed to bring it into focus.
10. Open the **Properties** panel and click on the **General** tab. Expand the **down arrow** next to **Appearance**. Click on **Border Color** to open the color options for borders. Apply a Black Border.
11. To save the current work of the dashboard, press **CTRL+S**.
12. Your **Panel 2 widget** should look like the one below:

Task C : Using Cognos Assistant to Create a Visualization for Panel 3

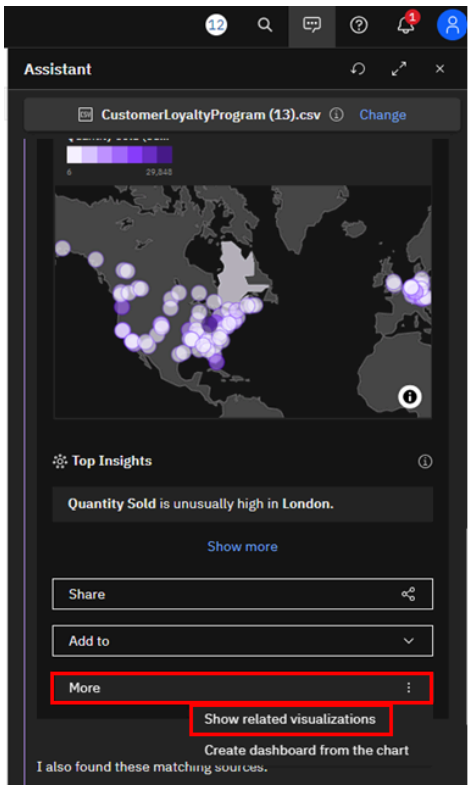
1. From the **Navigation** panel, select **Assistant** to open the **Cognos Assistant** panel.



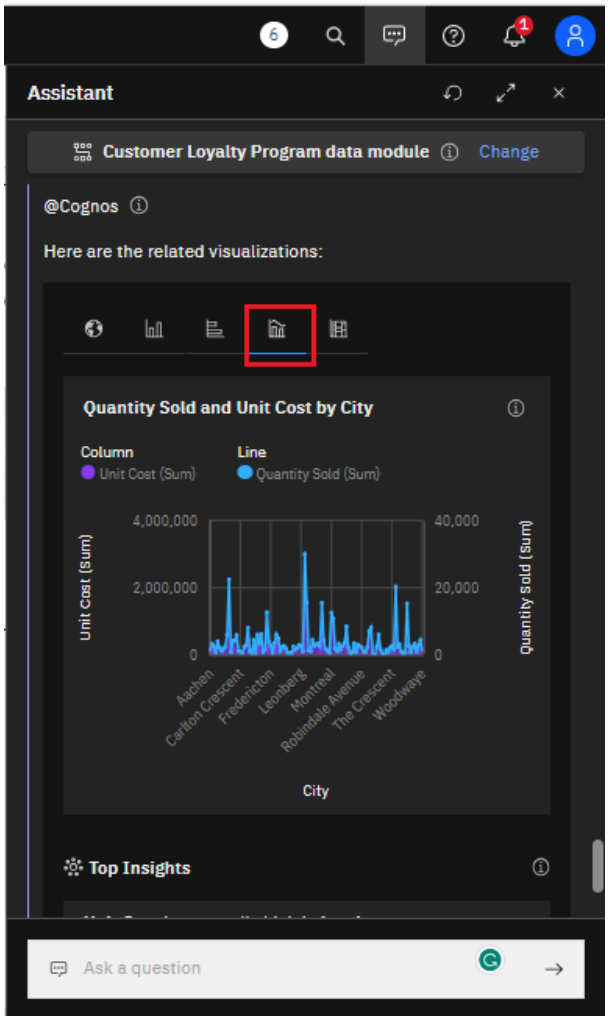
2. In the **Ask a question** input text box, at the bottom of the left hand pane, type **“show Quantity Sold and City”** and press **Enter**.



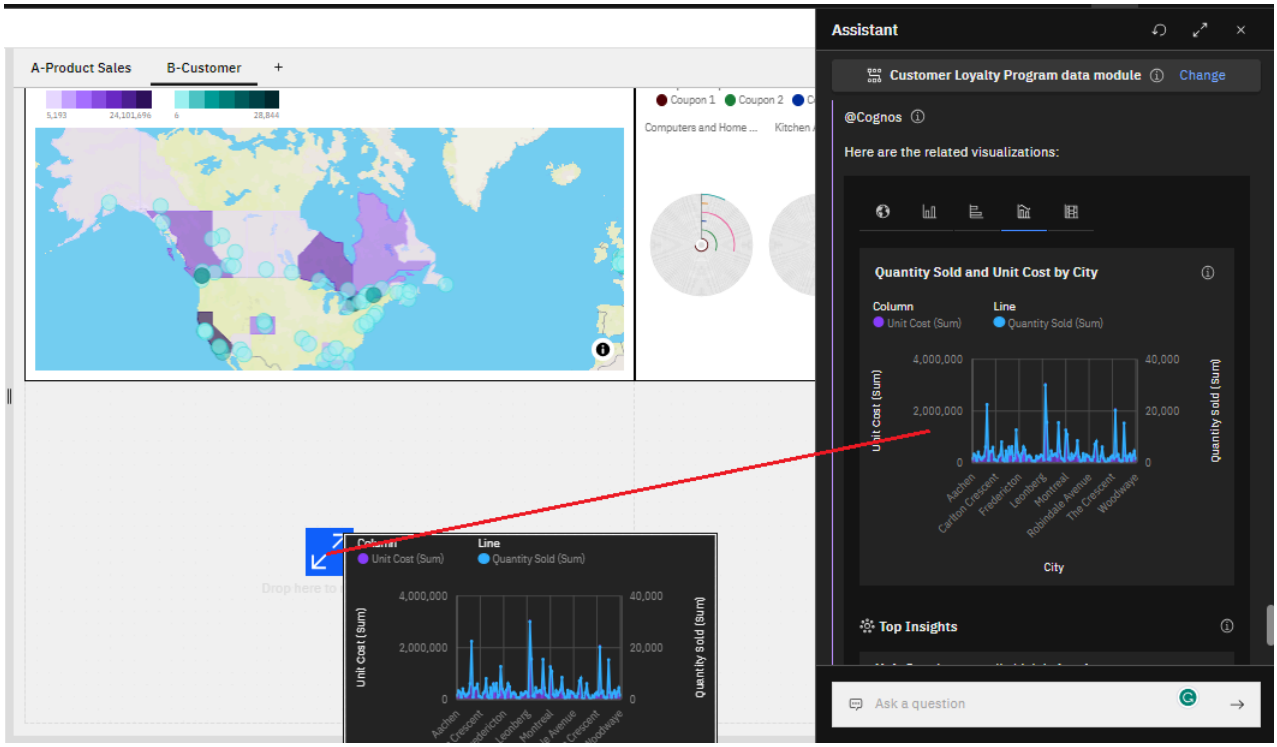
3. Click on **More** and then click on **show related visualizations**.



4. Select the fourth chart visualization.

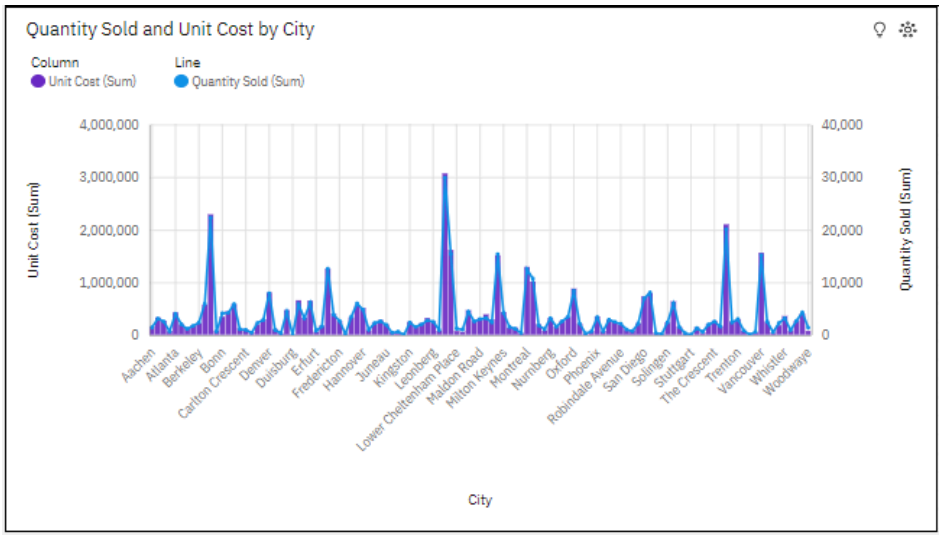


5. From the **Cognos Assistant** panel, select the second chart visualization and drag it to the center of **Panel 3**, releasing it once you see the **drop zone turn blue**.



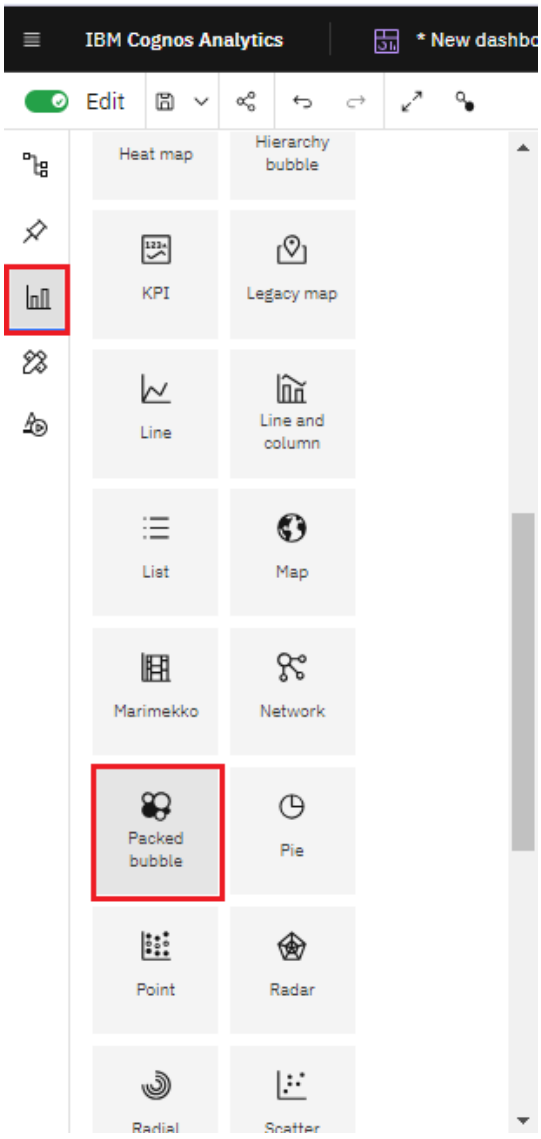
6. Click on the **"Quantity sold and Unit Cost by City" chart in Panel 3** if needed to bring it into focus.
7. Open the **Properties** panel and click on the **General** tab. Expand the **down arrow** next to **Appearance**. Click on **Border Color** to open the color options for borders. Apply a Black Border.
8. To save the current work of the dashboard, press **CTRL+S**.

9. Your **Panel 3 widget** should look like the one below:



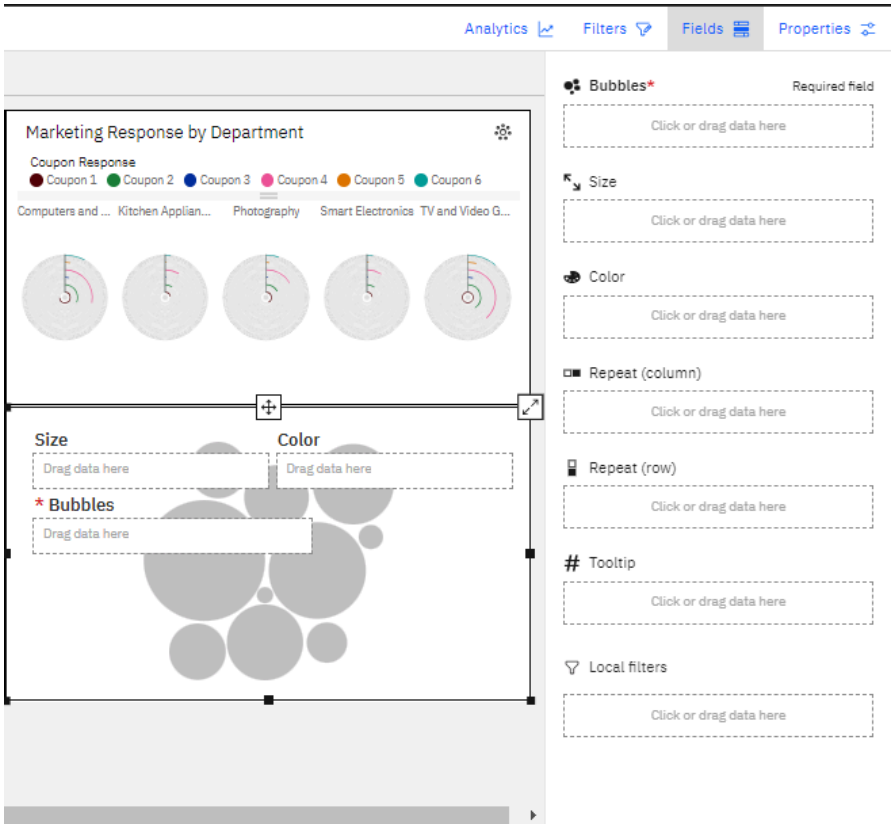
Task D : Using a Manual Method to Create a Visualization for Panel 4

1. From the **Navigation** panel, select **Visualizations** to open the Visualizations library.

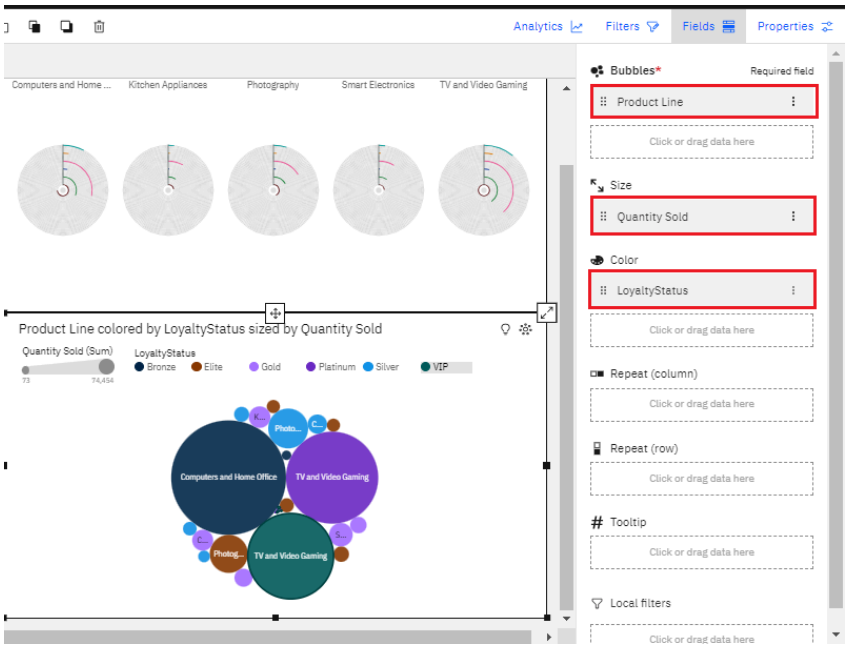


2. Select the **Packed Bubble** chart, and drag it to the center of **panel 4** of the dashboard template, releasing it once you see the **drop zone turn blue**.

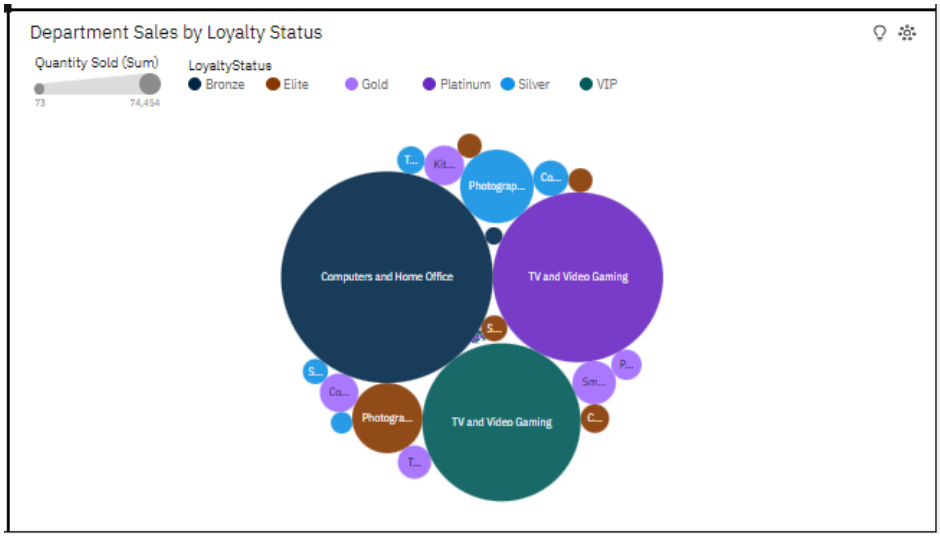
3. The Packed Bubble chart visualization will open along with the **Fields** panel for you to set up the data definitions for your visualization.



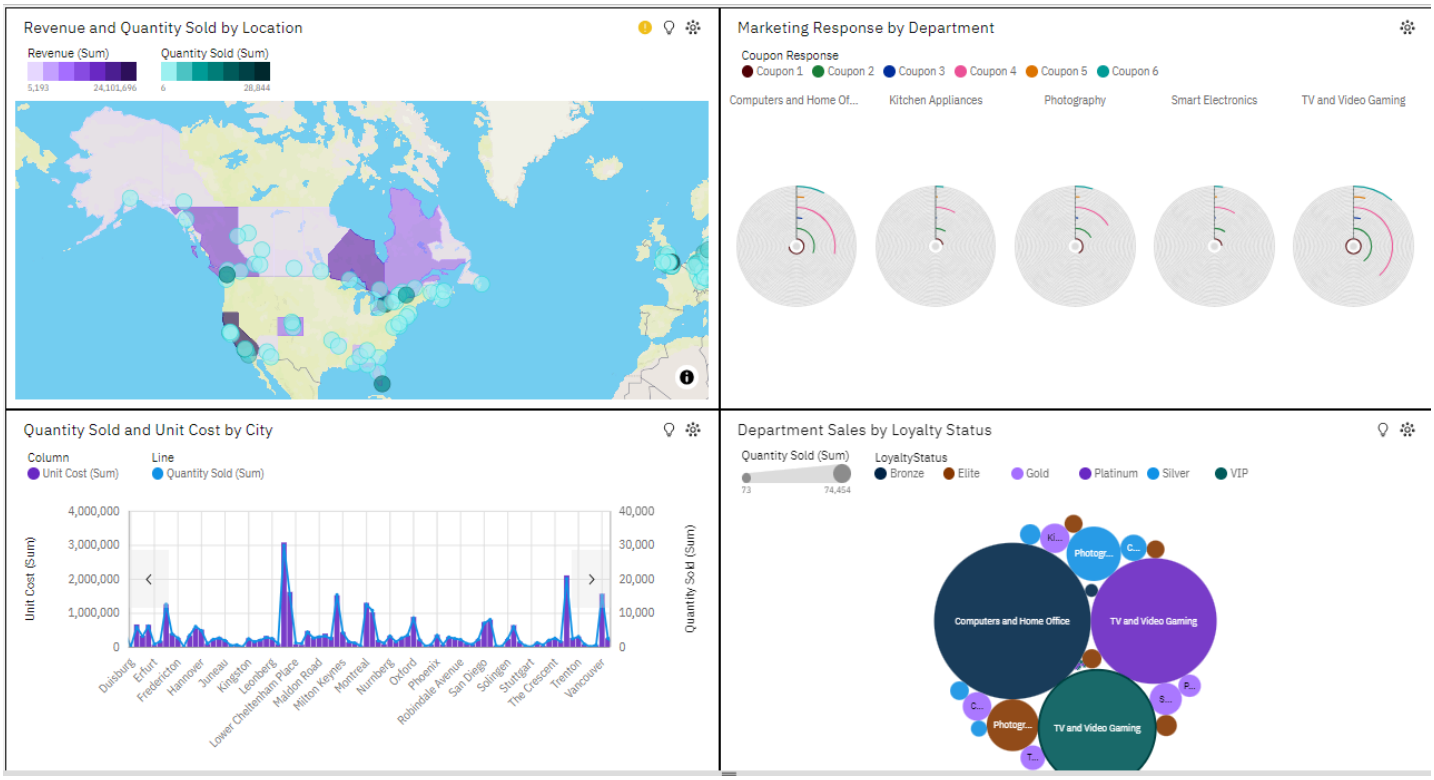
4. From the **Sources** panel on the left of the screen, drag and drop the **Product Line, Quantity Sold, Loyalty Status** sources into the **Bubbles, Size, Color** data slots of the Fields panel respectively.



5. Click on the **Fields** button to close the panel.
6. Click on the **Packed bubble chart widget in Panel 4** to bring it into focus. From the on-demand toolbar, click **Edit the title**. Enter the title “Department Sales by Loyalty Status” to the visualization.
7. Click on the **Packed bubble chart in Panel 4** if needed to bring it into focus.
8. Open the **Properties** panel and click on the **General** tab. Expand the **down arrow** next to **Appearance**. Click on **Border Color** to open the color options for borders. Apply a Black Border.
9. To save the current work of the dashboard, press **CTRL+S**.
10. Your **Panel 4 widget** should look like the one below:



Finally, your dashboard "B - Customer" should look like below:



Congratulations! You have completed Lab 5B, and you are ready for the next topic.

Author(s)

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Other Contributor(s)

- Steve Ryan

Changelog

Date	Version	Changed by	Change Description
2023-07-11	1.5	Pooja Patel	Updated screenshots and Instruction
2022-10-28	1.4	Pratiksha Verma	Updated screenshots
2021-06-18	1.3	Malika Singla	Updated screenshots
2020-09-23	1.2	Steve Ryan	Post review changes
2020-09-21	1.1	Steve Ryan	ID review
2020-09-17	1.0	Sandip Saha Joy	Initial version created