

Option A - Building a dashboard with IBM Cognos Analytics

Estimated time needed: 45 minutes

In this assignment, you will create some visualizations and add them to dashboards using IBM Cognos Analytics.

Software Used in this Assignment

In this assignment, you will use the free trial version of IBM Cognos Analytics Tool.

Prerequisites

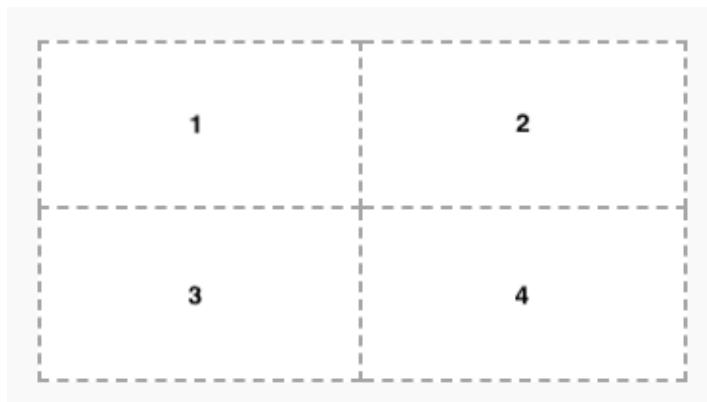
You need access to Cognos Analytics. This [Cognos lab](#) will guide to get your access to Cognos Analytics, and also get you started with how to use it to analyze the data.

Dataset Used in this Assignment

The dataset you are going to use in this assignment comes from the following source: [link](#)

Guidelines for the Submission

1. Get the files: "survey_data_updated.csv" from the downloaded folder and upload it as data assets to your project Cognos Analytics.
2. Create 3 dashboards (**3 separate tabs under a single dashboard**) as follows:
 - o One dashboard using the 2 x 2 rectangle areas tabbed template - rename this dashboard tab to **Current Technology Usage**.
 - o One dashboard using the 2 x 2 rectangle areas tabbed template - rename this dashboard tab to **Future Technology Trend**.
 - o One dashboard using the 2 x 2 rectangle areas tabbed template - rename this dashboard tab to **Demographics**.



3. On the **Current Technology Usage** dashboard tab, use the data asset **survey_data_updated.csv** and capture the following metrics as visualizations:
 - o In the first rectangle (**Panel 1**):
 - Capture **Top 10 LanguageHaveWorkedWith**.
 - Visualize as a **Bar chart**.
 - Utilize **Bars, Length, Color** fields of Bar chart.
 - Include **Show value labels** feature.
 - Include a proper **Chart title**.
 - o In the second rectangle (**Panel 2**):
 - Capture **Top 10 DatabaseHaveWorkedWith**.
 - Visualize as a **Column chart**.
 - Utilize **Bars, Length, Color** fields of Column chart.
 - Include **Show value labels** feature.
 - Include a proper **Chart title**.
 - o In the third rectangle (**Panel 3**):
 - Capture **Top 10 PlatformHaveWorkedWith**.
 - Visualize as a **Word cloud chart**.
 - Utilize **Words, Size, Color** fields of Word cloud chart.
 - Include a proper **Chart title**.
 - o In the fourth rectangle (**Panel 4**):
 - Capture **Top 10 WebFrameHaveWorkedWith**.
 - Visualize as a **Hierarchy bubble chart**.

- Utilize **Bubbles, Size, Color** fields of Hierarchy bubble chart.
- Include a proper **Chart title**.

4. On the **Future Technology Trend** dashboard tab, use the data asset **survey_data_updated.csv** and capture the following metrics as visualizations:

- In the first rectangle (**Panel 1**):
 - Capture **Top 10 LanguageWantToWorkWith**.
 - Visualize as a **Bar chart**.
 - Utilize **Bars, Length, Color** fields of Bar chart.
 - Include **Show value labels** feature.
 - Include a proper **Chart title**.
- In the second rectangle (**Panel 2**):
 - Capture **Top 10 DatabaseWantToWorkWith**.
 - Visualize as a **Column chart**.
 - Utilize **Bars, Length, Color** fields of Column chart.
 - Include **Show value labels** feature.
 - Include a proper **Chart title**.
- In the third rectangle (**Panel 3**):
 - capture **Top 10 PlatformWantToWorkWith**.
 - Visualize as a **Tree map chart**.
 - Utilize **Area hierarchy, Size, Heat** fields of Tree map chart.
 - Include **Contrast label color** feature.
 - Include a proper **Chart title**.
- In the fourth rectangle (**Panel 4**):
 - Capture **Top 10 WebframeWantToWorkWith**.
 - Visualize as a **Hierarchy bubble chart**.
 - Utilize **Bubbles, Size, Color** fields of Hierarchy bubble chart.
 - Include a proper **Chart title**.

5. On the **Demographics** dashboard tab, use the data asset **survey_data_updated.csv** and capture the following metrics as visualizations:

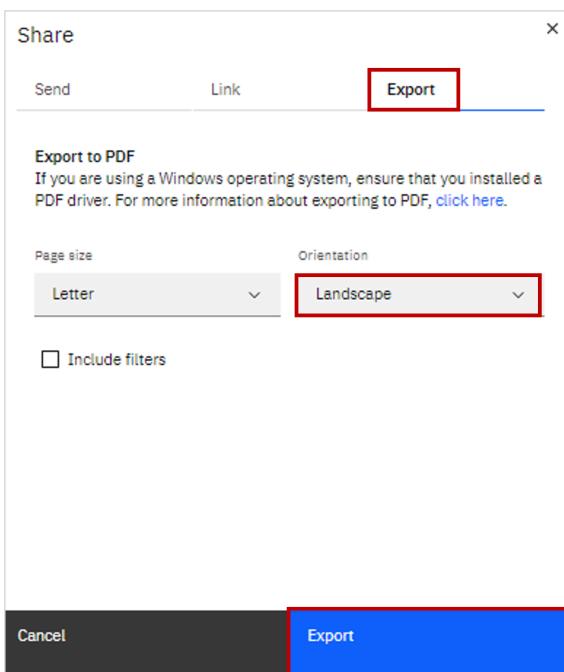
- In the first rectangle (**Panel 1**):
 - Capture **Respondent distribution by Age**.
 - Visualize as a **Pie chart**.
 - Utilize **Segments, Size** fields of Pie chart.
 - Include **Display %** feature.
 - Include a proper **Chart title**.
- In the second rectangle (**Panel 2**):
 - Capture **Respondent Count by Country**.
 - Visualize as a **Map chart**.
 - Utilize **Regions-Locations, Regions-Location color** fields of Map chart.
 - Include a proper **Chart title**.
- In the third rectangle (**Panel 3**):
 - Capture **Respondent distribution by Formal Education Level**.
 - Visualize as a **Line chart**.
 - Utilize **x-axis, y-axis** fields of Line chart.
 - Include **Show value labels** feature.
 - Include **Show markers** feature.
 - Include a proper **Chart title**.
- In the fourth rectangle (**Panel 4**):
 - Capture **Respondent Count by Age, classified by Education Level**.
 - Visualize as a **Stacked bar chart**.
 - Utilize **Bars, Length, Color** fields of Stacked bar chart.
 - Include **Show value labels** feature.
 - Include a proper **Chart title**.

6. To generate the GitHub link for the dashboard, please follow the instructions provided below:

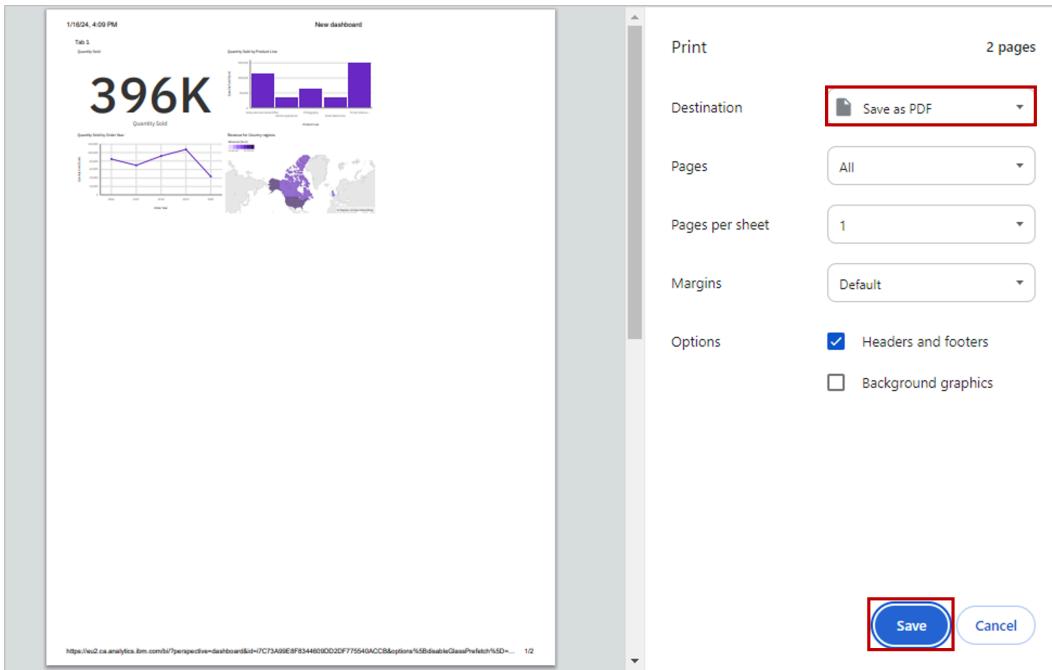
- On the application toolbar of your **dashboard page**, click **Share** icon.

The screenshot shows the IBM Cognos Analytics interface. At the top, there's a navigation bar with 'IBM Cognos Analytics' and 'New dashboard'. Below it is a toolbar with various icons like 'Edit', 'Share' (which is highlighted with a red box), and summary metrics. On the left, there's a sidebar with icons for 'Selected sources', 'Share', 'CustomerLoyaltyProgram (17)...', 'Search', and a list of dimensions: 'Postal code', 'Gender', 'Education', 'Location Code', and 'Income'. To the right, there's a main area titled 'Tab 1' containing a chart with the title 'Quantity Sold'. A 'Drag and drop data' instruction is visible.

- o Navigate to the **Export tab**, choose **Landscape** orientation, and click the **Export** button.



- o To save your dashboard as PDF, select Destination as **Save as PDF**, and click **Save**.



- Later, take screenshots of your dashboard.

Grading Information

For your assignment to be graded in a subsequent step in this module, you will be required to submit the permanent link to a read-only view of the dashboard you got in Task 6.

The main grading criteria will be:

- Have you downloaded the image of your dashboard that needs to be attached to the presentation?
- Have the correct tabs been created?
- Have you created the required number of visualizations for each tab of the dashboard?
- Have you captured the correct metrics, chart types, chart features and titles for each visualization?
- Are the results correct?

You will not be judged on:

- Your English language, including spelling or grammatical mistakes.

