



# Hands-on Lab: Getting Started with Cognos Analytics

Estimated time needed: 40 minutes

## Purpose of the Lab:

This lab is designed to introduce learners to IBM Cognos Analytics, an AI-fueled business intelligence platform. The primary objective is to guide you through the process of setting up a trial account, navigating the user interface, uploading external data, and creating a dashboard. The lab aims to familiarize you with the key functionalities of Cognos Analytics, including data discovery, dashboard creation, and visualization. It is structured to offer practical experience in integrating and visualizing data, which is fundamental for data-driven decision-making and business intelligence.

## Benefits of Learning the Lab:

By completing this lab, you will gain practical skills in using a leading business intelligence tool, enhancing their ability to analyze and visualize data effectively. The knowledge gained from this lab is particularly beneficial for individuals looking to improve their competencies in data analytics, dashboard creation, and data-driven storytelling. Mastery of these skills is crucial for professionals in data analysis, business intelligence, and related fields, as it enables them to derive insights from data and present them in a visually appealing and easy-to-understand format. This lab provides a stepping stone for those aspiring to become proficient in modern data analytics tools and techniques.

## 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 90 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:

- Sign up for a Cognos Analytics trial plan
- Navigate around the Cognos Analytics user interface
- Upload external data files to the Cognos Analytics platform
- Start a new dashboard with dashboard templates
- Create a simple dashboard

## Exercise 1: Sign up for Cognos Analytics Trial Plan

In this exercise, you will learn how to sign up for an IBM Cognos Analytics trial plan.

1. Go to [Try IBM Cognos Analytics](#).

Note: If you use your **existing cloud account**, you will get only 30 days trial for Cognos Analytics.

2. Fill out section **1. Account information** with your information and click **Next**. The email address you are going to use here will be called IBMid.



## On-line training - Data Visualizations - Trial

Learn the skills necessary to become a data analyst using Cognos Analytics. By registering for the IBM Data and Analyst Certificate, you have the opportunity to use the full suite of its capabilities for 90 days while you complete your course. Cognos helps you to understand your data and easily create compelling visualizations and reports.

- If you already have an IBMid, click [Log in](#). Enter your IBMid and password.  
[Click here](#) to start your free trial for Cognos Analytics and fill required information and press **Continue** at the bottom of the page.



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**Cognos Analytics**

Features

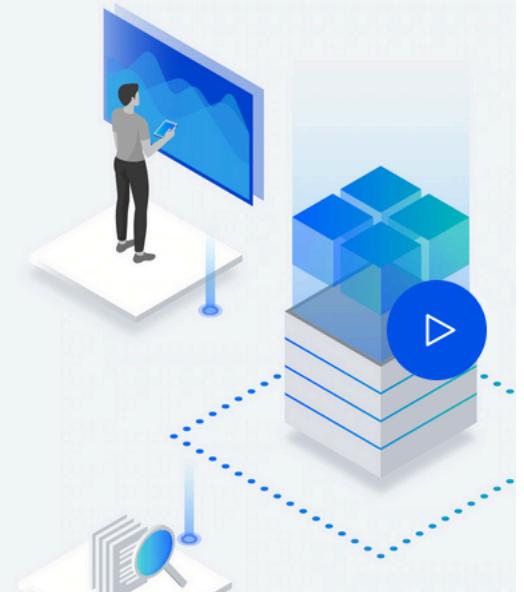
How it's used ▾

Resources

Pricing

# IBM Cognos Analytics

Introducing Cognos Analytics 12. Make better decisions, faster, with AI-powered insights for everyone.

[Start free for 30 days](#)[Request a live demo](#)

3. Fill out section **2. Additional information** with your information. In the case of the Data Center, select one which is nearest to your location. Then click **Next**.

## 2. Additional information

Are you a student? (optional)

Yes  No

Select Data Center (optional)

US East (Washington DC) 

Next 

4. Now enter the 7 digit code you received on your email address and click **Create account**.

### 3. Verify email

We emailed a 7 digit code to

[REDACTED] @gmail.com

This code will expire in 30 minutes.

Verification token

5734728

Didn't receive the email? Check your spam filter for an email from ibmacct@iam.ibm.com.

[Resend code](#)

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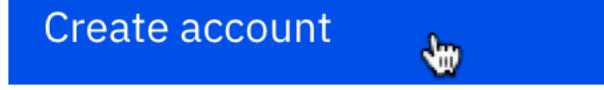
IBM may use my contact data to keep me informed of products, services and offerings:

by email

You can withdraw your marketing consent at any time by submitting an [opt-out request](#). Also you may unsubscribe from receiving marketing emails by clicking the unsubscribe link in each email.

More information on our processing can be found in the [IBM Privacy Statement](#). By submitting this form, I acknowledge that I have read and understand the IBM Privacy Statement.

I accept the product [Terms and Conditions](#) of this registration form.



Create account

5. Click **Proceed**.

# About your IBMid Account Privacy

This notice provides information about accessing your IBMid user account (Account). If you have previously been presented with a version of this notice, please refer to “Changes since the previous version of this notice” below for information about the updates.

Updates to the [IBM Privacy Statement](#) since this notice was originally published provide additional information about how your personal information is processed by IBM.

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## Changes since the previous version of this notice

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### What data does IBM collect?

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### Why IBM needs your data

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### How your data was obtained

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### How IBM uses your data

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### How IBM protects your data

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### How long we keep your data

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### Your rights

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I acknowledge that I understand how IBM is using my Basic Personal Data and I am

[Cancel](#)[Proceed](#)

6. You are now done with the sign up procedure. You will be redirected to [myibm.ibm.com/dashboard/](http://myibm.ibm.com/dashboard/) automatically. Wait for a few moments until the Coursera online training - Data Visualizations trial offering becomes active.

← → C Homemyibm.ibm.com/dashboard/

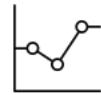
Vous vous trouvez sur la page de dashboard.

My IBM   Profile   Billing

# Products

## Trials

1 Offering



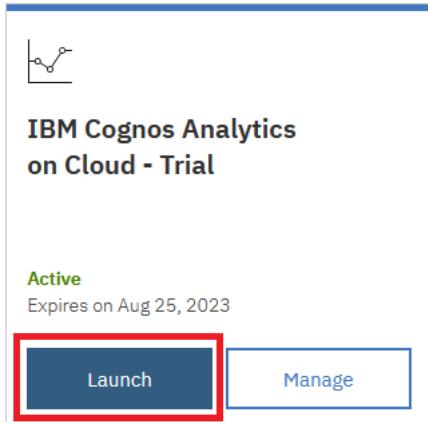
**Coursera on-line training -  
Data Visualizations**

## Activation in progress

[View support information](#)

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7. Click the **Launch** button for this offering.



If it has been more than 72 hours since you initiated your Cognos Trial activation, but it's still showing *Activation in Progress*, please let us know on the [forum](#) so we can follow up with the Cognos team on your behalf.

**NOTE:** The trial will not be activated for learners in countries under US sanctions.

8. You have successfully launched the Cognos Analytics platform, it will look as below.

The screenshot shows the IBM Cognos Analytics homepage. At the top, there's a dark header bar with the IBM Cognos Analytics logo and a navigation menu icon. Below the header, a white bar contains a "Ask a question" button with a speech bubble icon and a grey "→" button. The main content area has a light blue background. It features a section titled "Introduction to Cognos Analytics" with the subtext "Leverage self-service analytics to make more confident decisions." To the right of this section are two buttons: "Get started" and "Watch video". Below this, there are two large grey boxes. The left box, titled "Upload data and start creating content", contains the subtext "Upload spreadsheets, CSV files, and other types of files, and create content based on these files." The right box, titled "Create content from existing data", contains the subtext "Locate data sources in the Content view, and create content on these sources." At the bottom left, there's a "Recent" tab with a blue underline, followed by a large, empty grey rectangular area.

**Introduction to Cognos Analytics**

Leverage self-service analytics to make more confident decisions.

**Get started** **Watch video**

**Upload data and start creating content**

Upload spreadsheets, CSV files, and other types of files, and create content based on these files.

**Create content from existing data**

Locate data sources in the Content view, and create content on these sources.

**Recent**

- From now on, if you want to sign in to the Cognos Analytics platform with your IBMid, go to [myibm.ibm.com](http://myibm.ibm.com). Enter your IBMid and password and then repeat steps 7 and 8.

# Log in to IBM

IBMid

[Forgot IBMid?](#)

[REDACTED]@gmail.com

Remember Me [\(i\)](#)

Continue



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Do not have an account? [Create an IBMid](#)

## Exercise 2: Navigate around the Cognos Analytics UI

In this exercise, you will learn general navigation around the Cognos Analytics user interface (UI).

1. The goal of the Cognos Analytics UI is to provide you with a streamlined way to get started using Cognos Analytics and view content and activities pertinent to them. You will begin your general navigation here.

The screenshot shows the IBM Cognos Analytics interface. At the top, there's a dark header bar with the "IBM Cognos Analytics" logo, the "Application Toolbar" (which has a red border around it), and a "Trail Countdown" section. Below the toolbar, there's a "Introduction to Cognos Analytics" section with a "Get started" button (also highlighted with a red border) and a "Watch video" button. A "Video Demo" link is also visible. The main content area has a red border and contains sections for "Upload Data" (with a large blue arrow icon) and "Create content from existing data". The "Upload Data" section includes instructions: "Upload data and start creating content" and "Upload spreadsheets, CSV files, and other types of files, and create content based on these files." The "Create content from existing data" section includes "Locate data sources in the Content view, and create content on these sources." Below these sections, there are tabs for "Recent" (which is underlined in blue) and "Upload Data".

- Click the **Navigation Bar**, you can use **New** to create new items, you can use **Upload data** to upload your external data files, the **Content** section is where you can create new content or open different samples to work with, and the **Recent** section shows any recently used files you've worked on.

The screenshot shows the "IBM Cognos Analytics with Watson" navigation bar. It has a dark background with white text. The "Navigation Bar" title is at the top. Below it are five items: "+ New" (with a red border around the button), "Upload files", "Content", "Recent", and "Manage". Each item has a small icon to its left. Red annotations are overlaid on the image: a red box highlights the "+ New" button with the text "Creating new dashboard, data module.". Another red box highlights the "Upload files" button with the text "To upload new files". A third red box highlights the "Content" button with the text "To get the content, team content & samples.". A fourth red box highlights the "Recent" button with the text "To get recent activities >".

- Once you begin working with content, the menu will update with your recently used items. In your Cognos Analytics instance, you may see recent content on the canvas.
- You can always use the **Assistant** icon in the top right of the page to find insights from your data once data is uploaded.

The screenshot shows the IBM Cognos Analytics Assistant interface. At the top, there's a header bar with the IBM logo and the text "IBM Cognos Analytics". Below the header, the word "Assistant" is displayed. In the top right corner, there are three small icons: a gear, a person, and a 3D cube. The main area has a purple background. At the top left, it says "@Cognos ⓘ Welcome to Assistant". In the center, there's a large blue section titled "Get started" with the text: "To get answers about your data, connect to a data source first. Click **Select source** and choose the source. Then, start asking questions." A blue rectangular box highlights the "Select source" button. Below this, there are two columns: "Ask questions" and "Create dashboard". Under "Ask questions", there's a text input box with placeholder text and a list of examples. Under "Create dashboard", there's a brief description and a link. To the right, there's a "Get help" section with a link. At the bottom, there's a "Ask a question" button with a blue rectangular box highlighting it.

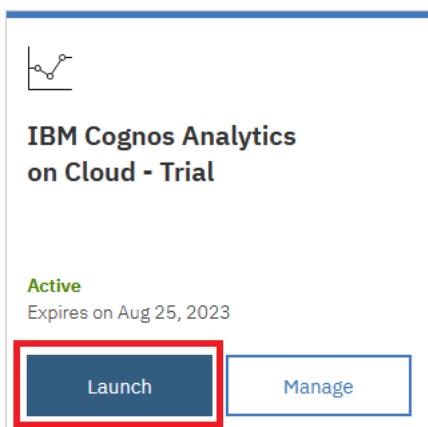
## Exercise 3: Create a Simple Dashboard with Cognos Analytics

In this exercise, you will learn how to upload external data files to Cognos Analytics, and then learn how to start a new dashboard with templates. Lastly, you will learn how to create a simple dashboard.

### Task A: Upload External Data Files

In this task, you will learn how to upload external data files to Cognos Analytics.

1. Download the file [CustomerLoyaltyProgram.csv](#).
2. If you are not currently signed in, sign in to the Cognos Analytics platform with your IBMID, by navigating to [myibm.ibm.com/dashboard/](#).
3. Enter your IBMID and password, then scroll down and click **Launch**.



4. To upload a file, click the **Upload data and start creating content** link.

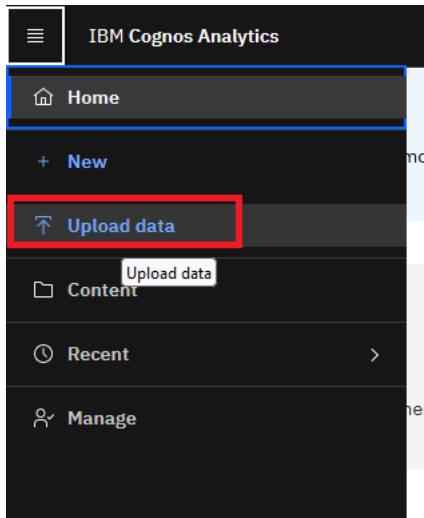
The screenshot shows the IBM Cognos Analytics homepage. At the top, there's a navigation bar with a menu icon, the text "IBM Cognos Analytics", and a "24" badge. Below the header is a search bar with the placeholder "Ask a question" and a magnifying glass icon. The main content area has a light blue background. It features a section titled "Introduction to Cognos Analytics" with the subtext "Leverage self-service analytics to make more confident decisions.". To the right of this text are two buttons: "Get started" and "Watch video".

This screenshot displays two options for content creation. On the left, a red-bordered box contains a blue upward arrow icon and the text "Upload data and start creating content". Below this, it says "Upload spreadsheets, CSV files, and other types of files, and create content based on these files.". On the right, there's a blue folder icon and the text "Create content from existing data". Below this, it says "Locate data sources in the Content view, and create content based on these sources.".

5. Click on **Drag and drop file here or click to upload**, updated new file browser window will open. Navigate to where the file is saved, select the file, and click **Open**.

This screenshot shows the "Upload data and start creating content" interface. At the top, it says "You can upload supported file types that are stored in any location to which your computer has local or LAN access." Below this is a red-bordered box containing the text "Drag and drop file here or click to upload". Further down, there's a link "Want to know more about uploading data? [Learn more](#)". At the bottom, there are "Cancel" and "Back" buttons.

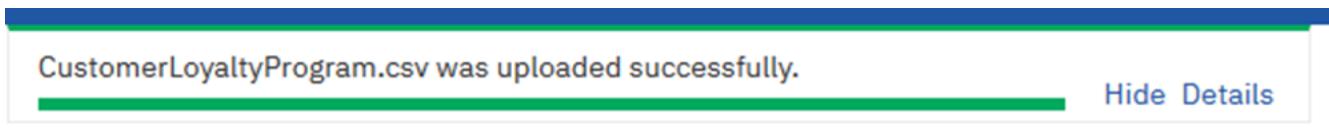
6. Alternatively, from the menu, click **Upload data**.



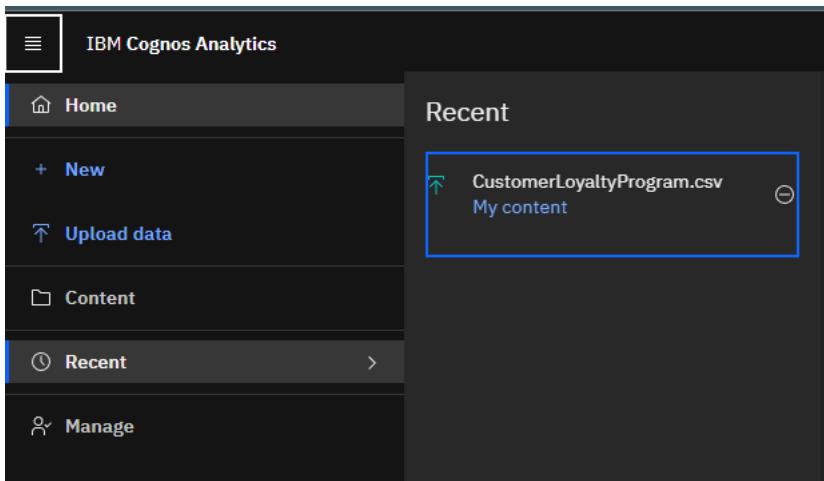
- As the file uploads, notice that a series of status bars will be visible as the upload process reads and analyzes the data being brought in.



- Once it completes, the status bar will update to show the successful completion before closing.



- In the **Recent** section, you will see the new uploaded data file.



## Task B: Convert the uploaded CSV file into Data Module and view the table on IBM Cognos.

In this task, you will learn how to view the dataset on IBM Cognos.

- In the menu, click **Content**, then select the **My content** tab.

The screenshot shows the 'Content' page in IBM Cognos Analytics. At the top, there is a navigation bar with the 'IBM Cognos Analytics' logo and a 'Content' dropdown. Below the navigation bar, there are three tabs: 'My content' (which is highlighted with a red box), 'Team content', and 'Samples'. Under the 'My content' tab, there is a list item named 'CustomerLoyaltyProgram.csv'. This item has a small thumbnail, the text 'Last Accessed 03/08/2023, 11:13', and two small buttons labeled 'CSV' and an upward arrow.

2. Click the **Action Menu** (represented by three dots) to the right of the *CustomerLoyaltyProgram.csv* file, and then click **Create data module**.

The screenshot shows the 'Content' page in IBM Cognos Analytics. The 'Recent' tab is selected. A file named 'CustomerLoyaltyProgram.csv' is listed. To its right is an 'Action menu' represented by three dots, which is currently open. A red box highlights the 'Create data module' option in the menu. Other options in the menu include 'Create exploration', 'Create dashboard', 'Replace file', 'Append file', 'Share', 'Copy or move to', 'Add shortcut', 'Edit name and description', 'Properties', 'Details', 'Remove from recent', and 'Delete'.

3. Click the **Action Menu** (represented by three dots) to the right of **New data Module**, and click the **Table** option to launch the **Create table** window.

The screenshot shows the IBM Cognos Analytics interface. At the top, there's a navigation bar with icons for file, search, and refresh. Below it is a toolbar with various icons. The main area is titled 'Data module' and contains a search bar. A context menu is open over a dataset named 'CustomerL...gram.csv'. The menu has a 'New' section with several options: 'Calculation...', 'Relationship...', 'Filter...', 'Folder', 'Table using SQL...', and 'Table...'. The 'Table...' option is highlighted with a red box. To the right of the menu, there's a circular icon labeled 'Preview data' with a small preview window showing a grid. Below the preview is a note: 'To preview data, select a table, a column in a table, or a folder that contains columns.'

- Click **Select tables**, select the checkbox for the uploaded dataset **CustomerLoyaltyProgram.csv**, and then click the **Next** button to proceed with the creation of the table.

The screenshot shows the 'Create table' dialog box. On the left, there's a sidebar with a 'Selected tables' section containing a 'Find' field and a 'CustomerL...gram.csv' entry with a checked checkbox. Below this is a 'Select tables' section with a 'Select and add tables to create a new table from' instruction and a 'Select tables' button, which is highlighted with a red box. The main area contains a 'View of tables' section with a 'Find' field and a 'Create a view of a table' link. To the right, there are several options for creating a new table: 'Alias of a table', 'Copy of a table', 'Joined view', 'Union of tables', 'Intersect of tables', and 'Except of tables'. Each option has a brief description below it. At the bottom, there are 'Cancel' and 'Next' buttons, with 'Next' being highlighted with a red box.

- In the **Create a view of a table** window, click the **Refresh** button to view the data.

## Create a view of a table

New table name: CustomerLoyaltyProgram.csv - View (1)

Select items	Row Id	Loyalty#	First Name	Last Name	Customer Name	Country
<input type="checkbox"/> CustomerLoyaltyProgram.csv <input checked="" type="checkbox"/>						
					Data will appear here	
					<input style="border: 2px solid red; padding: 2px 10px; margin-right: 10px;" type="button" value="Refresh"/>	
<input type="button" value="Invert"/>	<input type="button" value="Clear all"/>					

(29) columns selected.

**Previous** **Cancel** **Finish**

6. Now, you will be able to view the data in the table. Click **Finish**.

## Create a view of a table

New table name: CustomerLoyaltyProgram.csv - View (1)

Select items	Row Id	Loyalty#	First Name	Last Name	Customer Name	Country
<input type="checkbox"/> CustomerLoyaltyProgram.csv <input checked="" type="checkbox"/>	1	837810	Abigail	Goris	Abigail Goris	Canada
	2	707928	Ada	Glaude	Ada Glaude	Germany
	3	901442	Ada	Staback	Ada Staback	Canada
	4	237303	Adam	Boner	Adam Boner	Canada
	5	348835	Adam	Dunnegan	Adam Dunnegan	Canada
	6	186842	Adelaide	Drago	Adelaide Drago	Germany
	7	605640	Adell	Maroni	Adell Maroni	United Kingdom
	8	723924	Adolph	Prey	Adolph Prey	Germany
	9	202299	Adria	Osterstuck	Adria Osterstuck	Canada
	10	826271	Adriane	Dottin	Adriane Dottin	Canada
	11	616030	Akilah	Caravalho	Akilah Caravalho	Germany
	12	747903	Al	Johson	Al Johson	United States
<input type="button" value="Invert"/>	<input type="button" value="Clear all"/>					

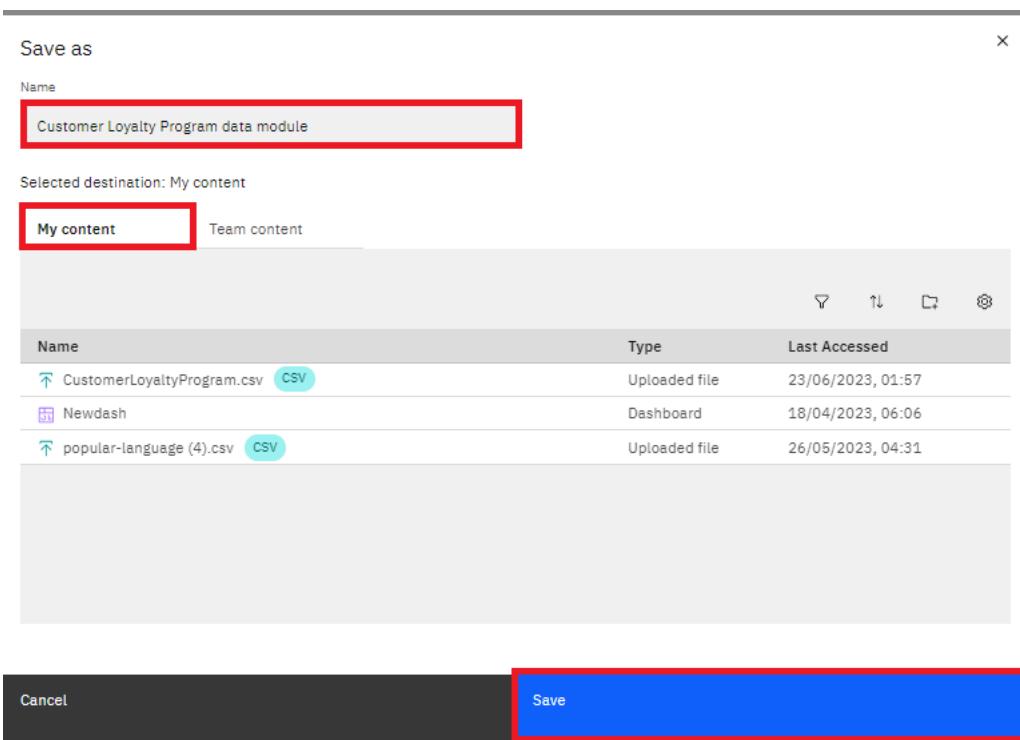
(29) columns selected.

**Previous** **Cancel** **Finish**

7. The new table view will be added in the source panel. Save this data module by clicking **Save**.

The screenshot shows the IBM Cognos Analytics interface. On the left, there's a navigation bar with icons for Home, Save, New, Relationships, and Custom tables. Below it is a 'Data module' section with a search bar and a tree view. The tree view has a red box around the 'CustomerL...View (1)' entry. To the right, under 'CustomerLoyaltyProgram.csv - View (1)', there are two entries: 'CustomerL...ogram.csv' and 'CustomerLo...- View (1)', with the second one also having a red box around it.

8. In the **Save as** window, enter the name **Customer Loyalty Program data module**, select the **My content** tab as the destination, and click **Save** to proceed.



9. Next, in the IBM Cognos Analytics main menu, select **Content**.

The screenshot shows the IBM Cognos Analytics interface. On the left, there is a sidebar with the following options: Home, New, Upload data, Content (which is highlighted with a red box), Recent, and Manage. The main area is titled "Customer Loyalty ... data module" and shows a "Custom tables" tab selected. Below it, there is a link to "CustomerLoyaltyProgram.csv - View (1)".

10. You will now see the new **Customer Loyalty Program data module** under the **My Content** tab.

The screenshot shows the "Content" tab selected in the navigation bar. Under "My content", there is a card for "Customer Loyalty Program data module". The card includes the file name, last accessed date (23/06/2023, 03:18), and a preview icon. To the right, there are other items: "CustomerLoyaltyProgram.csv" (last accessed 23/06/2023, 01:57), "Newdash" (last accessed 18/04/2023, 06:06), and "popular-language (4).csv" (last accessed 26/05/2023, 04:31). Each item has a "CSV" button and an upward arrow icon.

## Task C: Start a New Dashboard with Templates

In this task, you will learn how to start a new dashboard with templates.

1. In the IBM Cognos Analytics main menu, click **Recent**, select the uploaded data file **CustomerLoyaltyProgram.csv**.
2. In the blue menu bar, click **Create** and then click **Create dashboard**.

Recent

Step 1 - Select Dataset

CustomerLoyaltyProgram.csv

Last Accessed  
7/26/2023, 5:22 AM

CSV 

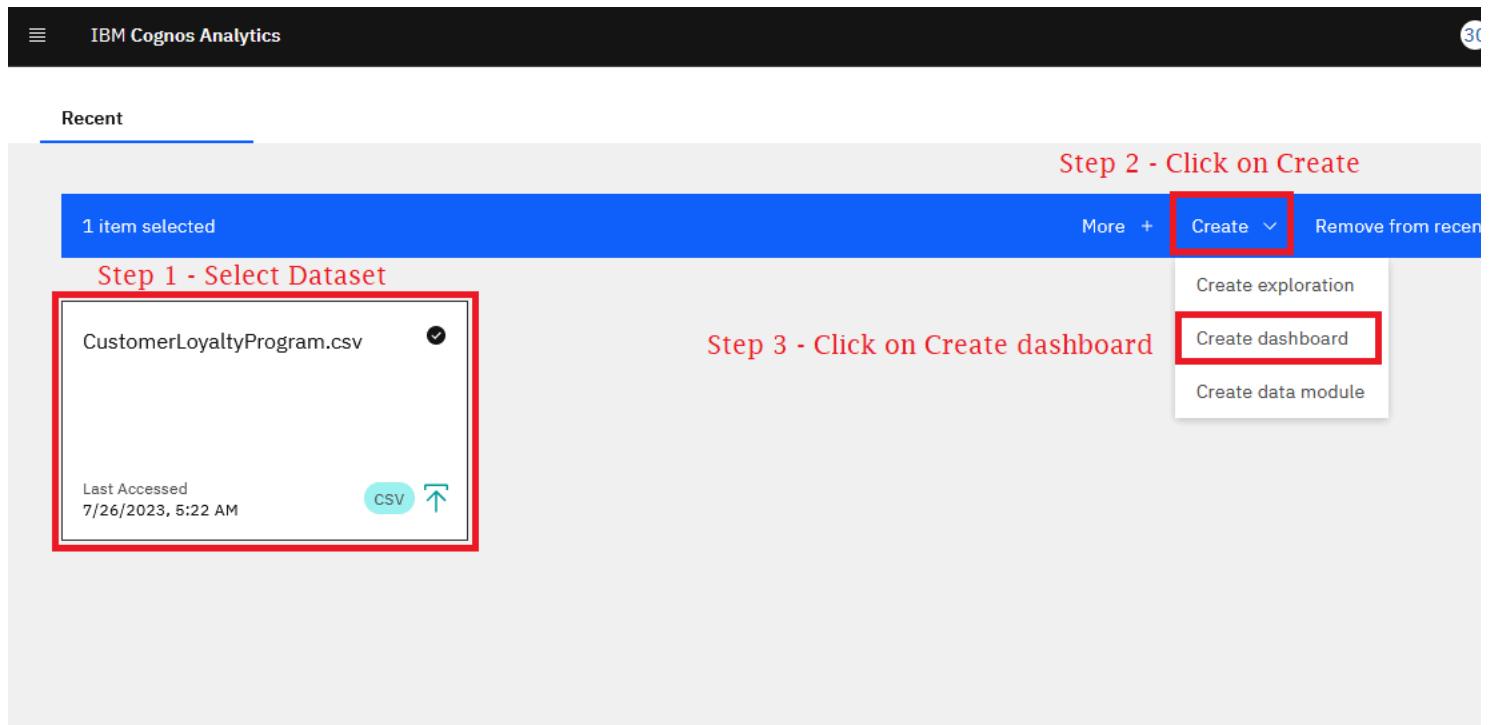
Step 2 - Click on Create

More + **Create** Remove from recent

Create exploration

**Create dashboard**

Create data module



The *Create a dashboard* window will display, allowing you to select the type of dashboard and the template style.

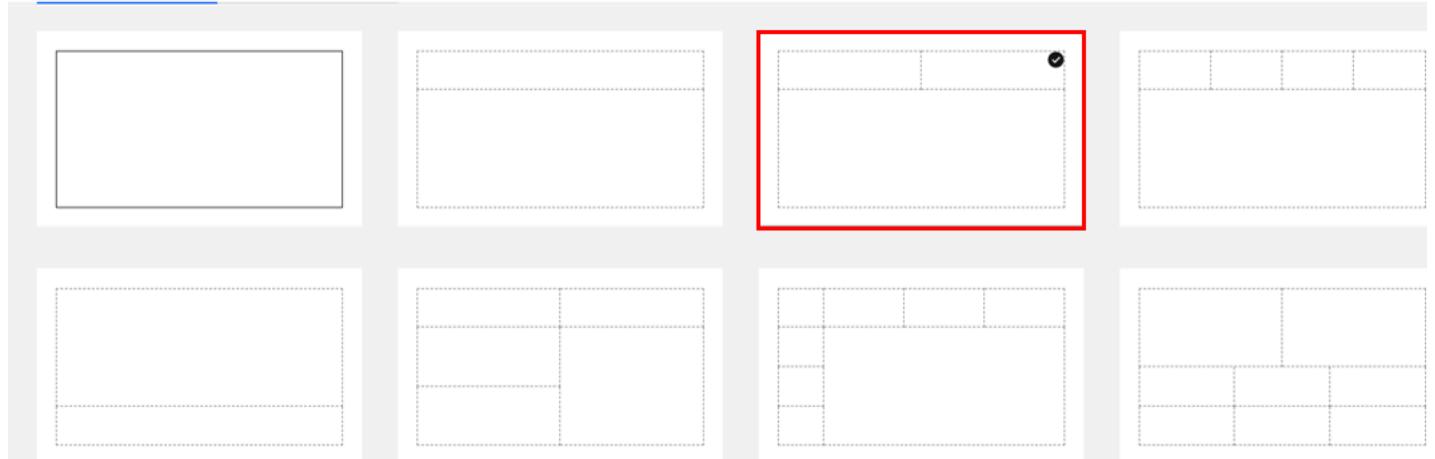
3. Select the **Tabbed** dashboard style. This will allow you to have multiple pages for your dashboards.
4. Select the *three-panel template*, which should be the third one displayed, and then click **Create**.

## Create a dashboard

Select a template for your dashboard

**Tabbed**

Infographic

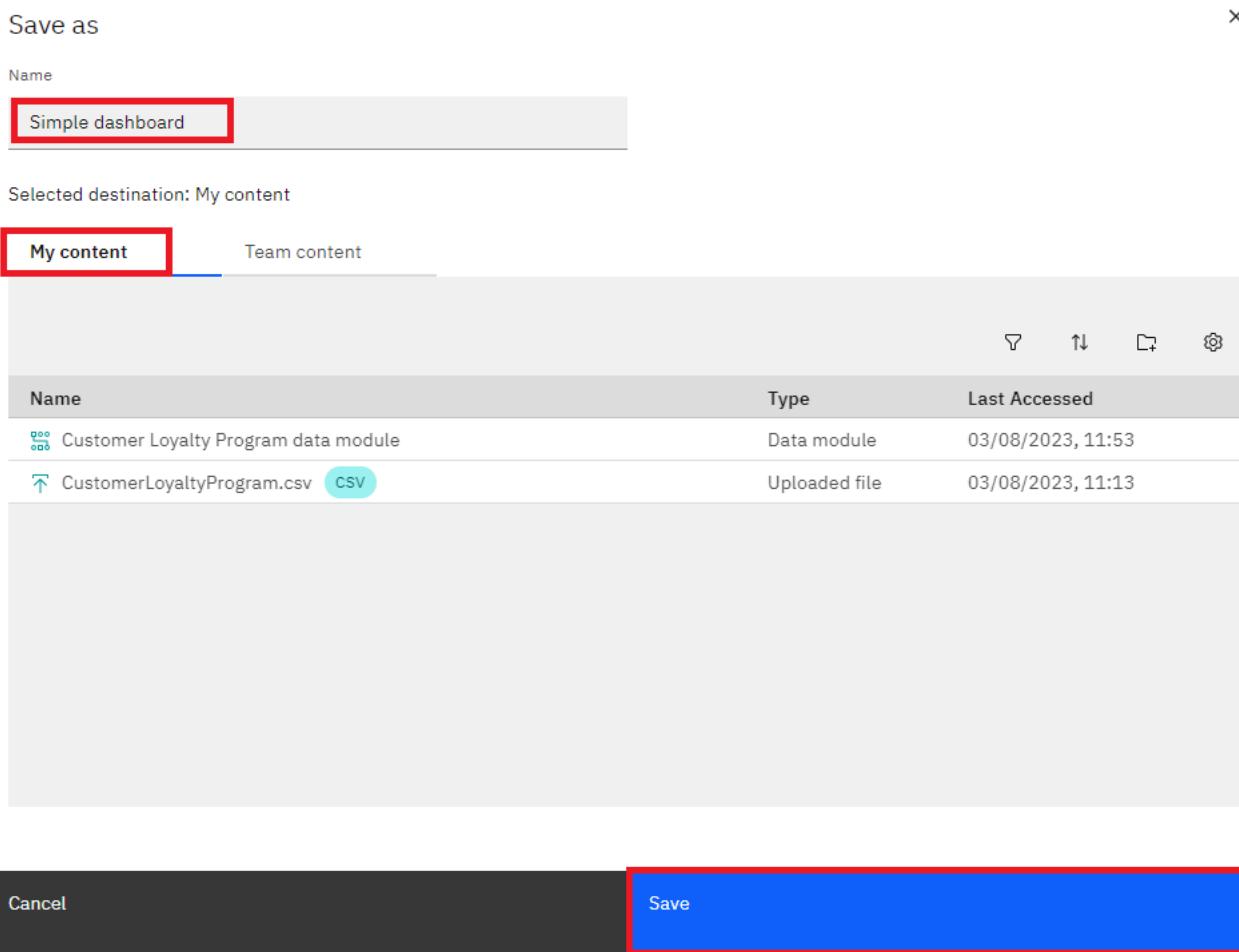


5. Now, you have created a new dashboard using a dashboard template.

The screenshot shows the Power BI desktop application. At the top is the Application Toolbar with various icons. Below it is the Filter Dock, which includes tabs for 'All tabs' and 'This tab'. The main area is divided into two panels: the 'Data Source Panel' on the left and the 'Dashboard Template' on the right. The Data Source Panel displays a tree view of data sources, including 'CustomerLoyaltyProgram.csv' and various fields like Loyalty#, First Name, Last Name, etc. The Dashboard Template is currently empty, labeled 'Tab 1'. A red box highlights the 'Navigation Panel with Dashboard Toolbox' on the far left.

6. To save the newly created dashboard, click the **Save** icon in the toolbar or press **CTRL+S**.

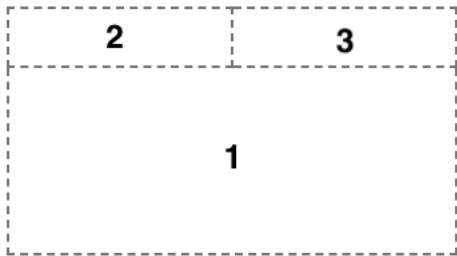
7. Select **My content** as the destination. In the **Name** field, enter *Simple dashboard*, and click **Save**.



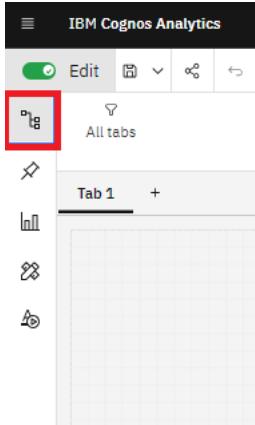
## Task D: Create a Simple Dashboard

In this task, you will learn how to create a simple dashboard with Cognos Analytics.

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



- 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*.



- From the data source panel, press the **CTRL** key and select **Order Year**, **Quantity Sold**, and **Product Line**, and drag them to the center of **Panel 1**, releasing them once you see the drop zone turn blue.

Search

All tabs

- Navigation paths
- + **CustomerLoyaltyProgram.csv**
- > # Loyalty#
- > abc First Name
- > abc Last Name
- > abc Customer Name
- > Ⓜ Country
- > Ⓜ Province or State
- > Ⓜ City
- > Ⓜ Latitude
- > Ⓜ Longitude
- > Ⓜ Postal code
- > abc Gender
- > abc Education
- > abc Location Code
- └ Income
- > abc Marital Status
- > ⏰ Order Year
- > ⏰ Quarter
- └ MonthsAsMember
- > abc LoyaltyStatus
- > abc Product Line
- > abc Coupon Response
- └ Count
- └ Quantity Sold
- └ Unit Sale Price
- └ Unit Cost
- └ -

**Tab 1**

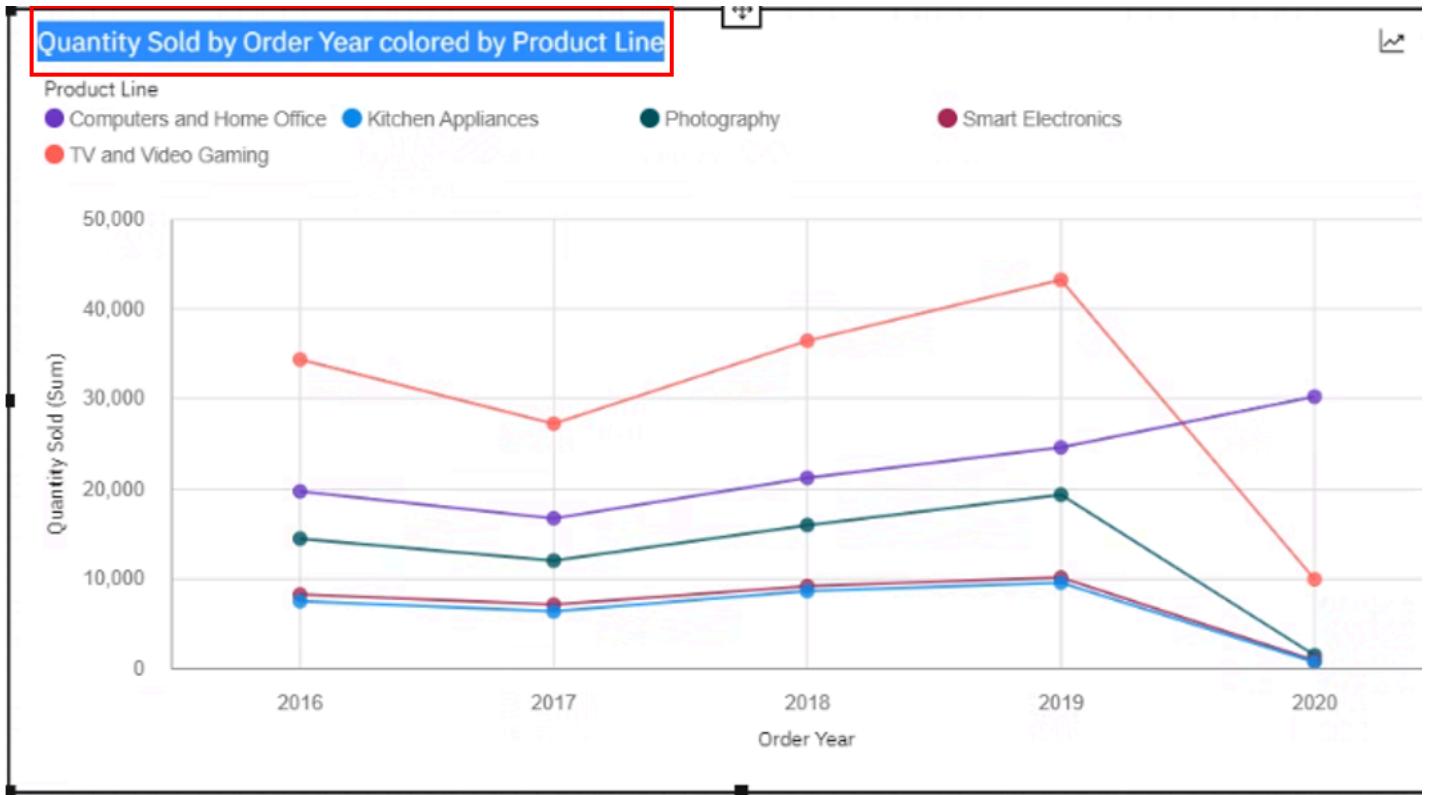
Revenue

Customer Lifetime Value

Loyalty Count

4. Click the line chart in **Panel 1** to bring it into focus and open the on-demand toolbar, which will be added to the main toolbar.

5. In the line chart visualization, select the title text and change it to *Product Line Performance by Year*.



6. Highlight the title text and use the on-demand toolbar to change the properties of the title.

IBM Plex



A

16



B

I

U



Title On-demand To



All tabs

Drag and drop data here to filter all tabs.

Tab 1



## Product Line Performance by Year

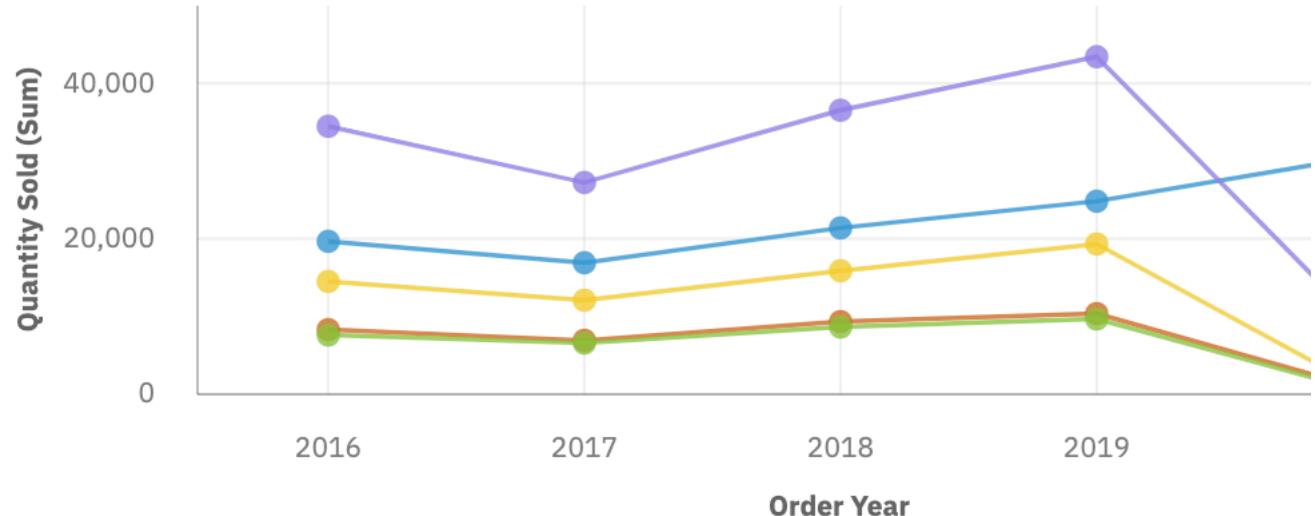
### Product Line

● Computers and Home Office ● Kitchen Appliances

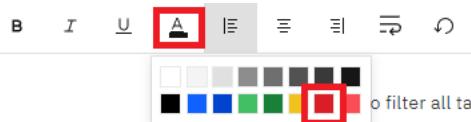
● Smart Electronics

● TV and Video Gaming

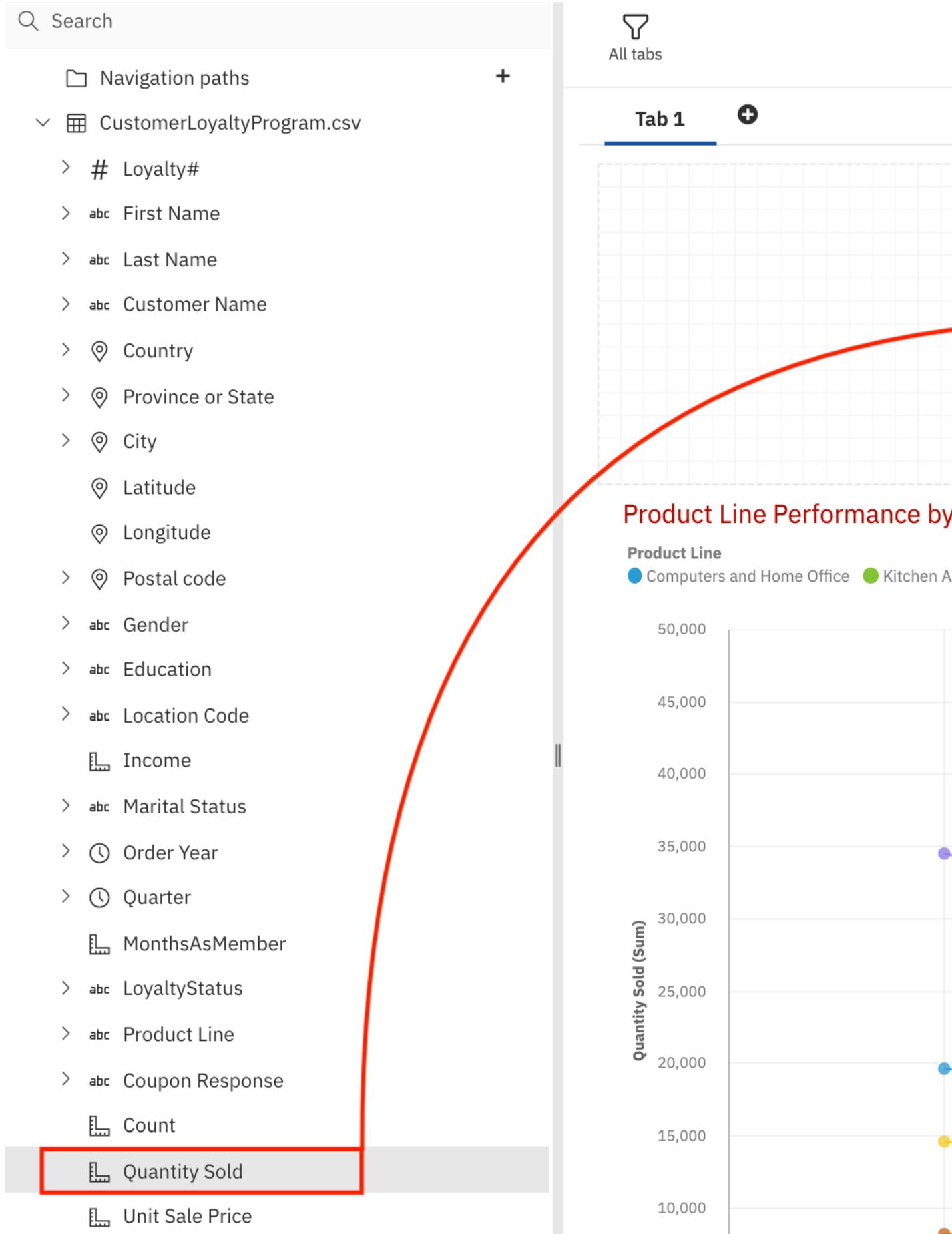
● Photography



7. Click the **Color picker** icon, and change the color to **Red**, then click the font size drop-down menu and choose **18**.



8. From the data source panel, select **Quantity Sold** and drag it to the center of **Panel 2**, releasing it once you see the drop zone square turn blue.



9. From the data source panel, select **Revenue** and drag it to the center of **Panel 3**, releasing it once you see the drop zone square turn blue.

Search

- Navigation paths
- + **CustomerLoyaltyProgram.csv**
- > # Loyalty#
- > abc First Name
- > abc Last Name
- > abc Customer Name
- > Ⓜ Country
- > Ⓜ Province or State
- > Ⓜ City
- > Ⓜ Latitude
- > Ⓜ Longitude
- > Ⓜ Postal code
- > abc Gender
- > abc Education
- > abc Location Code
- └ Income
- > abc Marital Status
- > Ⓡ Order Year
- > Ⓡ Quarter
- └ MonthsAsMember
- > abc LoyaltyStatus
- > abc Product Line
- > abc Coupon Response
- └ Count
- └ Quantity Sold
- └ Unit Sale Price
- └ Unit Cost

 All tabs

Tab 1

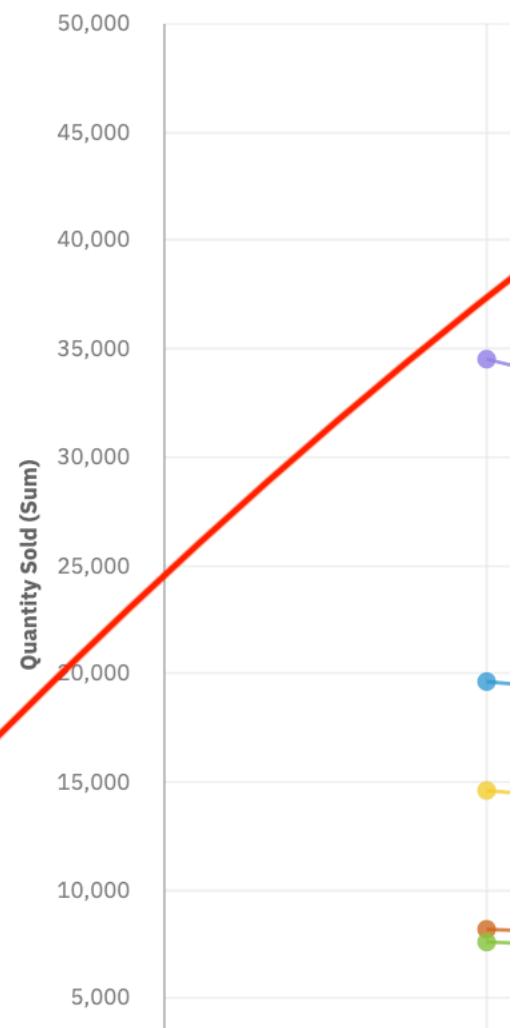


### Quantity Sold

### Product Line Performance by

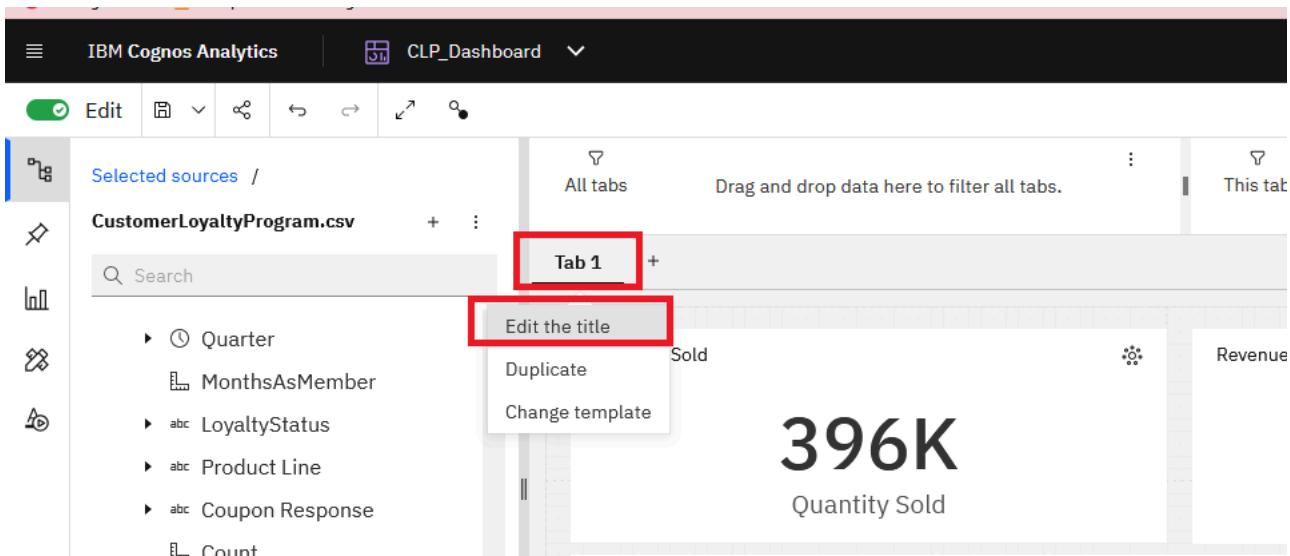
#### Product Line

● Computers and Home Office ● Kitchen Ap

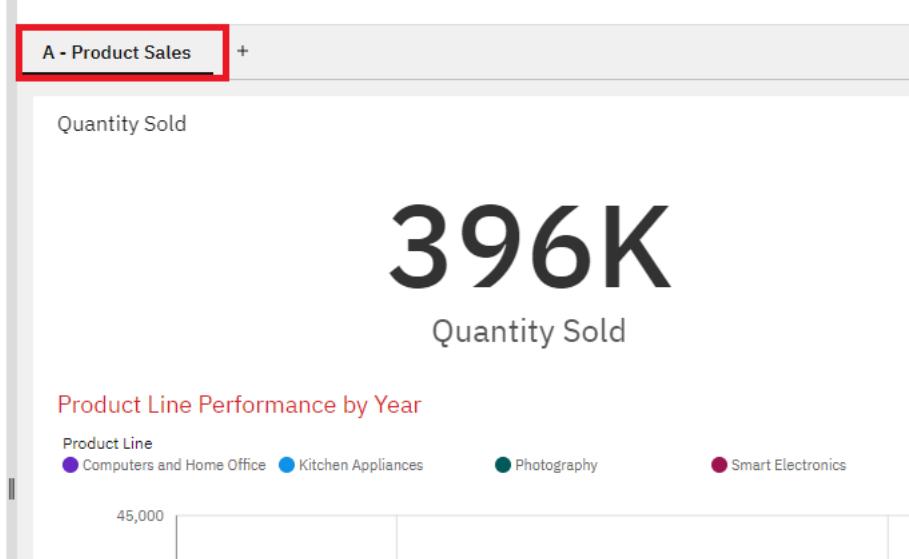




10. Click the tab name **Tab 1** and in the mini-menu select **Edit the title**.



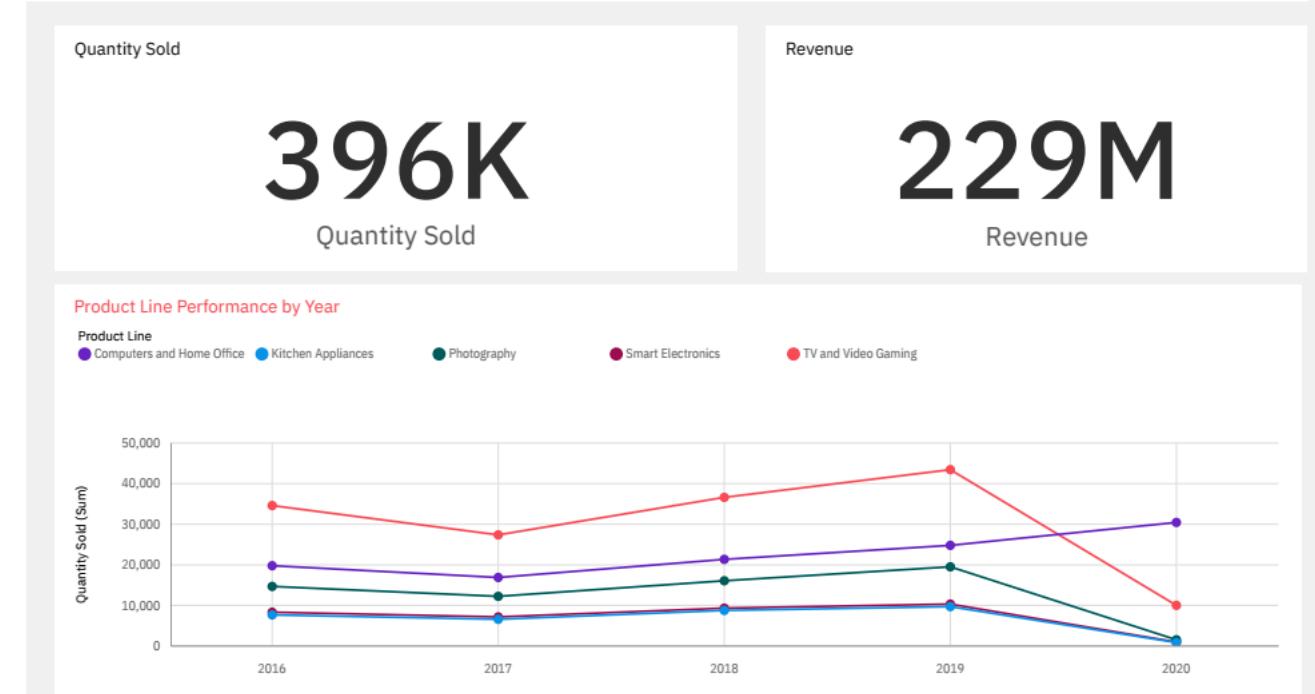
11. Rename the tab to **A - Product Sales**.



12. To save the current state of your dashboard, click the **Save** icon in the toolbar or press **CTRL+S**.

Your completed dashboard **A - Product Sales** should look similar to the image below:

## A - Product Sales



Congratulations! You have completed this lab, and you are ready for the next topic.

## Author(s)

- [Sandip Saha Joy](#)

## Other Contributor(s)

- [Steve Ryan](#)
- [Dr. Pooja](#)

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