



# Hands-on Lab: Getting Started with Google Looker Studio

**Estimated time needed:** 60 minutes

Looker Studio, from Google, is a data discovery platform available to analyze and perform data-driven functionalities. Looker is known for its data exploration, visualization, and reporting capabilities. It empowers users to seamlessly connect with diverse data sources, enabling them to build interactive dashboards and generate insightful reports, thereby facilitating a comprehensive understanding of their data.

In this lab, you will learn how to sign up for Looker Studio and learn general navigation around the Looker user interface (UI). Next, you will learn how to upload external data files to Looker through connectors and then learn how to start a new dashboard with templates. Lastly, you will learn how to create a simple dashboard.

## Dataset Used in this Lab

The dataset used in this lab 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 to use Looker Studio
- Navigate around the Looker Studio user interface
- Create a data source using a connector
- Access report themes and layouts
- Create a simple dashboard report

## Exercise 1: Sign up for Looker Studio

In this exercise, you will learn how to sign up for Google's Looker Studio

1. Go To [Looker Studio](#)

Looker Studio Overview

STEP 1

https://lookerstudio.google.com/u/0/

Getting Started

Looker Studio Overview

OVERVIEW GALLERY CONNECT TO DATA VISUALIZATIONS HOME

Looker Studio

# Your data is beautiful. Use it.

Unlock the power of your data with interactive dashboards and beautiful reports that inspire smarter business decisions. It's easy and free.

USE IT FOR FREE

STEP 2

<https://datastudio.google.com/?requirelogin=1>

2. Click **USE IT FOR FREE**.

3. A new window will open. If you already have a Google account, enter your credentials and click **Next** as shown below (number 1 and 2). Or click on **Create account** (number 3) and follow the steps.

Google

Sign in

to continue to Looker Studio

1

Email or phone

Forgot email?

Not your computer? Use a private browsing window to sign in. [Learn more](#)

2

3

Create account

Next

The screenshot shows the Looker Studio interface. At the top, there's a navigation bar with 'Create' (highlighted with a red box), 'Recent' (highlighted with a blue box), 'Reports' (highlighted with a red box), 'Data sources', and 'Explorer'. Below this is a sidebar with 'Recent' selected, showing options like 'Shared with me', 'Owned by me', 'Trash', and 'Templates'. The main area features a 'Start with a Template' section with cards for 'Blank Report' (Looker Studio), 'Tutorial Report' (Looker Studio), 'ACME' (Marketing Analytics), 'Acme Marketing' (Google Analytics), and 'Search Con' (Search Con). Below this is a table listing recent reports:

Name	Owned by anyone	Last opened by me	Loca
Untitled Report	P P	12:55 PM	
Untitled Report	P P	Aug 31, 2023	
Untitled Report	P P	Aug 31, 2023	
Untitled Report	P P	Aug 30, 2023	

## Exercise 2: Navigate around the Looker Studio User Interface

In this exercise, you will understand Looker Studio UI components which you'll use further to create visuals and dashboards.

The goal of this exercise is to introduce you to the primary components and functionalities within Looker Studio.

On the home page of Looker Studio, you can conveniently create and access all your essential assets, including reports, data sources, and explorations.

This screenshot is similar to the one above but includes numbered callouts to highlight specific UI elements:

- 1**: A red box surrounds the 'Create' button in the top navigation bar.
- 2**: A red box surrounds the 'Reports' tab in the top navigation bar.
- 3**: A red box surrounds the 'Blank Report' card in the 'Start with a Template' section.
- 4**: A red box surrounds the first column of the recent reports table.
- 5**: A red box surrounds the search bar at the top right.
- 6**: A red box surrounds the 'Recent' tab in the sidebar.
- 7**: A red box surrounds the 'Tutorial Report' card in the 'Start with a Template' section.

Let's understand the major components available on the homepage.

1. From here you can create a new asset such as a Report, a Data source or an Explorer.
2. This is where you access your recent Reports, Data sources, and Explorers.
3. With the Report tab selected, this is how you can start to create a blank report.
4. This lists any recently worked on assets. You can click the ellipsis button (...) next to an asset to perform actions on it, such as sharing, renaming, or removing it.

The screenshot shows the Looker Studio homepage with several reports listed:

- Blank Report** Looker Studio
- Tutorial Report** Looker Studio
- Acme Marketing** Google Analytics
- Report\_Car\_Sales**
- COVID\_19\_Dashboard\_practice**

A context menu is open over the second report, showing options: **Share**, **Rename**, and **Remove**. The **Remove** option is highlighted with a red box. Below the menu, there is a list of filters: **Name**, **Owned by anyone**, **Last opened by me**, and **Loca**.

5. Here you can search and find your Looker Studio assets quickly and the result will appear in the list at section 4.
6. You can choose a template from the Template Gallery to start creating an asset from.
7. Here you can take a tutorial on Looker Studio.

## Exercise 3: Create a Data Source and Use Report Editor

### Task 1: Create a data source

The first thing you need to start creating a report is to acquire some data.

To select an existing data source you would click the **Data sources** tab and your existing data sources will be listed.

The screenshot shows the Looker Studio interface with the **Data sources** tab selected (highlighted with a red box). The page includes a search bar, a sidebar with filters (Recent, Shared with me, Owned by me, Trash, Templates), and a main area for managing data sources.

Key elements in the main area:

- Create** button (highlighted with a red box)
- Recent** tab
- Data sources** tab (highlighted with a red box)
- Explorer** tab
- Name**, **Owned by anyone**, **Last opened by me**, and **Loca** filters
- A large button labeled **Create a Data Source.** with the sub-instruction Use the Create button to add one.

However, for this lab, you will create a new data source.

1. In the top left corner, click **Create**, then select **Data source**.

**Looker Studio**

Search Looker Studio

**Create**

**Data source**

**Report**

**Explorer BETA**

**Trash**

**Templates**

Crea

The new window that opens displays a lot of options for connecting to your data; these are called *Connectors*. A connector links Looker Studio to your data. Connecting to your data creates a data source within Looker Studio. Looker Studio provides a variety of connectors to connect to different kinds of data to create reports.

You can use the search field to look for the relevant data connector.

Google Connectors (23)

Connector's built and supported by Looker Studio [Learn more](#)

- Looker** By Google Connect to your Looker semantic models.
- Google Analytics** By Google Connect to Google Analytics.
- Google Ads** By Google Connect to Google Ads performance report data.
- Google Sheets** By Google Connect to Google Sheets.
- BigQuery** By Google Connect to BigQuery tables and custom queries.
- AppSheet** By Google Connect to AppSheet app data.
- File Upload** By Google Connect to Google Sheets.
- Amazon Redshift** By Google Connect to Amazon Redshift.
- Campaign Manager 360** By Google Connect to Google Ads.

Partner Connectors (839)

Connector's built and supported by Looker Studio partners. [Learn more](#)

- Build Your Own** By Google Build your own connectors.
- Facebook Ads** By Supermetrics #1 connector for Facebook Ads. Free 14 day trial. Trusted by 700k+ marketers.
- Rubii** By Rubii Once you set up a custom report in Rubii, your reports will be available to select in the drop down below.
- Digital Optpur: Kobler Data** By Digital Optpur AS
- Line Ads** By Supermetrics
- Streamlike Analytics** By Mediatech

For this lab, you will work on [CustomerLoyaltyProgram.csv](#), which you need to download to your computer first.

You will use the **File Upload** connector to upload the data to Looker Studio to create the data source.

2. In the **Search** box, type *file upload*, then click on the **File Upload** connector.

The screenshot shows the 'Google Connectors (1 of 23)' page. A red arrow points to the search bar at the top, which contains the text 'file upload'. Below the search bar, the 'File Upload' connector is listed under 'File Upload' by Google. It is described as connecting to CSV files. A red box highlights the entire connector card.

### Partner Connectors (0 of 839)

Connectors built and supported by Looker Studio partners. [Learn more](#)

3. Click the **CLICK TO UPLOAD FILES** button, select the *CustomerLoyaltyProgram.csv* file and click **Open**.

The screenshot shows the 'File Upload' dialog box. A red box highlights the 'CustomerLoyaltyProgram.csv' file in the list. A red arrow labeled '2' points to the 'Open' button at the bottom of the dialog. To the right of the dialog, there is a large 'Upload' icon with the number '1' above it. Below the dialog, there is a text field for dragging files and a 'CLICK TO UPLOAD FILES' button, also highlighted with a red box and labeled '1'.

4. Once the data is uploaded, click **CONNECT**.

[SELECT CONNECTOR](#)[FILE UPLOAD](#)

By Google

You can bring data into Looker Studio from almost any source by uploading CSV (comma-separated values) files. File upload lets you report on data not supported by a specific connector.

[LEARN MORE](#) [REPORT AN ISSUE](#)

Data Sets	
CustomerLoyaltyProgram.csv	
AU_Sales_By_Model.xlsx	
CustomerLoyaltyProgram.csv	
CustomerLoyaltyProgram.csv	

## CustomerLoyaltyProgram.csv

TOTAL FILE SIZE	NUMBER OF FILES	CREATION DATE	LAST MODIFIED
17 MB (18% of 100MB used)	1	9/17/23 4:58 PM	9/17/23 4:58 PM

[ADD FILES](#)Files must contain the same schema. [Learn More](#)

File name	Uploaded at	Size	Status
CustomerLoyaltyProgram.csv	9/17/23 4:58 PM	17 MB	

Here you can see the contents of the uploaded data source. On this page you can verify or modify the data type of each data attribute, modify the default aggregation, include the description for fields, and add new fields and parameters as well.

5. To start creating the report, click **CREATE REPORT**.

CustomerLoyaltyProgram.csv Click here

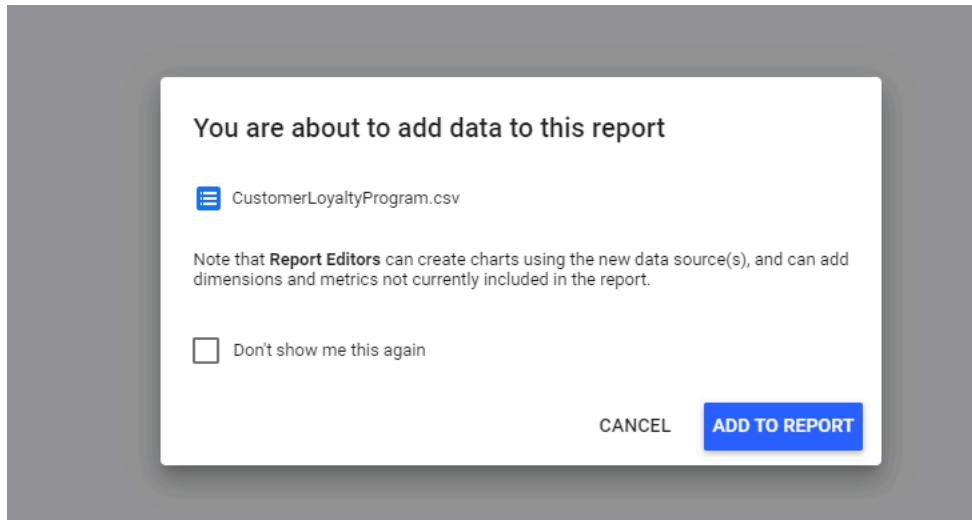
Scope: Reusable | Data credentials: P P | Data freshness: 12 hours | Community visualizations access: On | Field editing in reports: On

[EDIT CONNECTION](#) | [FILTER BY EMAIL](#)

Field	Type	Default Aggregation	Description	4  ADD A FIELD
DIMENSIONS (28)	1	2	3	1.1
City	RBC Text	None		
Count	123 Number	Sum		
Country	RBC Country	None		
Coupon Response	RBC Text	None		
Customer Lifetime Value	123 Number	Sum		
Customer Name	RBC Text	None		
Education	RBC Text	None		
First Name	RBC Text	None		
Gender	RBC Text	None		
Income	123 Number	Sum		
Last Name	RBC Text	None		
Latitude	123 Number	Sum		

REFRESH FIELDS

6. In the pop-up dialog box, click **ADD TO REPORT**.



The **Report Editor** tool will open.

	First Name	Record Count
1.	Paris	51
2.	Norman	49
3.	Sydney	47
4.	Daryl	47
5.	Jamay	47
6.	Loren	45
7.	Leon	46
8.	Casey	44
9.	Wade	44

By default, the summary table will appear as per the data source.

7. Select the table visualization and delete it.
8. Click the existing report title (*Untitled Report*) and rename the report to *Simple Dashboard*.
9. To give yourself more screen space and expand the canvas window, you can close the **Data** and **Properties** panes on the right side of the page.

The screenshot shows the Report Editor interface with a title bar "Simple Dashboard". The main area is a blank canvas with a toolbar above it containing icons for back, forward, search, and various report components like "Add page", "Add data", "Add a chart", "Add a control", and "Format". To the right is a sidebar titled "Data Panel" with a search bar and a list of data sources:

- ABC City
- 123 Cou
- RBC Cou
- 123 Cus
- RBC Cus
- RBC Edu
- RBC Firs
- RBC Gen
- 123 Inco
- RBC Las
- 123 Lati
- RBC Loc
- 123 Lon
- 123 Loy
- + Add
- + Add
- + Add

A "Let's get started" message with instructions: "Drag a field from the Data Panel to the canvas to add a new chart or select a component on the report canvas to edit it."

NOTE: To work on data in Excel format, upload the .xls file to your computer, and use the 'Google Sheets' connector to create the data source.

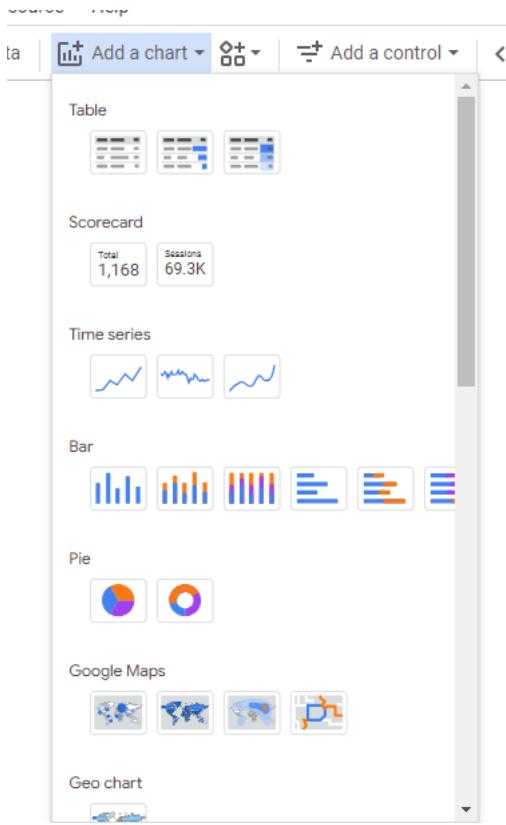
## Task 2: Use Report Editor

Let's see what tools are available in the Report Editor.

The screenshot shows the Report Editor interface with a title bar "Simple Dashboard". The main area is a blank canvas with a toolbar above it containing icons for back, forward, search, and various report components like "Add page", "Add data", "Add a chart", "Add a control", and "Format". Red numbers are overlaid on the interface to point to specific features:

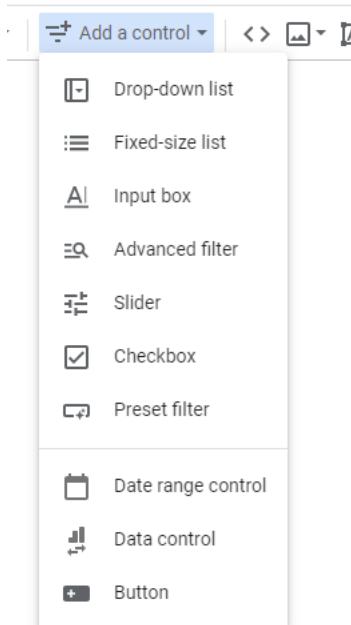
- 9: Points to the "File" menu icon.
- 8: Points to the "Edit" menu icon.
- 7: Points to the "View" menu icon.
- 2: Points to the "Insert" menu icon.
- 1: Points to the "Page" menu icon.
- 10: Points to the "Arrange" menu icon.
- 3: Points to the "Resource" menu icon.
- 4: Points to the "Help" menu icon.
- 5: Points to the "Reset" button in the top right.
- 6: Points to the "Share" button in the top right.

- To add a new chart, click **Add a chart**. Looker Studio provides a variety of charts to be used for creating visualizations such as tables, scorecards, time series charts, bar charts, line charts, pie charts, and maps to name but a few.



2. Scroll down to see all the options. To include data, click **Add data**, then close the **Add data to report** window.

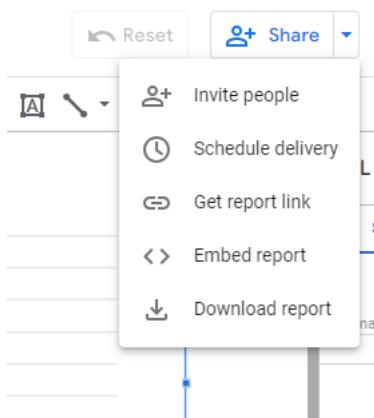
3. Click **Add a control**. Controls are used to make your visuals interactive. Looker Studio provides several control options including sliders, filters, checklists, drop-down lists, and buttons.



Controls enable you to adjust the data shown in report components by filtering or modifying it. They serve as a means to collect user input and incorporate it into calculated fields.

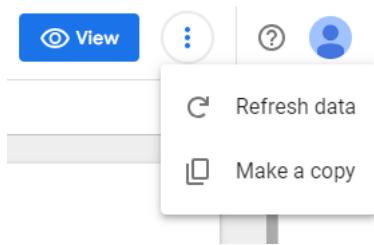
4. Use the icons to the right of **Add a control** to insert components other than charts and controls to your dashboard or report. These include URLs, images, textboxes, and lines and shapes. To access the **Theme and layout** option, if it is hidden, click the ellipsis button (vertical three dots).

5. The **Share** button lets you share your report with others.



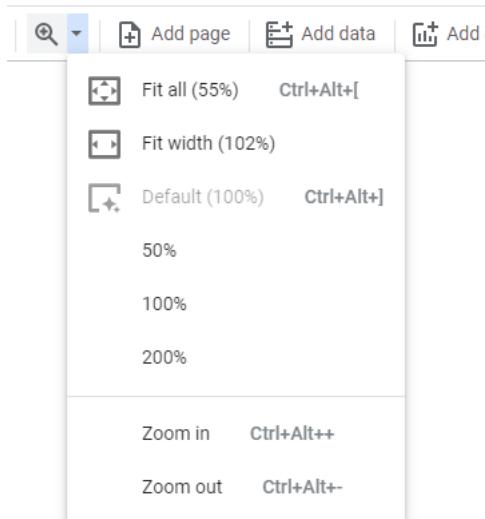
You can invite your colleagues to work on your dashboard with you, you can also get the link or embedded code, and you can download the report. You also have the option to schedule the delivery time of your report.

6. If you prefer not to make edits to the report and simply want to see how it appears in read-only mode, click **View**. You can click **Pause updates** to pause the data updates for the live data, if used, and you can refresh or make a copy of the data by clicking on the ellipsis button (three vertical dots) here.



7. Click **Add page** to add more pages to your report. You can easily switch amongst pages using the left navigation bar or the arrows in the toolbar.

8. Looker Studio provides several options to zoom in and out, such as **Fit all**, **Fit width**, and various percentage values.

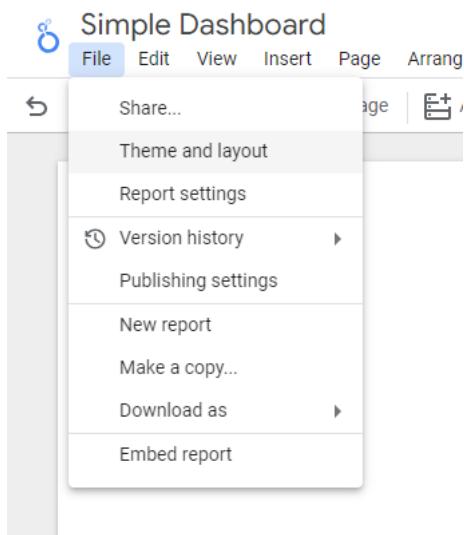


9. Use the **Undo** and **Redo** buttons to fix mistakes or misclicks.
10. The main work area at position 10 is the **canvas** where you add and layout all your visualizations.

## Exercise 4: Access Report Themes and Layouts

Unlike Cognos Analytics, Looker Studio gives you the flexibility to place the visuals where you like to while you prepare the report or dashboard. So you don't have to select a fixed dashboard template, as you do in Cognos Analytics. However, Looker Studio does have some inbuilt themes with different color and font combinations for you to choose from.

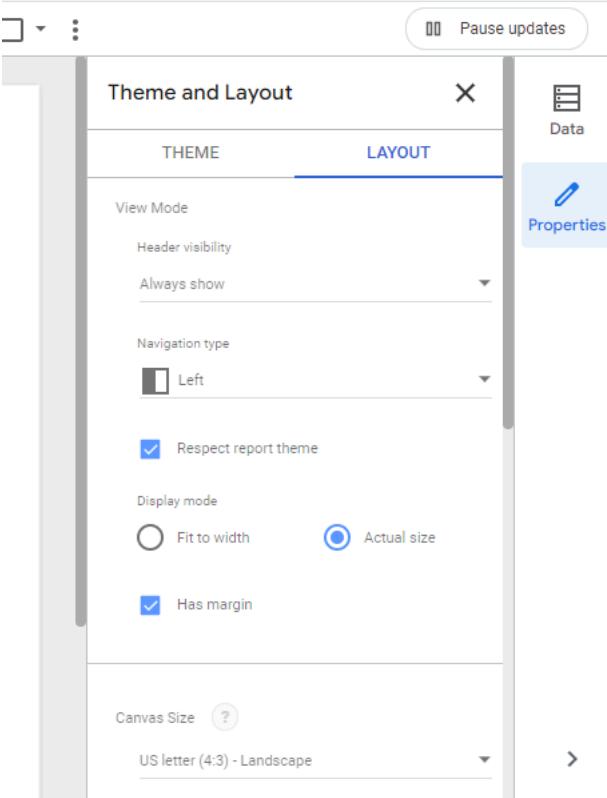
1. To access the **Theme and layout** menu, either click **File** in the main menu, then click **Theme and layout**, or in the toolbar, click **Theme and layout**. If it's hidden, click the ellipsis button (...) to show it.



2. Use the **THEME** tab to modify the default theme or select one of the predefined themes for your report.

A screenshot of the Looker Studio interface with the 'Theme and Layout' panel open on the right. The main canvas area is empty. The toolbar at the top includes icons for back, forward, search, and various data and chart addition tools. The right sidebar has tabs for 'Theme and Layout' (which is active) and 'Layout'. Under 'Theme and Layout', the 'THEME' tab is selected, showing the 'Current Theme' as 'Default'. Below this, there are two preview cards: one for 'Default' (text in a light blue box) and one for 'Edge' (text in a black box). At the bottom of the sidebar, there's a partially visible 'Extract ther' button.

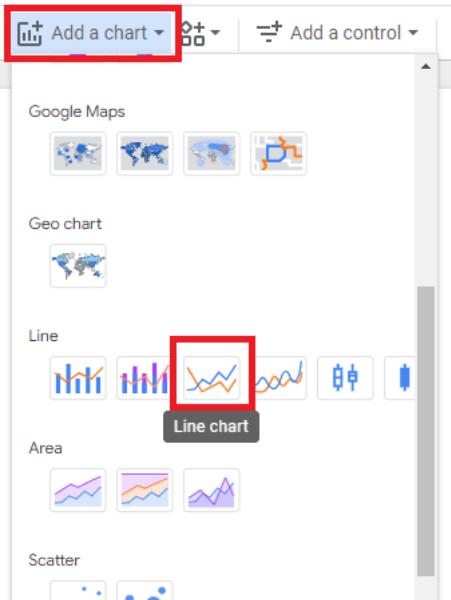
3. Use the **LAYOUT** tab to change the layout of your canvas, such as the type of navigation, canvas size, and grid settings.



## Exercise 5: Create a Simple Dashboard Report

Let's create a simple dashboard on **Product Line Performance by Year**

1. Click **Add a chart** and select the simple **Line chart**.



2. Click on the canvas where you want it to be positioned. You can move it anywhere on the canvas later by simply clicking and dragging it to a new position. Looker Studio automatically includes data to create the chart based on the data source.

For your *Product Line Performance by Year* visualization, you place the data as you want it to be displayed. The requirement is to create a line chart for the quantity sold per order year and have separate lines displayed for each product line.

The screenshot shows the Power BI setup pane. At the top, there's a 'Chart' icon and a 'Pause updates' button. Below that, the 'SETUP' tab is selected. The 'Data source' section shows 'CustomerLoyaltyProgram.csv' is chosen. In the 'Dimension' section, 'Order Year' is highlighted with a green bar. In the 'Metric' section, 'Quantity Sold' is selected with a blue bar. There are also sections for 'Optional metrics' and 'Metric sliders'.

3. Click on the line chart in the canvas, and then click **Properties**.
4. Click **Data** to open that pane on the right too.
5. From the data pane, drag **Order Year** to the **Dimension** field to replace **First Name**.

The screenshot shows the Power BI setup pane with a red arrow pointing to the 'Order Year' item in the Dimension list. The 'Data' pane on the right lists various fields from 'CustomerLoyaltyProgram.csv', including Income, Last Name, Latitude, Location Code, Longitude, Loyalty Count, Loyalty#, LoyaltyStatus, Marital Status, MonthsAsMember, Order Year, Postal code, Product Line, and Province or State. The 'Order Year' item is highlighted with a green bar.

6. From the data pane, drag **Quantity Sold** to the **Metric** field. Remove the **Record Count** item.

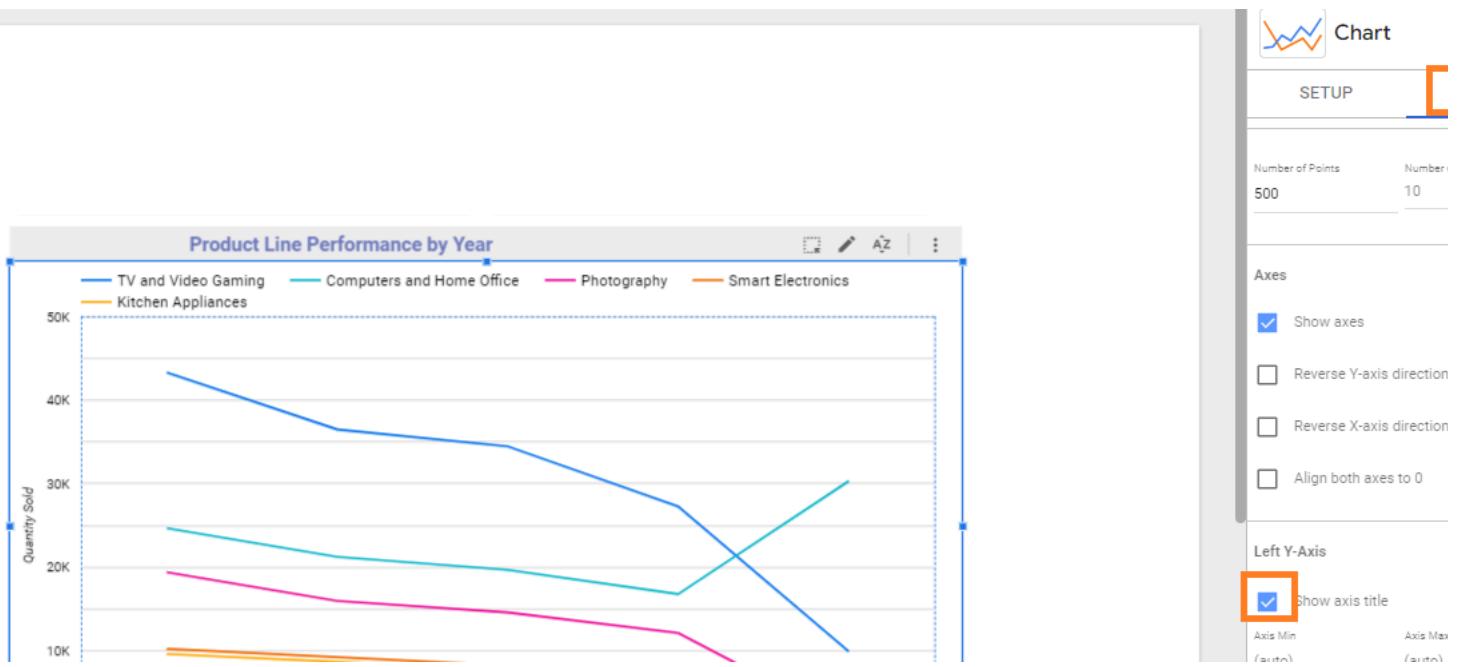
The screenshot shows the Power BI Data pane with the 'CustomerLoyaltyProgram.csv' file loaded. In the 'Metric' section, 'Quantity Sold' is selected under the 'SUM' metric type. A red box highlights this selection.

You want to break down the chart by product line, so that it can display a separate line for each product category.

7. From the data pane, drag **Product Line** to the **Breakdown dimension** field.

The screenshot shows the Power BI Data pane. A red arrow points from the 'Product Line' field in the Dimension list to the 'Breakdown dimension' field in the SETUP tab. Another red arrow points from the 'Product Line' field in the Dimension list up towards the 'Breakdown dimension' field.

8. To include the x and y axis labels, click the **STYLE** tab in the chart's **Properties** pane, and check the box for **Show axis title** in both the **Left Y-axis** and the **X-axis** sections.



9. Hover over the bottom right corner of the chart till you see the white double-headed arrow, then click and drag to make the chart larger.
10. In the main toolbar, select the **Text** tool and click above the visualization to insert a text box for the chart title. Click in the text box and type the title as *Product Line Performance by Year*.
11. Select the text in the new title and use the **Text Properties** in the right pane to style the text as **24pt, bold, and dark blue**.
12. Drag the text box to align it with the center of the line chart visualization, and drag the chart and the title boxes down the page a bit to make some room at the top for the next visualization.

Simple Dashboard

File Edit View Insert Page Arrange Resource Help

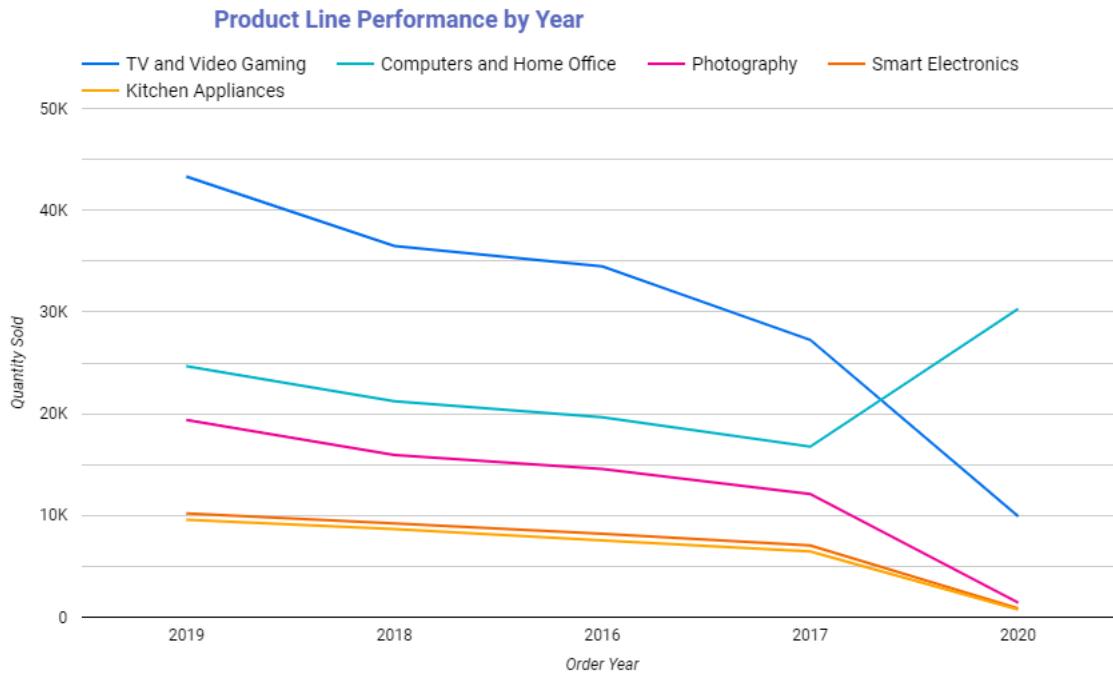
Reset Share

Add page Add data Add a chart Add a control Theme and layout

**A**

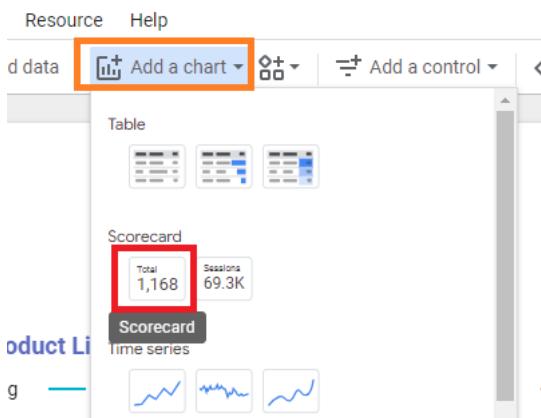
Text Pr  
Font and Da  
A Roboto  
B  
U  
E  
Overflow se

Your line chart should now look similar to the image below.



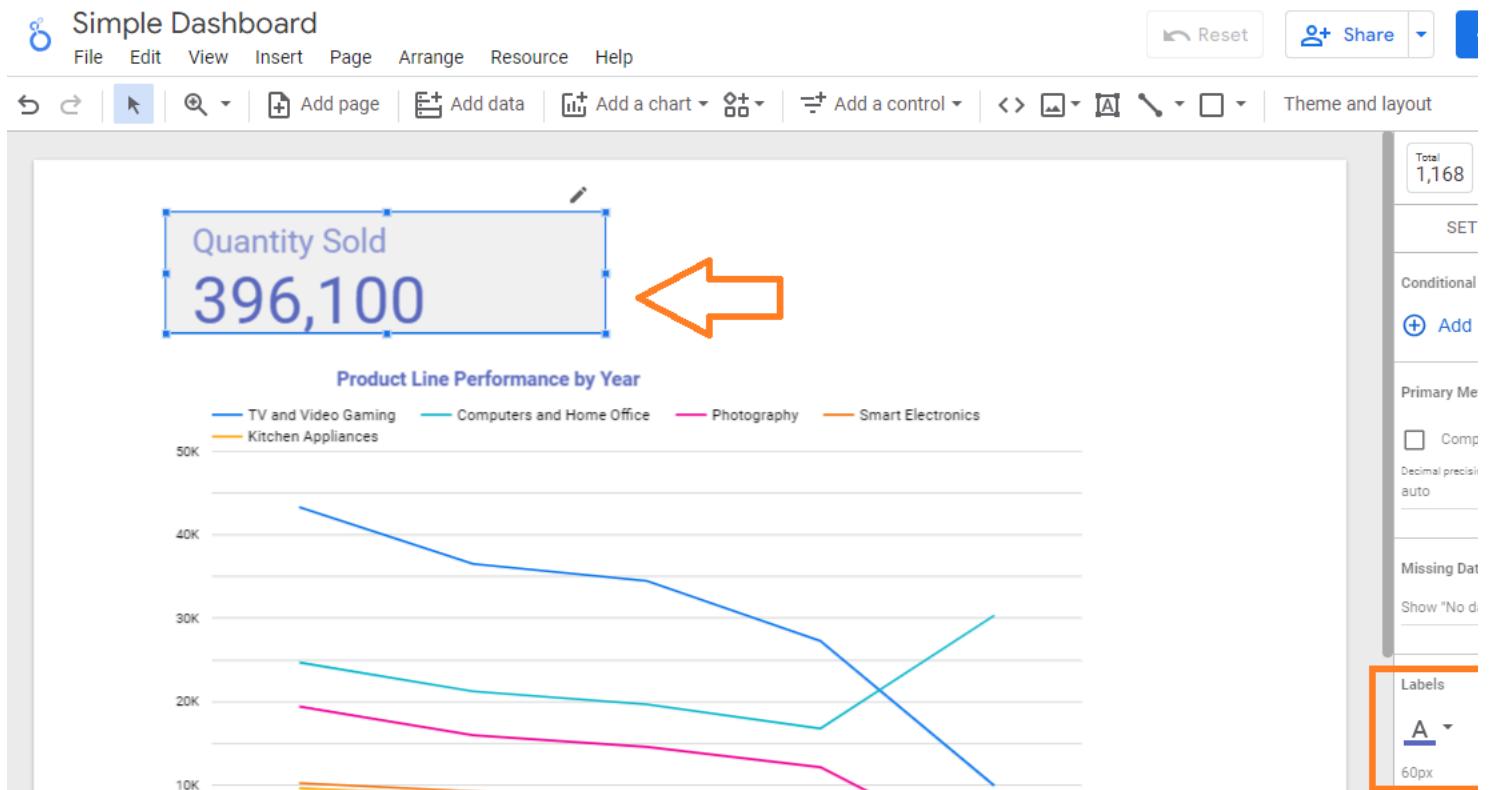
Now you will include two scorecards to display the *Total Quantity Sold* and *Revenue* above this line chart.

13. In the toolbar, click **Add a chart**, and select **Scorecard**.
14. Move it above the line chart visualization and to the left side of the canvas.



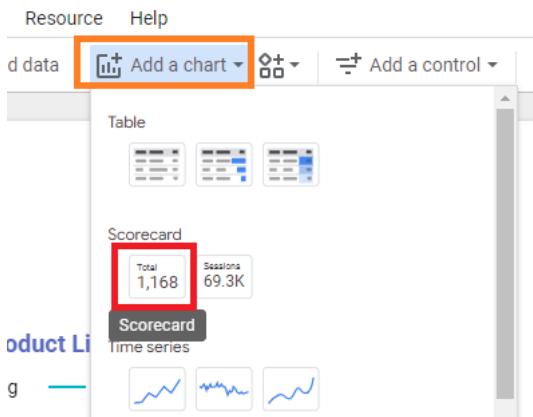
Looker Studio will automatically pick **Quantity Sold** to be displayed on this scorecard.

15. You can change the size and position as you like.
16. Use the **STYLE** tab in the scorecard chart's **Properties** pane to change the font size and color to **48pt** and **dark blue**.



Now you will add the second scorecard chart above the line chart.

17. In the toolbar, click **Add a chart**, and select **Scorecard**.



18. Place it to the right of the **Quantity Sold** scorecard chart.

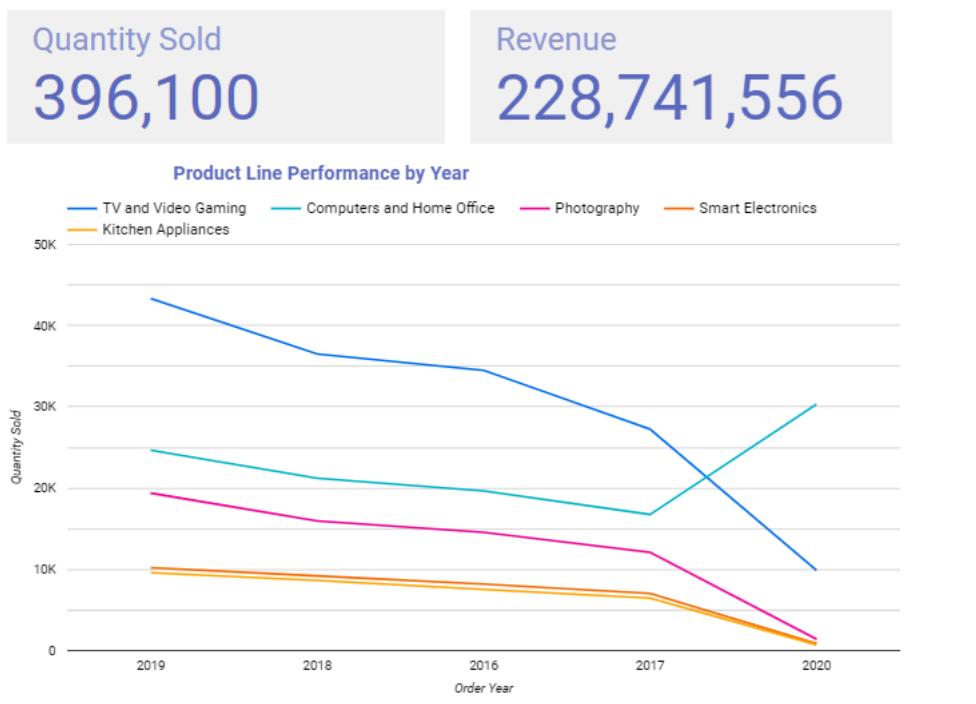
The screenshot shows a Looker Studio dashboard titled "Simple Dashboard". On the left, there's a large blue scorecard box with the title "Quantity Sold" and the value "396,100". To its right is a line chart titled "Product Line Performance by Year" showing sales over five years. The chart includes five data series: TV and Video Gaming (blue), Computers and Home Office (teal), Photography (pink), Smart Electronics (orange), and Kitchen Appliances (yellow). The Y-axis represents "Quantity Sold" from 0 to 50K. A callout box highlights the "Record Count" metric in the chart's properties pane, which is set to "84,436". On the far right, the "SETUP" tab of the Properties pane is selected, showing fields for "Data source", "Date Range D", "Metric", and "Options". An orange arrow points from the "Metric" field to the "Scorecard" section of the Properties pane.

This time Looker Studio has picked **Record Count** to create this scorecard.

Let's change the metric to show *Revenue* instead.

19. Select the **SETUP** tab in the scorecard chart's **Properties** pane.
20. From the **Data** pane, drag **Revenue** to the **Metric** field to replace **Record Count**.
21. Use the **STYLE** tab in the scorecard chart's **Properties** pane to change the font size and color to **48pt** and **dark blue** as you did for the previous scorecard chart.

**The final version of your first dashboard should appear similar to the image below.**



**Congratulations! You have completed this hands-on lab and you are now ready for the next topic.**

For more help, you can refer to the [Tutorial on Looker Studio by Google](#)

**Author(s)**

[Dr. Pooja](#)