



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](#)

A screenshot of a web browser showing the Looker Studio Overview page. The URL in the address bar is highlighted with a red box and labeled "STEP 1": https://lookerstudio.google.com/u/0/. The page itself shows a dark background image of two people looking at a screen, with the text "Looker Studio" and "Your data is beautiful. Use it." prominently displayed. A blue button labeled "USE IT FOR FREE" is at the bottom left, and another red box labeled "STEP 2" is placed over it. The URL "https://datastudio.google.com/?requirelogin=1" is visible at the bottom of the page.

STEP 1

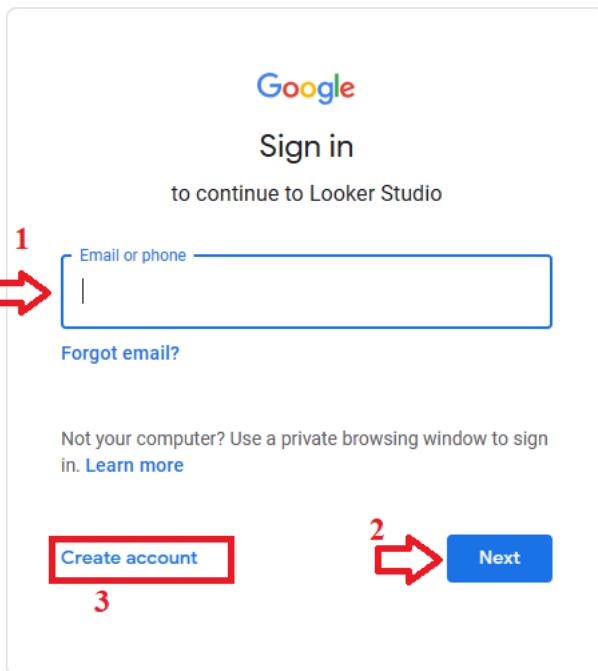
https://lookerstudio.google.com/u/0/

STEP 2

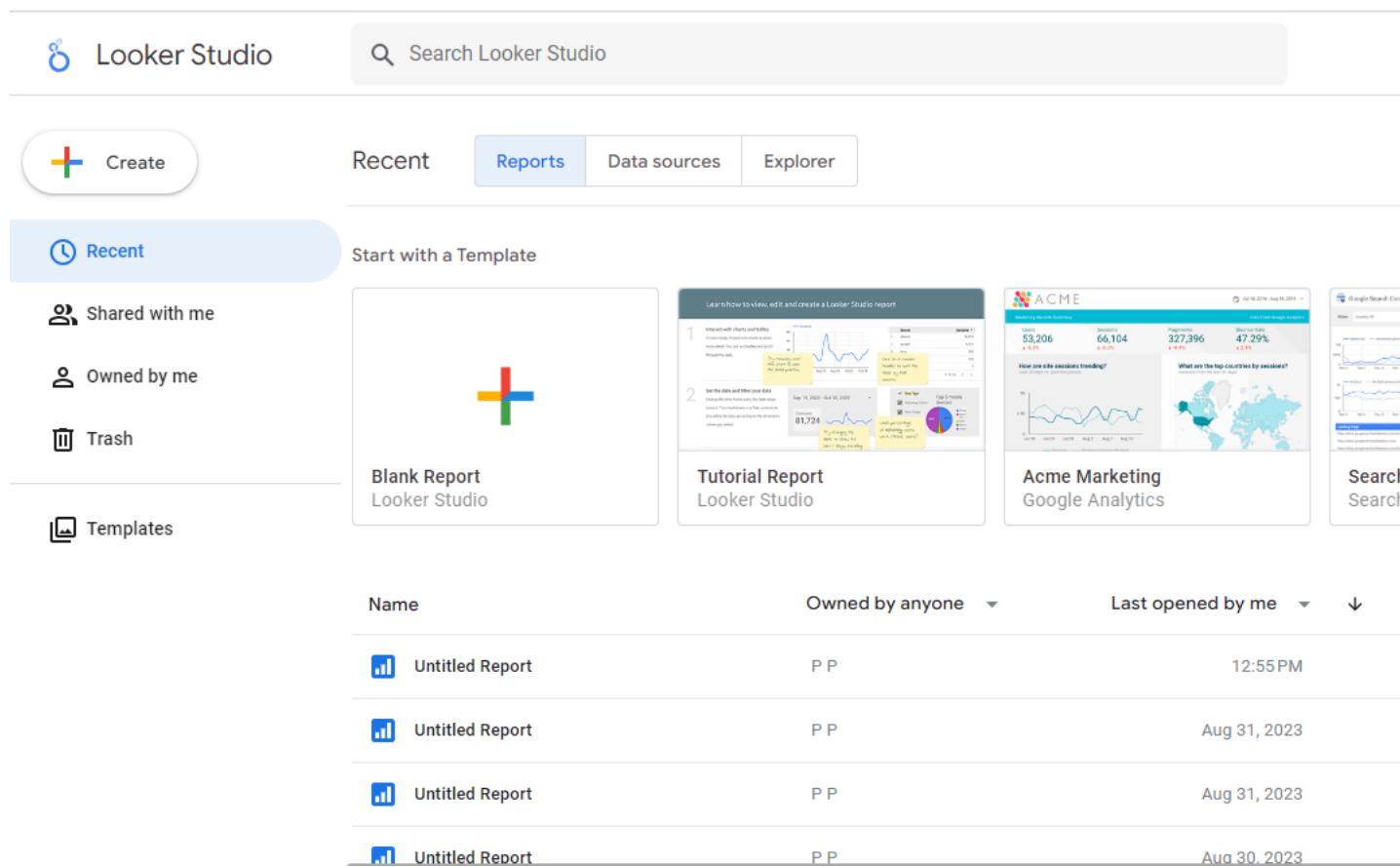
https://datastudio.google.com/?requirelogin=1

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.



The image shows the Google Sign-in page for Looker Studio. At the top, it says "Sign in" and "to continue to Looker Studio". Below that is a text input field labeled "Email or phone" with a red arrow pointing to it and the number "1" above it. Below the input field is a "Forgot email?" link. To the right of the input field is a "Create account" button with a red box around it and the number "3" below it. To the right of that is a blue "Next" button with a red arrow pointing to it and the number "2" above it.



The image shows the Looker Studio home page. At the top, there's a navigation bar with "Looker Studio" and a search bar. Below that is a toolbar with "Create", "Recent", "Reports" (which is selected), "Data sources", and "Explorer". On the left, there's a sidebar with "Recent" (selected), "Shared with me", "Owned by me", "Trash", and "Templates". The main area shows a "Blank Report Looker Studio" template and several published reports: "Tutorial Report Looker Studio", "Acme Marketing Google Analytics", and "Search Search". Below these is a table of recent reports:

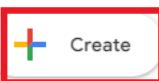
Name	Owned by anyone	Last opened by me
Untitled Report	P P	12:55PM
Untitled Report	P P	Aug 31, 2023
Untitled Report	P P	Aug 31, 2023
Untitled Report	P P	Aug 30, 2023

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.



1

Recent

Reports

Data sources

Explorer

2

Recent

Start with a Template

Shared with me

Owned by me

Trash

Templates

Blank Report
Looker Studio

3

Tutorial Report
Looker Studio

7

Learn how to view, edit and create a Looker Studio report

Acme Marketing
Google AnalyticsSearch
Search

Name	Owned by anyone	Last opened by me	L
Report_Car_Sales		Aug 30, 2023	
COVID_19_Dashboard_practice		Aug 30, 2023	
BU COVID-19 Report		Aug 29, 2023	

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

- From here you can create a new asset such as a Report, a Data source or an Explorer.
- This is where you access your recent Reports, Data sources, and Explorers.
- With the Report tab selected, this is how you can start to create a blank report.
- 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.

Blank Report
Looker Studio

Tutorial Report
Looker Studio

Acme Marketing
Google Analytics

Search Con Search Con

Name	Owned by anyone	Last opened by me	L
Report_Car_Sales	P P	Aug 30, 2023	
COVID_19_Dashboard_practice	P P	Aug 30, 2023	

- Here you can search and find your Looker Studio assets quickly and the result will appear in the list at section 4.
- You can choose a template from the Template Gallery to start creating an asset from.
- 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. At the top, there is a navigation bar with tabs: Recent, Reports, Data sources (which is highlighted with a red box and has a red number '1' below it), and Explorer. Below the navigation bar is a search bar labeled "Search Looker Studio". On the left side, there is a sidebar with a "Create" button (also highlighted with a red box and has a red number '2' below it), a "Recent" tab (which is active and highlighted with a blue background), and other options like "Shared with me", "Owned by me", "Trash", and "Templates". To the right of the sidebar, there is a large icon of a database or data source. The main area is titled "Create a Data Source." and contains the text "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**.

The screenshot shows the "Create" dropdown menu in Looker Studio. The "Data source" option is highlighted with a red box. Other options in the menu include "Report", "Explorer (BETA)", and "Trash". The main interface above the dropdown shows the "Data sources" tab selected, and the main area is titled "Create a Data Source.".

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.

Search

Google Connectors (23)

Connectors 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 CSV (comma-separated values) files.



Amazon Redshift

By Google

Connect to Amazon Redshift.



Campaign Manager 360

By Google

Connect to Campaign Manager 360.

Partner Connectors (839)

Connectors 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 Opptur: Kobler Data

By Digital Opptur 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.

 Search
 file upload

Google Connectors (1 of 23)

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



File Upload

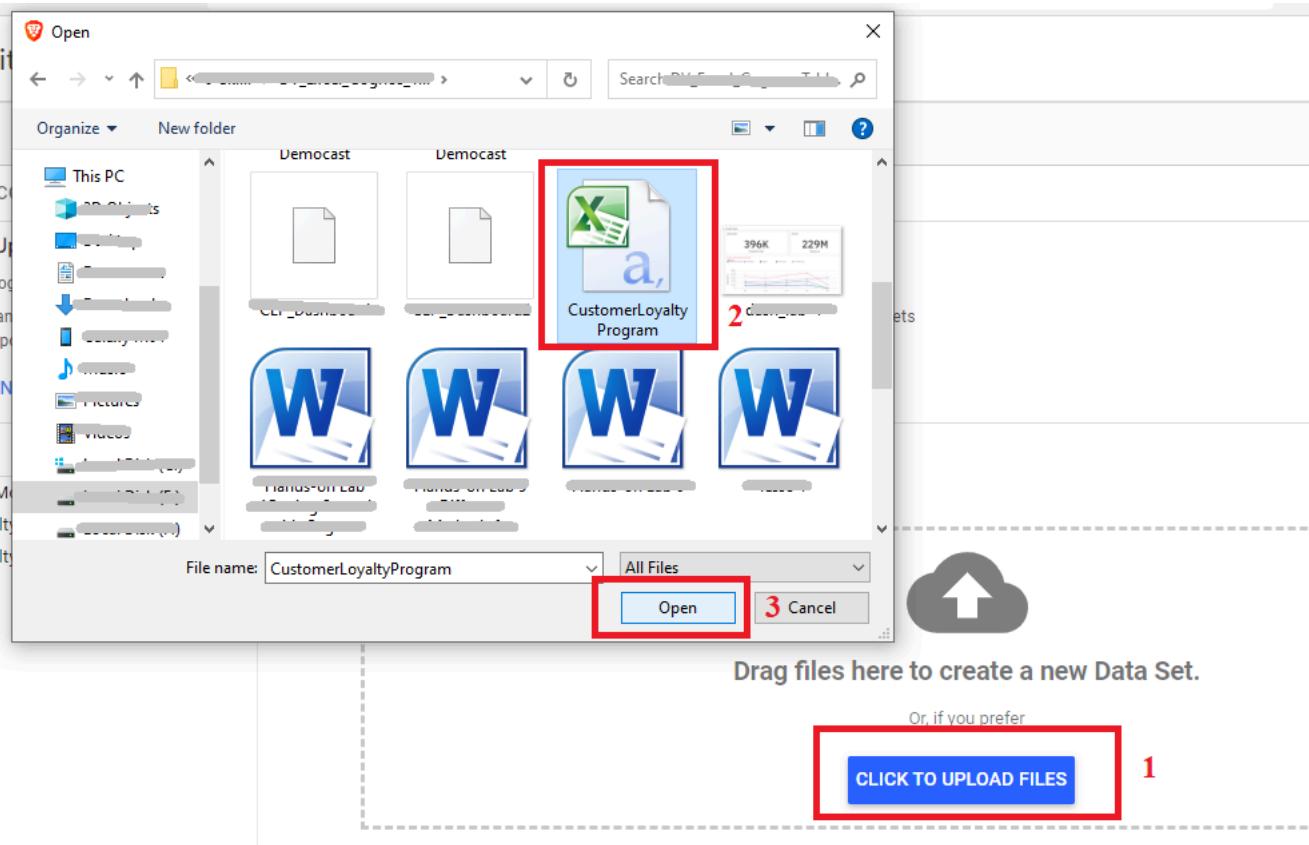
By Google

Connect to CSV (comma-separated values) files.

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**.



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
	CustomerLoyaltyProgram.csv
	AU_Sales_By_Model.xlsx
	CustomerLoyaltyProgram.csv
	CustomerLoyaltyProgram.csv

CustomerLoyaltyProgram.csv

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

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

File name	Uploaded at	Size
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:

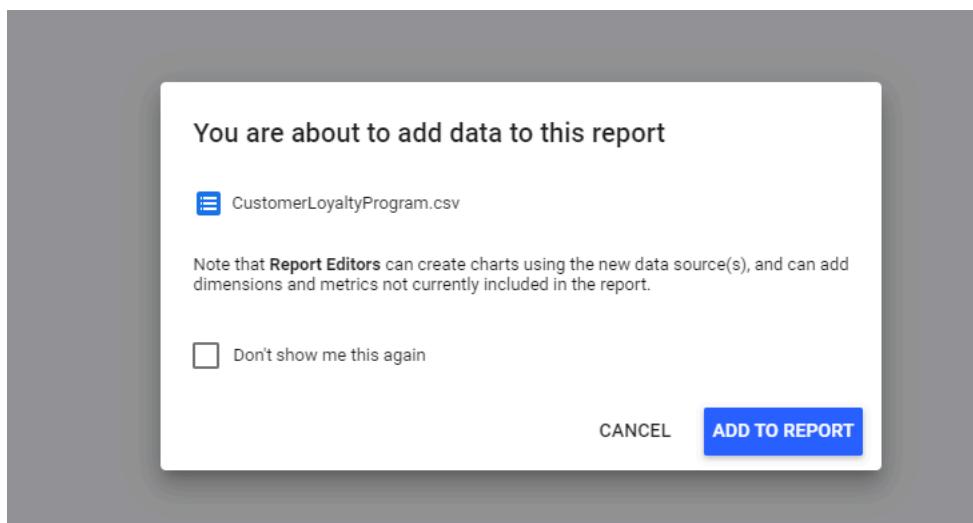
[EDIT CONNECTION](#) | [FILTER BY EMAIL](#)

4 + AD

Field	Type	Default Aggregation	Description
City	Text	None	
Count	Number	Sum	
Country	Country	None	
Coupon Response	Text	None	
Customer Lifetime Value	Number	Sum	
Customer Name	Text	None	
Education	Text	None	
First Name	Text	None	
Gender	Text	None	
Income	Number	Sum	
Last Name	Text	None	
Latitude	Number	Sum	

[REFRESH FIELDS](#)

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



The **Report Editor** tool will open.

Untitled Report

File Edit View Insert Page Arrange Resource Help

Reset Share

Add page Add data Add a chart Add a control

The screenshot shows the Report Editor interface. On the left, there is a summary table visualization with columns 'First Name' and 'Record Count'. The table lists names from 1 to 8, with record counts ranging from 44 to 51. On the right, there is a properties panel titled 'Chart' with tabs for 'SETUP' and 'STYLE'. Under 'SETUP', the 'Data source' is set to 'CustomerLoyaltyProgram.csv'. Other sections include 'BLEND DATA', 'Date Range Dimension', 'Dimension' (with 'First Name' selected), 'Drill down' (disabled), 'Metric' (with 'Record Count' selected), and 'Optional metrics'.

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.

Simple Dashboard

File Edit View Insert Page Arrange Resource Help

Reset Share

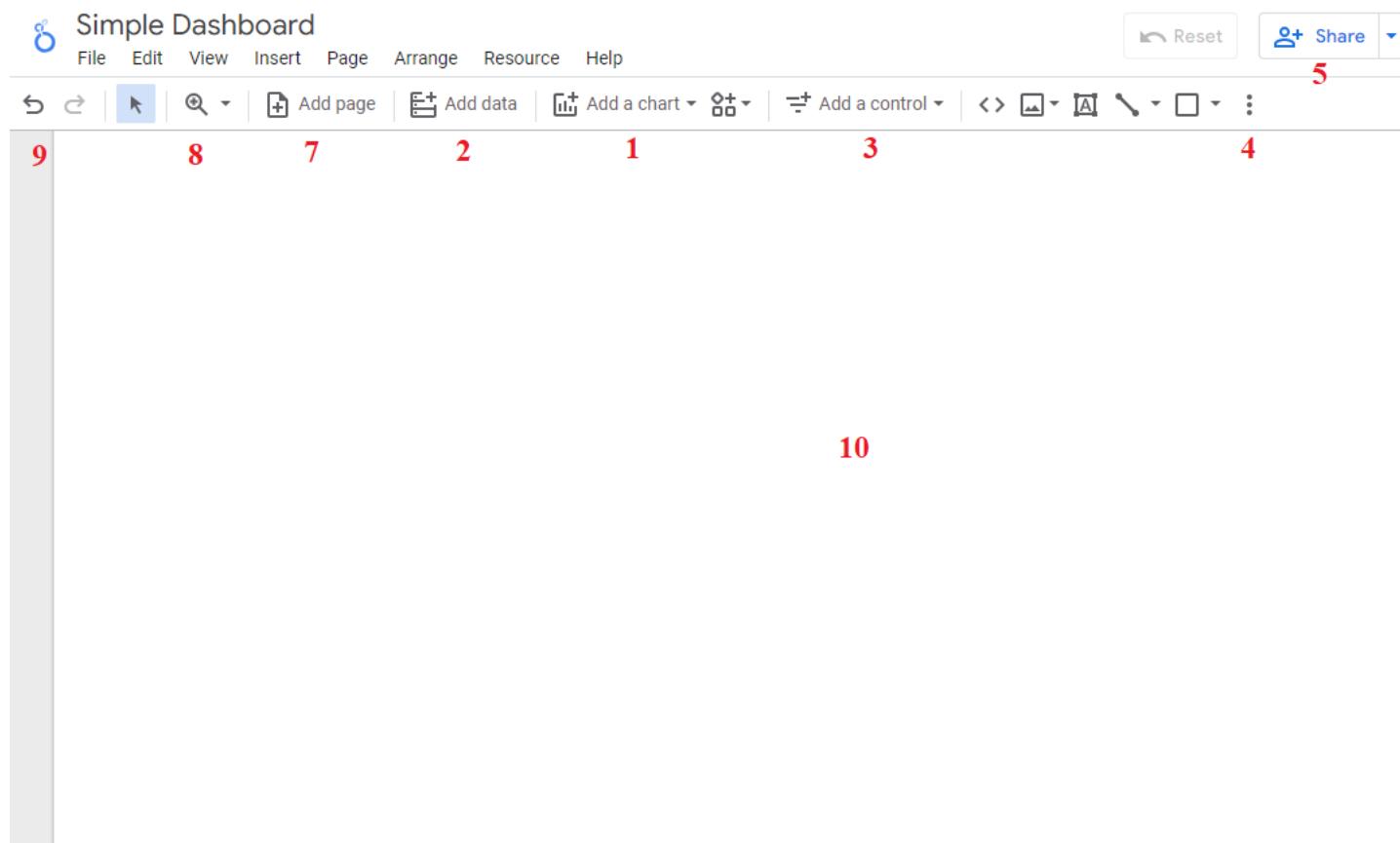
Add page Add data Add a chart Add a control

The screenshot shows the Report Editor with a blank canvas. A message 'Let's get started' is displayed, along 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.' The right side of the screen has a vertical toolbar with various icons for different report components.

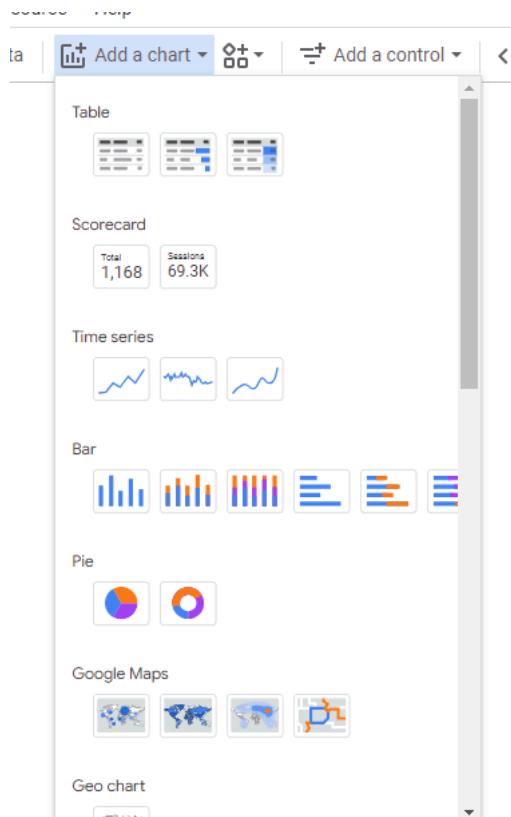
NOTE: To work on data in Excel format, upload the .xls file to your computer, and use the 'Google Sheets' connector to create the data source.

Task 2: Use Report Editor

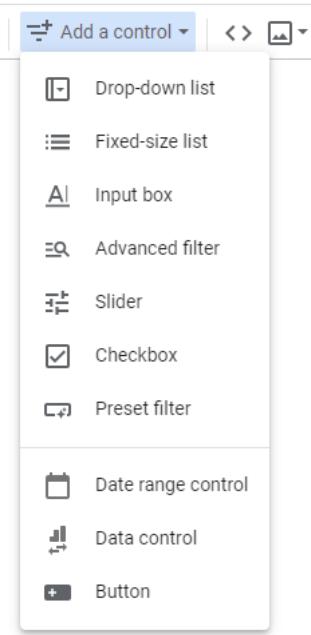
Let's see what tools are available in the Report Editor.



1. 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.

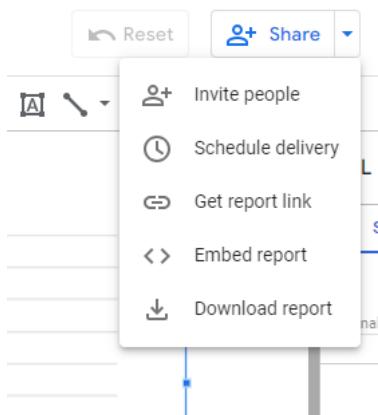


2. Scroll down to see all the options. To include data, click **Add data**, then close the **Add data to report** window.
3. Click **Add a control**. Controls are used to make your visuals interactive. Looker Studio provides several control options including sliders, filters, checklists, drop-down lists, and buttons.



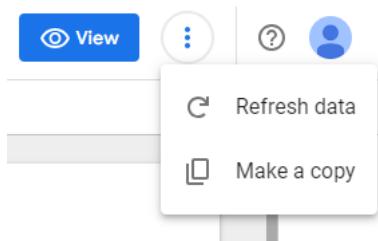
Controls enable you to adjust the data shown in report components by filtering or modifying it. They serve as a means to collect user input and incorporate it into calculated fields.

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.

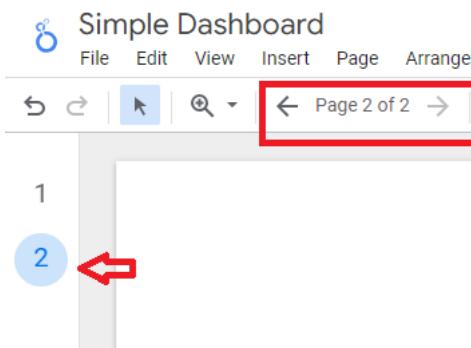


You can invite your colleagues to work on your dashboard with you, you can also get the link or embedded code, and you can download the report. You also have the option to schedule the delivery time of your report.

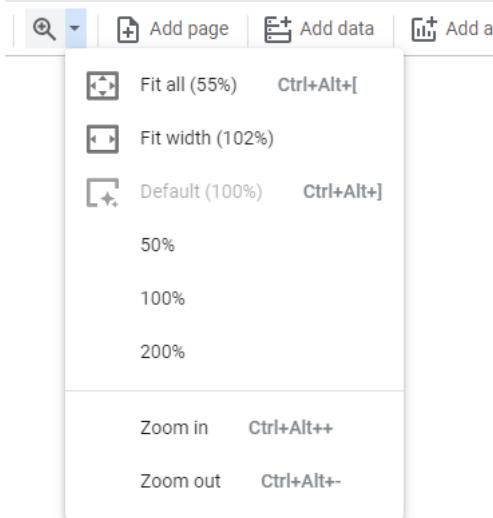
6. If you prefer not to make edits to the report and simply want to see how it appears in read-only mode, click **View**. You can click **Pause updates** to pause the data updates for the live data, if used, and you can refresh or make a copy of the data by clicking on the ellipsis button (three vertical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



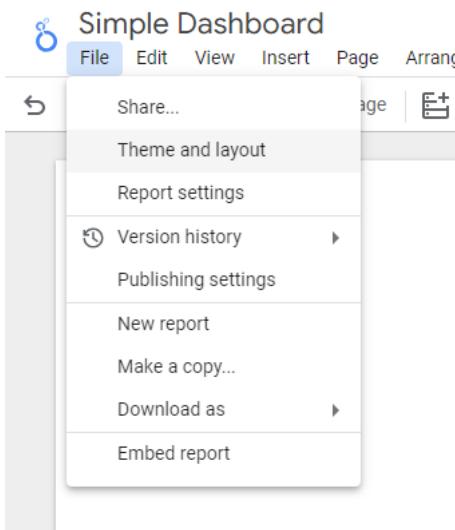
9. Use the **Undo** and **Redo** buttons to fix mistakes or misclicks.

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 elipsis button (...) to show it.



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

The screenshot shows a dashboard editor interface. At the top, there's a menu bar with File, Edit, View, Insert, Page, Arrange, Resource, and Help. To the right of the menu are Reset and Share buttons. Below the menu is a toolbar with various icons for navigation, search, and data manipulation. On the right side, there's a sidebar titled "Theme and L" which is currently displaying the "THEME" tab. Under "Current Theme" is "Default". Below it are two preview cards: one for "Text" (labeled "Default") and another for "Edge" (labeled "Extract").

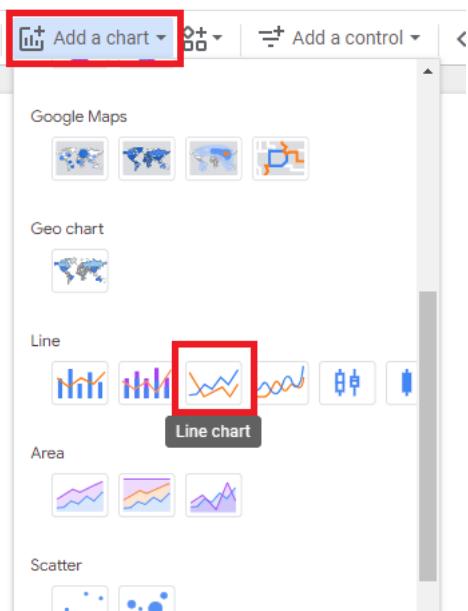
3. Use the **LAYOUT** tab to change the layout of your canvas, such as the type of navigation, canvas size, and grid settings.

The screenshot shows the "Theme and Layout" dialog box. The "LAYOUT" tab is selected. Under "View Mode", there are options for "Header visibility" (set to "Always show") and "Navigation type" (set to "Left"). There's a checked checkbox for "Respect report theme". Under "Display mode", the "Actual size" radio button is selected. There's also a checked checkbox for "Has margin". At the bottom, under "Canvas Size", the setting is "US letter (4:3) - Landscape".

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 Looker Studio interface for creating a chart. On the left, there's a sidebar with 'Chart' and tabs for 'SETUP' and 'STYLE'. Under 'SETUP', there are sections for 'Data source' (set to 'CustomerLoyaltyProgram.csv'), 'Date Range Dimension' (with 'Add dimension'), 'Dimension' (set to 'Order Year'), 'Drill down' (disabled), 'Breakdown Dimension' (set to 'Product Line'), 'Metric' (set to 'Quantity Sold' with 'SUM' aggregation), and 'Optional metrics' (disabled). On the right, there's a 'Properties' pane with tabs for 'Data' (selected) and 'Style'. The 'Data' tab shows the current configuration.

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 Data pane. In the 'Dimension' section, 'Order Year' is selected and highlighted in green. A red arrow points from the text below to this selection.

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

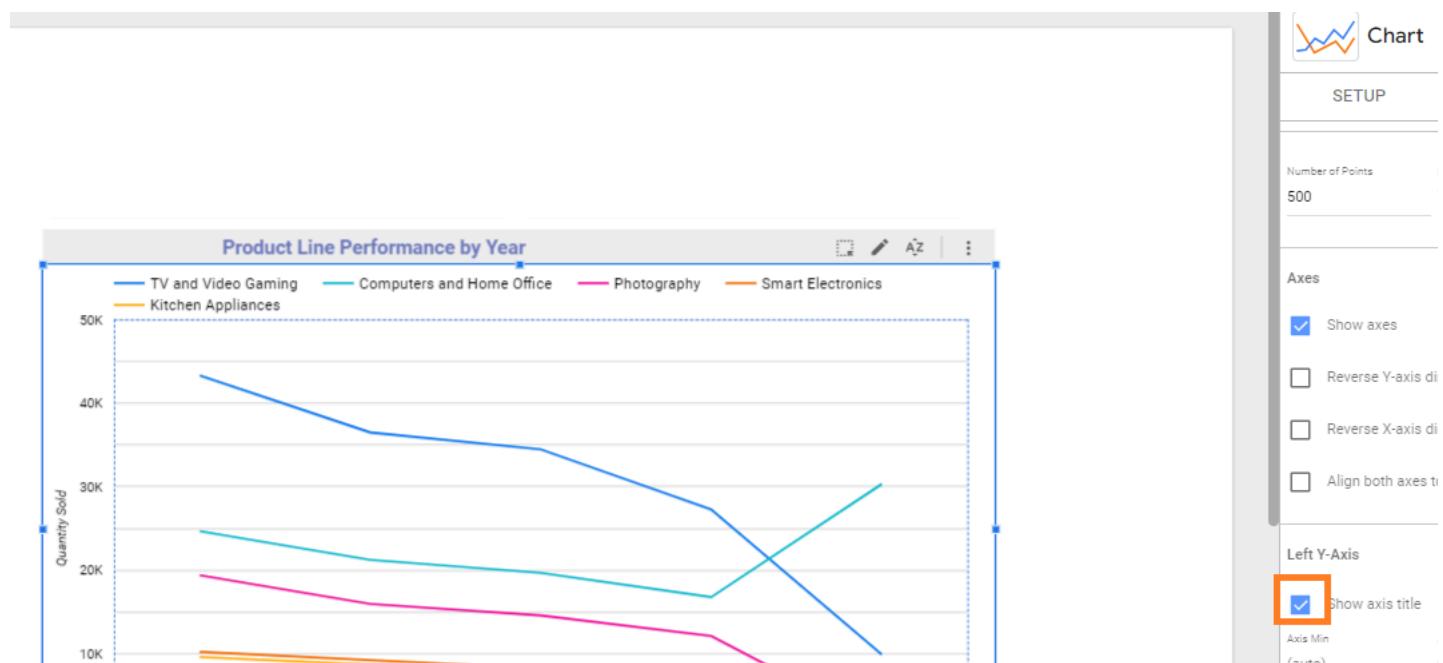
The screenshot shows the Power BI Data pane. In the 'Metric' section, 'Quantity Sold' is selected and highlighted in blue. A red box highlights the 'Quantity Sold' entry in the list.

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

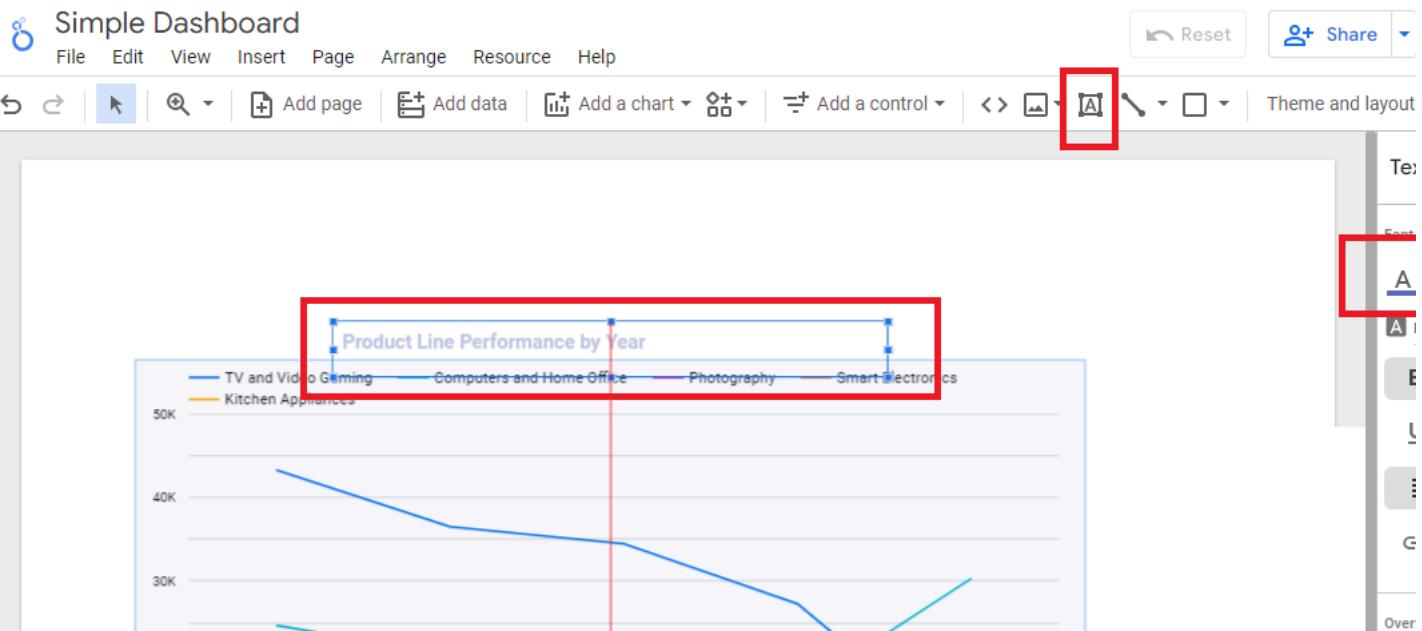
7. From the data pane, drag **Product Line** to the **Breakdown dimension** field.

The screenshot shows the Power BI Data view with the 'Chart' tab selected. In the 'SETUP' section, under 'Dimension', 'Order Year' is highlighted. Below it, a search bar contains 'product line'. A red arrow points to this search bar. Another red arrow points to the 'Product Line' item in the list of results.

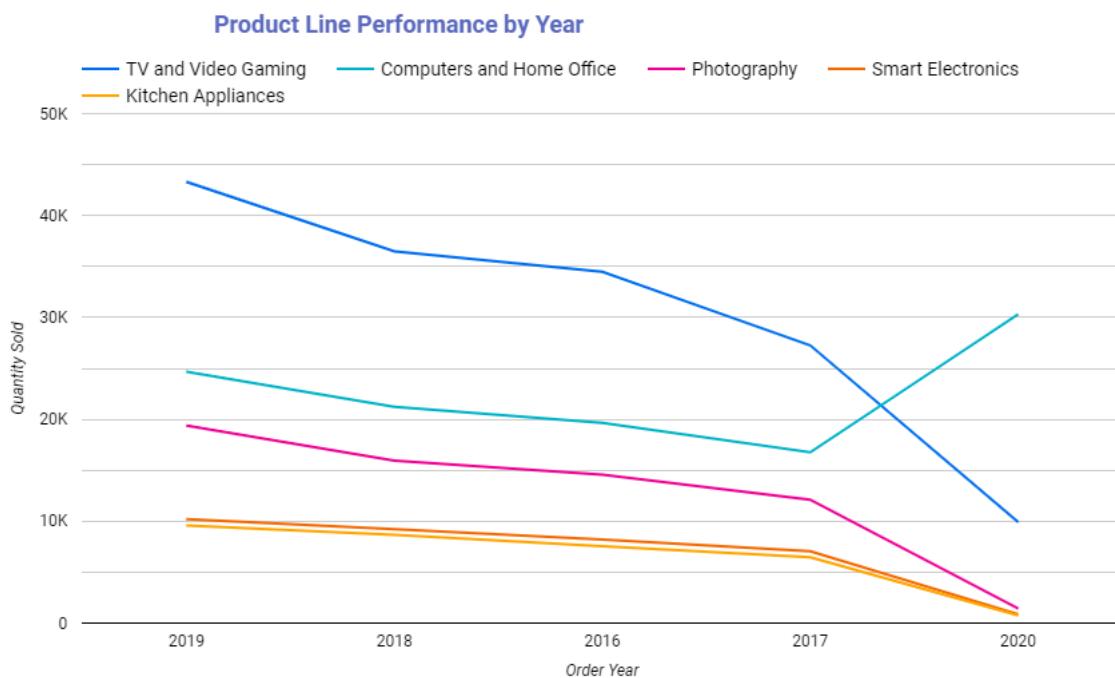
8. To include the x and y axis labels, click the **STYLE** tab in the chart's **Properties** pane, and check the box for **Show axis title** in both the **Left Y-axis** and the **X-axis** sections.



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.



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



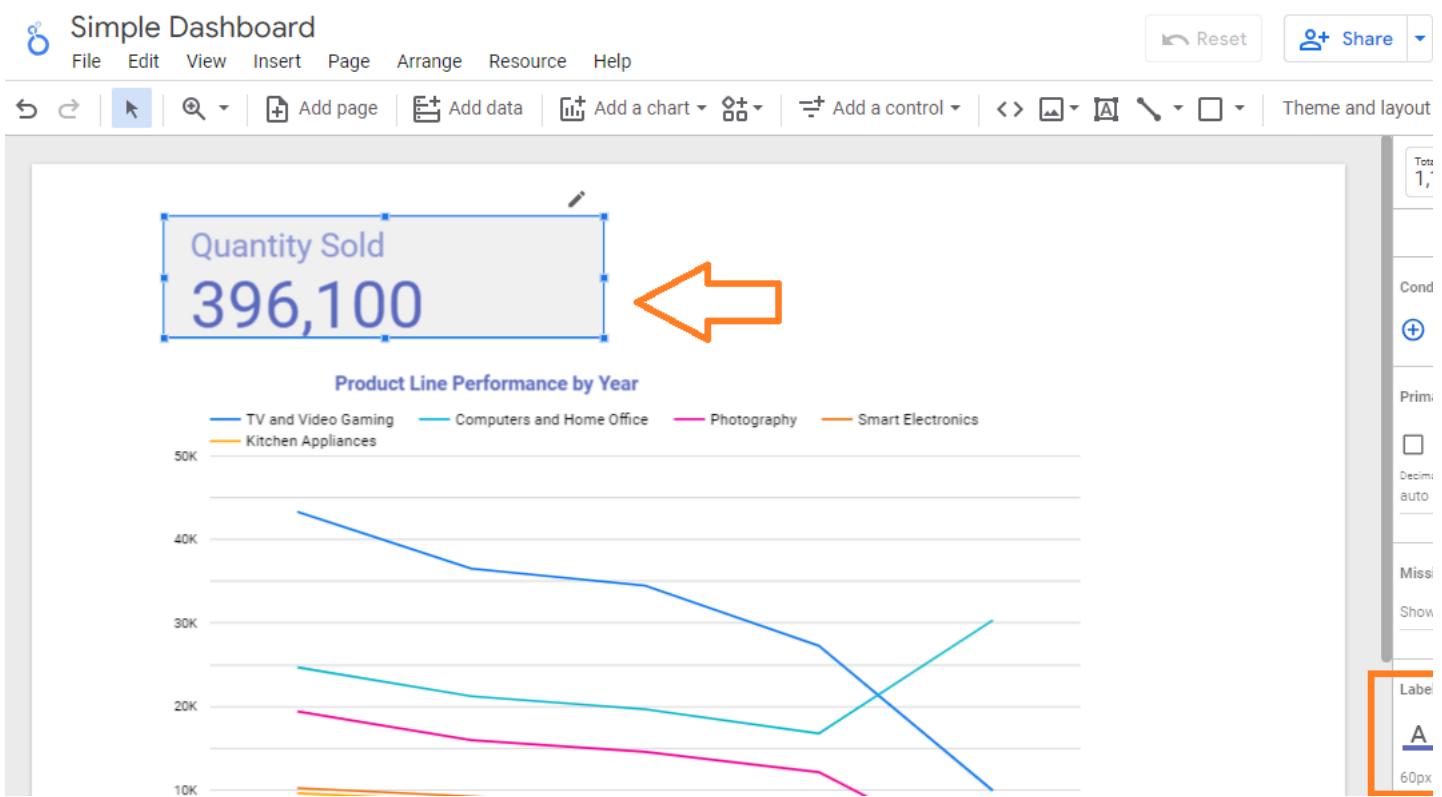
Now you will include two scorecards to display the *Total Quantity Sold* and *Revenue* above this line chart.

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.

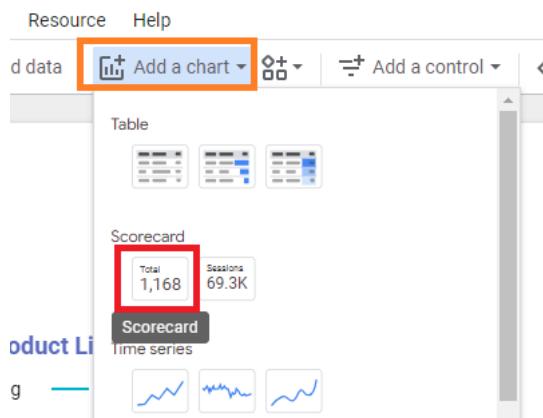
15. You can change the size and position as you like.

16. Use the **STYLE** tab in the scorecard chart's **Properties** pane to change the font size and color to **48pt** and **dark blue**.

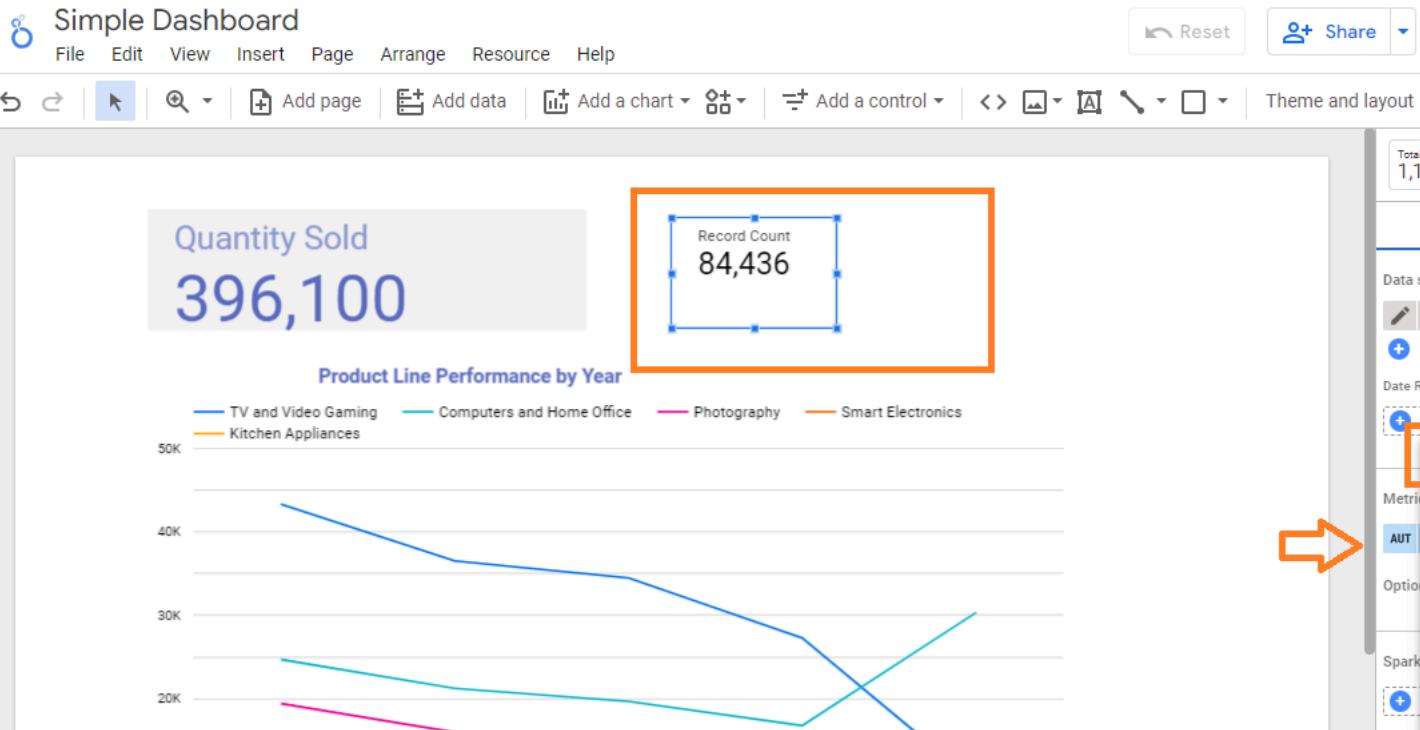


Now you will add the second scorecard chart above the line chart.

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



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

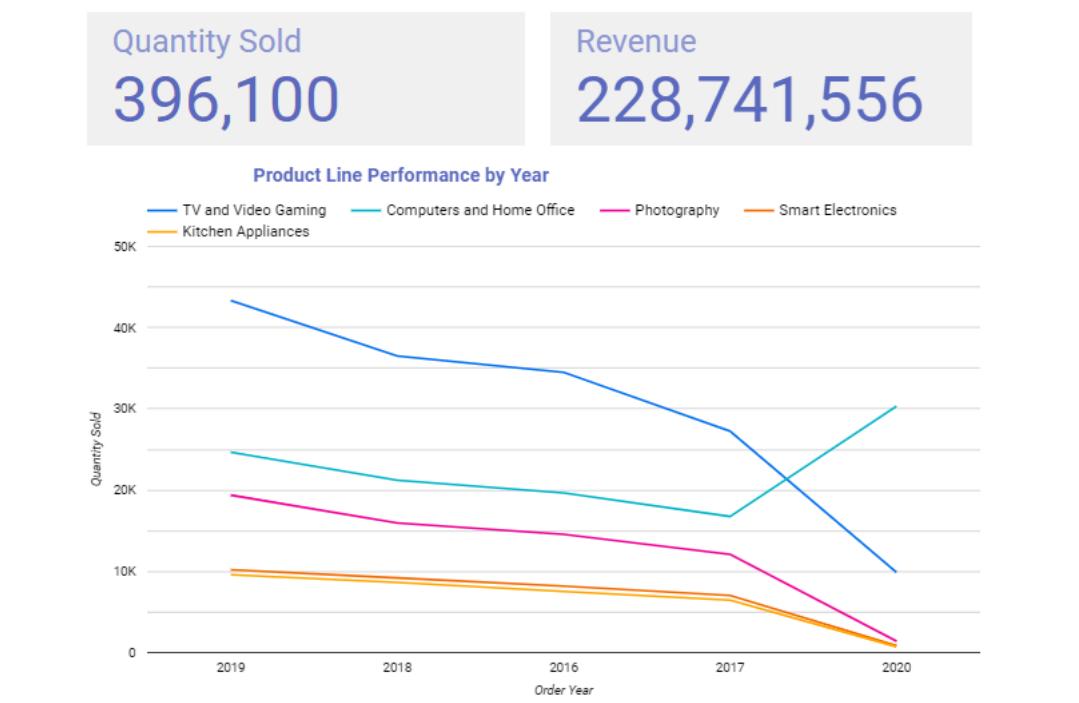


This time Looker Studio has picked **Record Count** to create this scorecard.

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](#)