Explore and Create Reports with Data Studio

Overview

Google Data Studio turns your data into informative dashboards and reports that are easy to read, easy to share, and fully customizable. Dashboarding allows you to tell great data stories to support better business decisions.

BigQuery is Google's fully managed, NoOps, low cost analytics database. With BigQuery you can query terabytes and terabytes of data without having any infrastructure to manage or needing a database administrator. BigQuery uses SQL and can take advantage of the pay-as-you-go model. BigQuery allows you to focus on analyzing data to find meaningful insights.

The dataset used in this lab is an ecommerce dataset that has millions of Google Analytics records for the Google Merchandise Store loaded into BigQuery. You will explore the available fields and row of the dataset for insights.

This lab focuses on how to create new reports and explore your ecommerce dataset visually for insights.

What you'll do

In this lab, you:

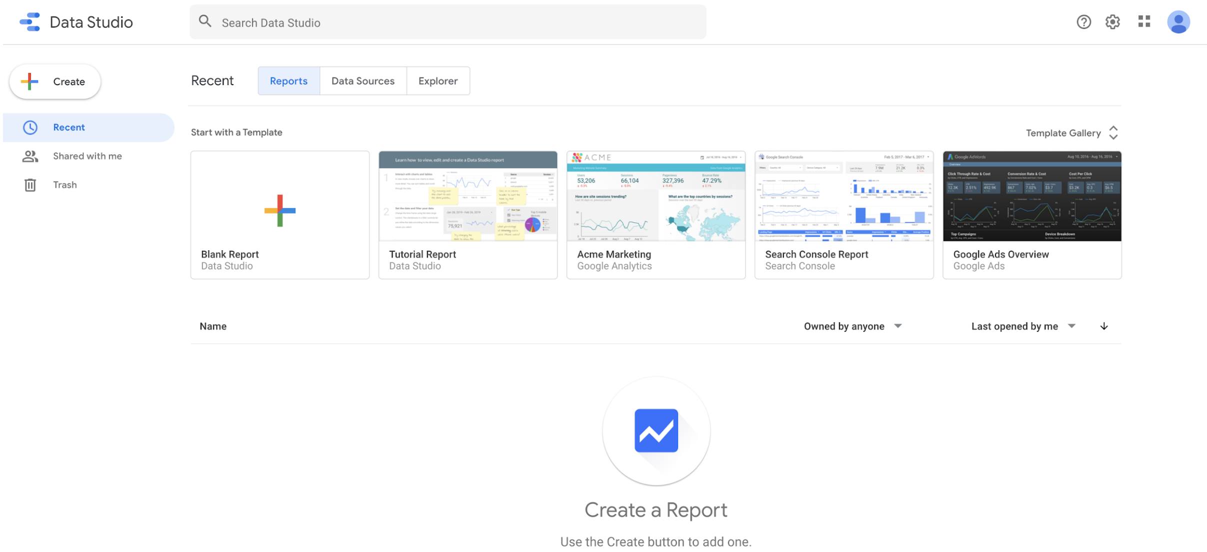
- Launch Data Studio
- Create and manipulate a report
- Create an interactive filter for your report

Launch Data Studio and create a blank report

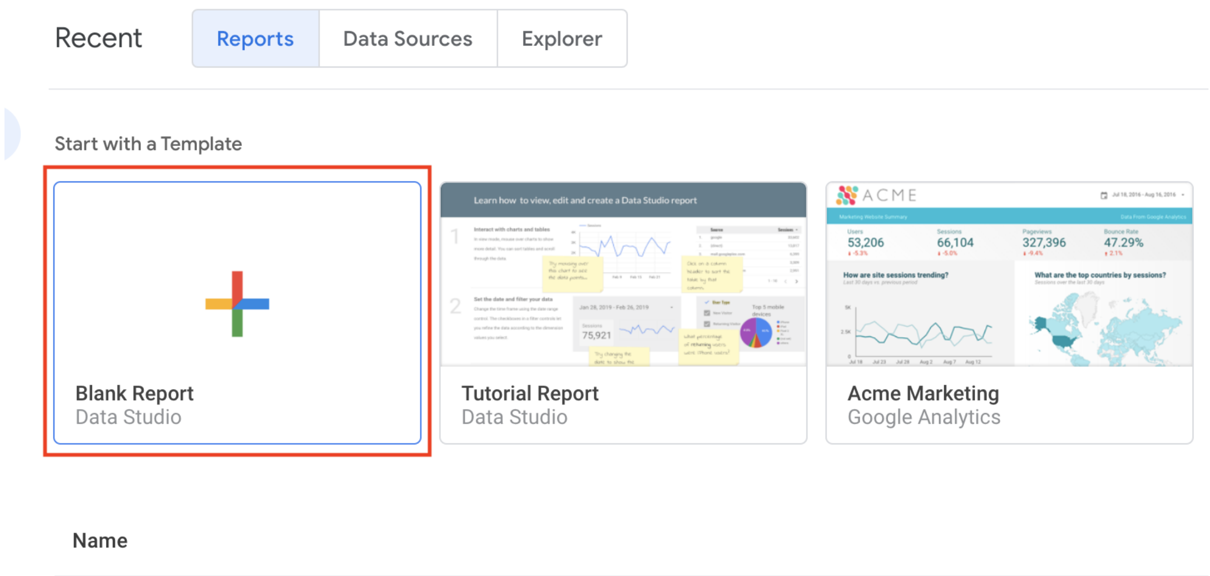
1. Open Google Data Studio in a new browser tab or window.

Note: Make sure that you are logged in using the username and password provided in the Connection Details panel.

The Data Studio home page opens.



2. From the homepage, click the **Blank Report** template:



3. Click through the following prompts:

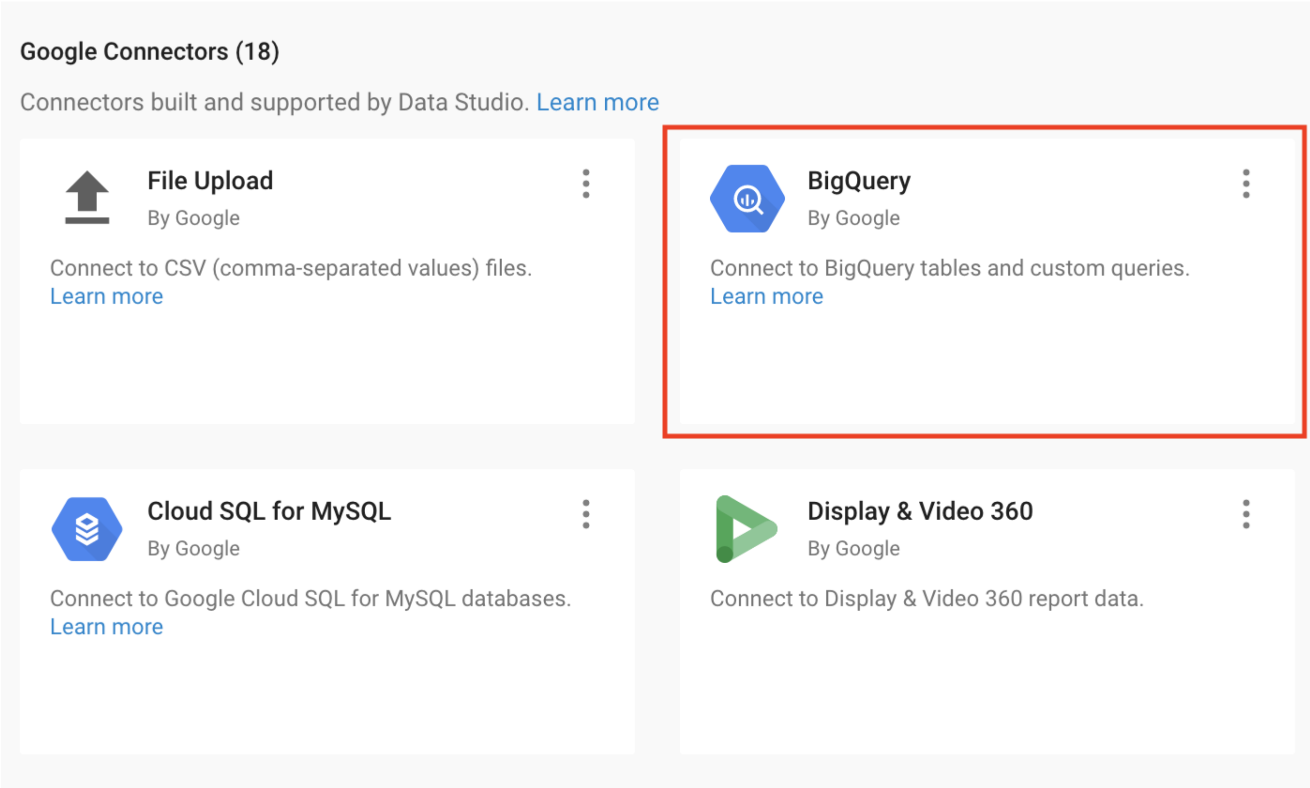
- Check the checkbox to acknowledge you have read and agree to the Google Data Studio Additional Terms, then click **Continue**.
- On the Sign up for emails to get the most out of Google Data Studio dialog, select "No" to all options, then click **Continue**.

4. Click the **Blank Report** template again.

A new, untitled report opens.

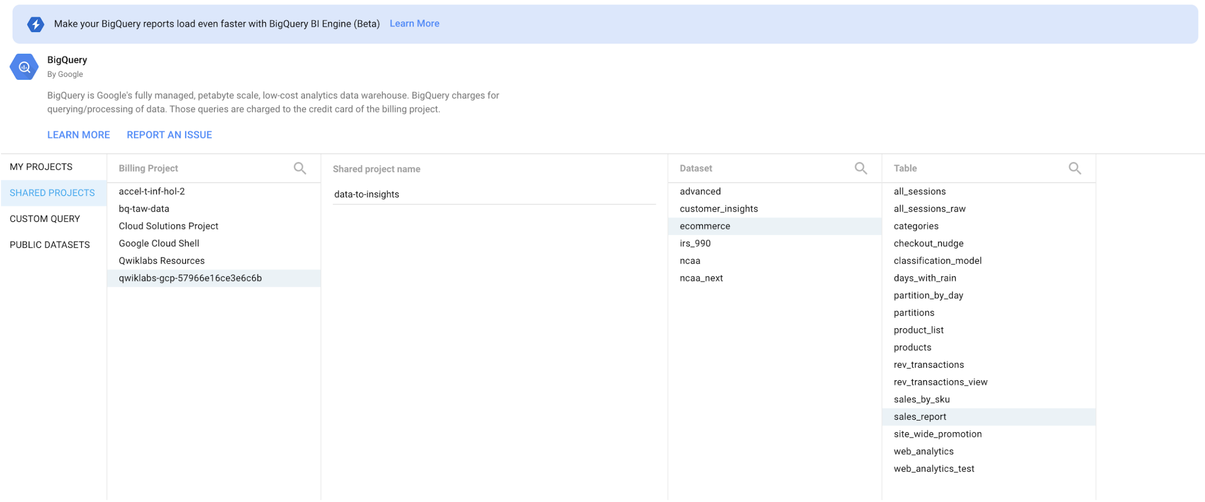
5. You'll be on the **Connect to data** tab.

6. In the Google Connectors section, select **BigQuery**.

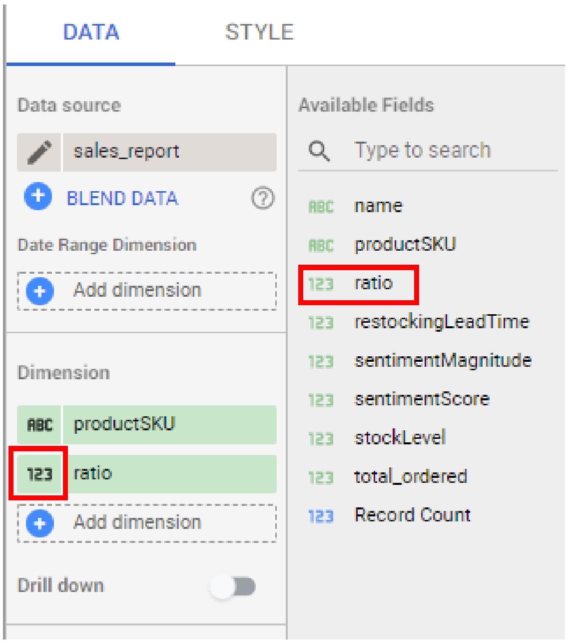


7. For Authorization, click **Authorize**. This allows Data Studio access to your Google Cloud project.
8. Define your project:

- Click on **Shared Projects** > **your Project ID**, which is found in the **Connection Details** panel (begins with *qwiklabs*-).
- For **Shared project name** type "data-to-insights".
- For **Dataset** select **ecommerce**.
- For **Table** select **sales_report**.



9. Click **Add** in the bottom right corner and then click **Add to Report**.
10. A preview of the available fields you can add to the report opens.
11. Under Available Fields, click on **ratio**, and drag it into the Dimension section.
12. Click in the number icon to edit.



13. Scroll down to the Type area, and use the dropdown menu to select **Numeric** > **Percent**.

    You should now see the ratio column added with values as a percentage.

    Delete the table that was created for you - you will now create a report with a customized table.

Create a report

Now add some visuals and interactive filters for your report users.

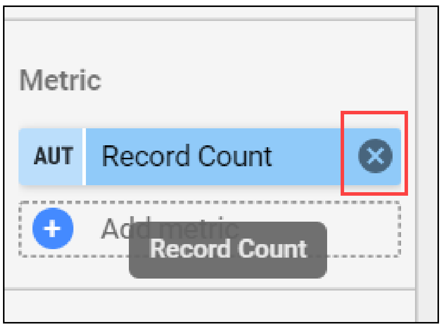
Add a Report Title and Page Title

1. In the top-left, click "Untitled Report" and rename it "Ecommerce Product Operations Report".
2. In the reporting tools menu bar, click on the text icon (looks like a boxed in A).
3. Click onto a blank area in your report. In the text area, type "Product Inventory Watchlist".
4. Highlight the text in the text area and in the Text Properties panel, increase the font size to 32px. You may need to adjust your text box so it fits correctly.

Create a data table

1. From the menu bar, select **Insert** > **Table**. Click onto the report to drop your table. Feel free to adjust the size of this table and the width of the columns.
2. In the new Data and Style panel that opens, specify the following in the **Data** tab:

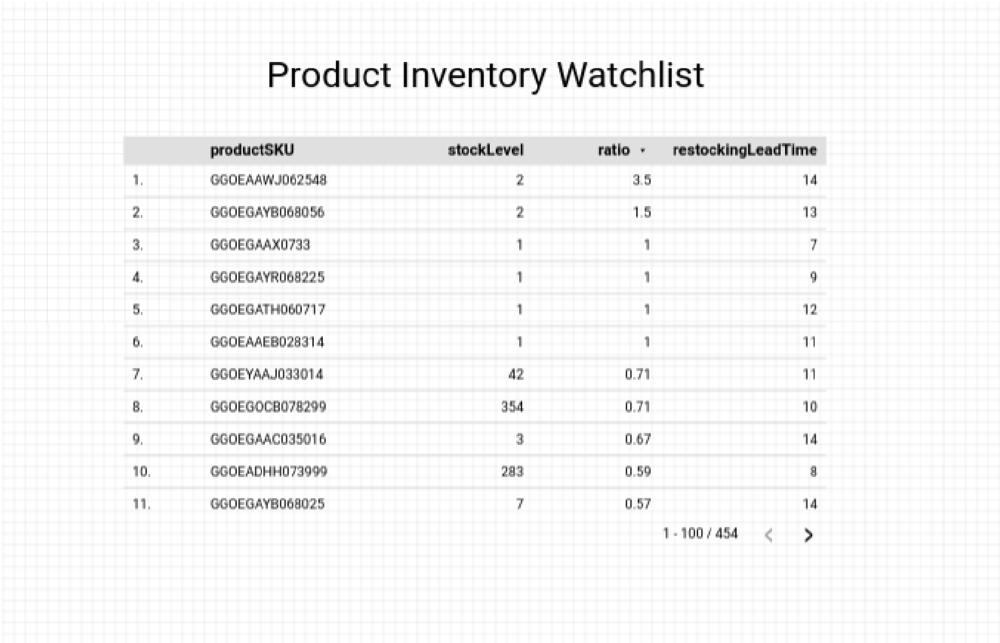
- If **productSKU** is not present in the **Dimension** section, click **productSKU** from the **Available Fields** section and drag it to the **Add dimension** field.
- In the **Metric** section, if present, remove **Record Count** as a Metric by clicking **x**.
- Add **stockLevel** to the Metric area.



- Drag **ratio** to add it as a new Metric
- Drag **restockingLeadTime** to add it as a new Metric

- In the Sort field, click on **productSKU** and choose **ratio** from the dropdown menu for the new Sort field.
- Specify **Descending**.

3. At the top of the panel, click the **Style** tab.
4. Under **Table Header**, check **Wrap Text**.
5. Manually adjust the widths of the table columns by hovering over the vertical border and click and dragging.
6. Confirm your report looks visually similar to the report below:


Product Inventory Watchlist

	productSKU	stockLevel	ratio ▾	restockingLeadTime
1.	GGOEAAWJ062548	2	3.5	14
2.	GGOEGAYB068056	2	1.5	13
3.	GGOEGAAX0733	1	1	7
4.	GGOEGAYR068225	1	1	9
5.	GGOEGATH060717	1	1	12
6.	GGOEAAEB028314	1	1	11
7.	GGOEYAAJ033014	42	0.71	11
8.	GGOEGOCB078299	354	0.71	10
9.	GGOEGAAC035016	3	0.67	14
10.	GGOEADHH073999	283	0.59	8
11.	GGOEGAYB068025	7	0.57	14

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Create an interactive filter

1. Click on your data table.
2. Under Available Fields, click on **name**, and drag it into the Dimension section above `productSKU`.
3. Similarly, drag **total_ordered** into the metric section below `restockingLeadTime`.
4. In the upper-right, select the **View** button to preview your report. You should be presented with the following:

Product Inventory Watchlist

	name	productSKU	stockLevel	ratio ▾	restockingLeadTime	total_ordered
1.	Android Infan...	GGOEAAWJ062548	2	3.5	14	7
2.	Youth Baseba...	GGOEGAYB068056	2	1.5	13	3
3.	Women's Sho...	GGOEGAAX0733	1	1	7	1
4.	Youth Short S...	GGOEGAYR068225	1	1	9	1
5.	Women's Con...	GGOEGATH060717	1	1	12	1
6.	Android Wom...	GGOEAAEB028314	1	1	11	1
7.	Men's Long & ...	GGOEYAAJ033014	42	0.71	11	30
8.	Leather Journ...	GGOEGOCB078299	354	0.71	10	250
9.	Men's Baysid...	GGOEGAAC035016	3	0.67	14	2
10.	Android 17oz ...	GGOEADHH073999	283	0.59	8	167
11.	Youth Baseba...	GGOEGAYB068025	7	0.57	14	4

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