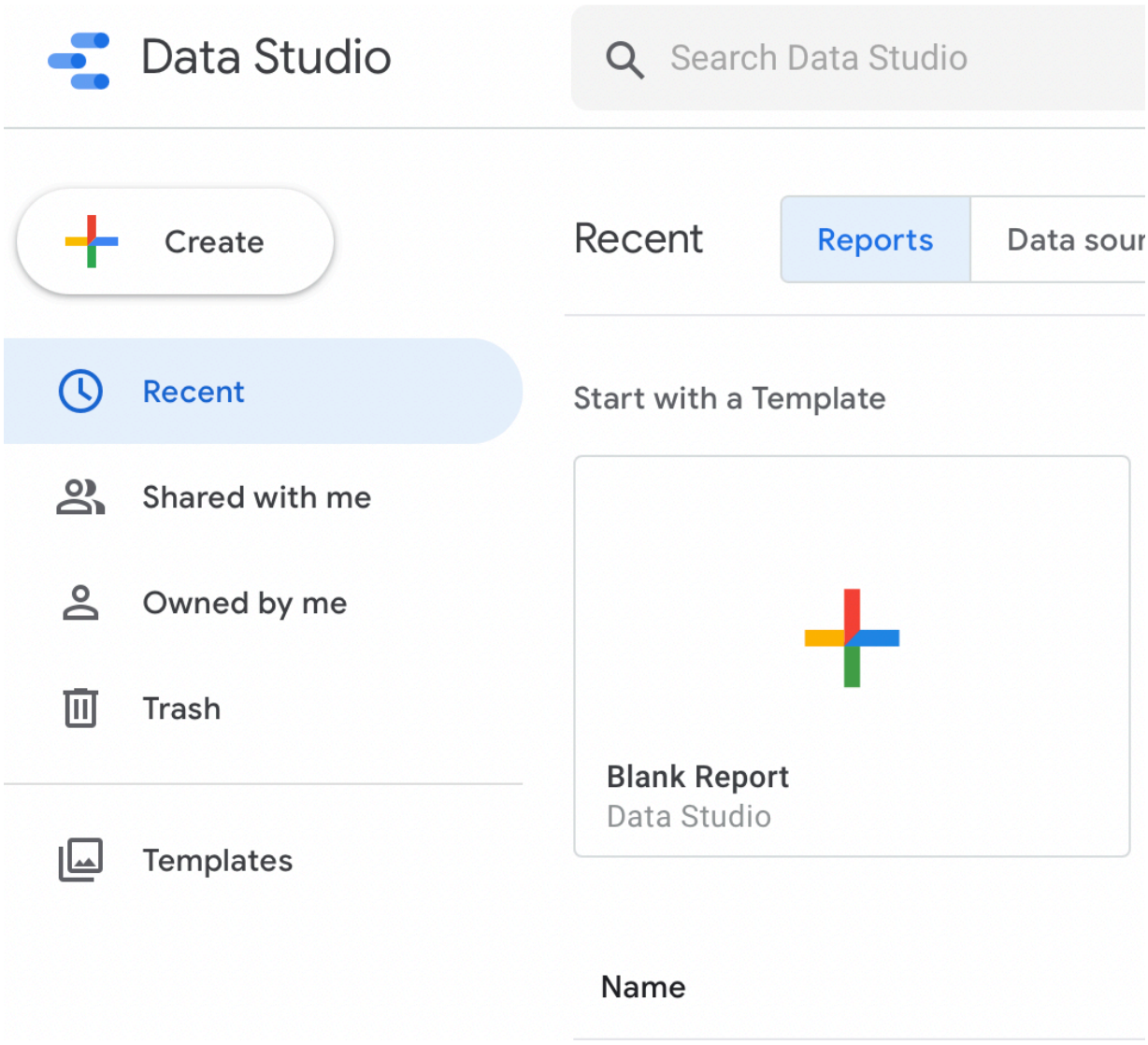
Visualizing BigQuery Data in Data Studio

Data Studio and BigQuery together form a powerful combination that allows you to create dashboards that empower users to understand the information and insights in your data. These dashboards can easily be shared using the familiar interface of Google Drive, and embedded in sites for even broader distribution.

In the Cloud Console, on the project selector page, select the Cloud project(our Data Pipeline project) This option is available in a drop down menu in the top left portion of the screen. Make sure that billing is enabled for your Google Cloud project. Data Studio is Google's free data visualization tool and BigQuery is Google Cloud's fully-managed, highly scalable, and cost-effective cloud data warehouse . So we will use the tables we created in BQ using our data pipeline as source for Data Studio and create visualizations.

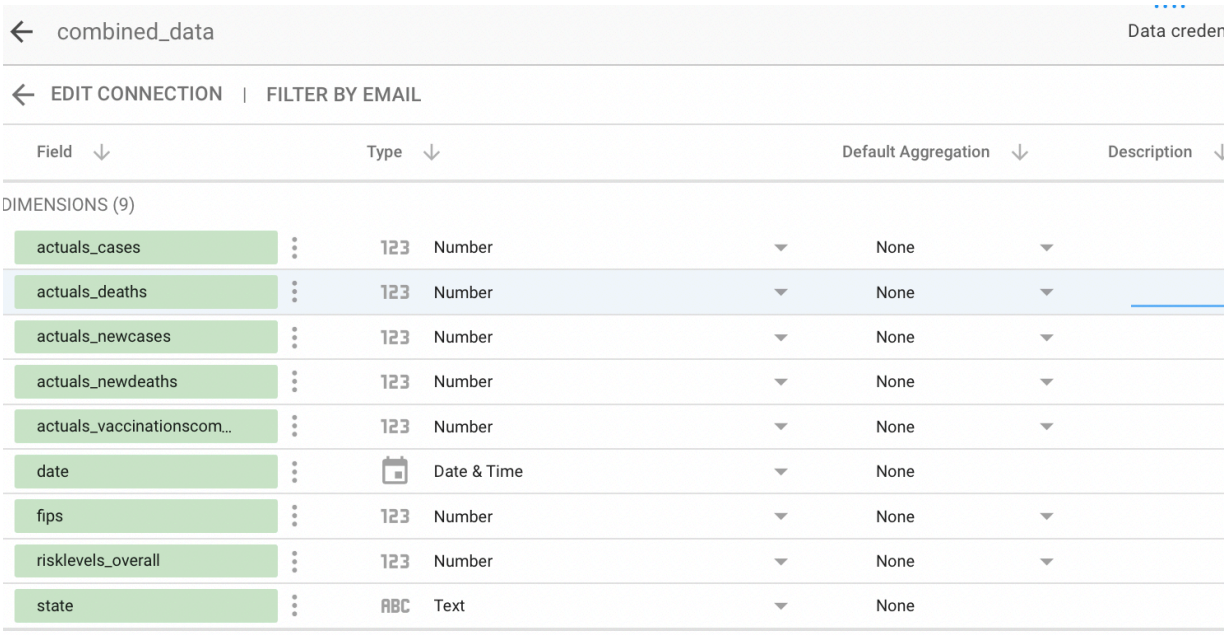
Create a data source

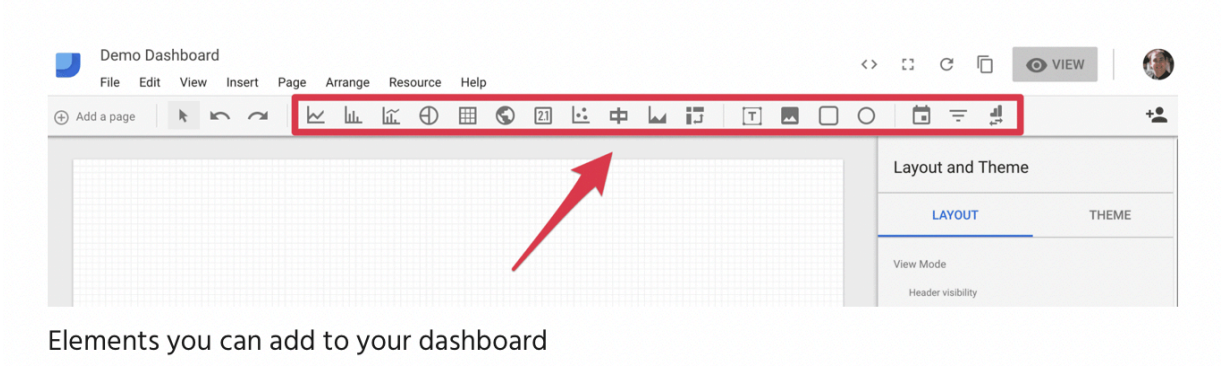
The first step in creating a report in Data Studio is to create a data source for the report. A report may contain one or more data sources. When you create a BigQuery data source, Data Studio uses the BigQuery connector.



n the **Add a data to report** window, view the **Connect to data** section and select **BigQuery** by clicking. Choose the PROJECT , DATASET and TABLE . In the lower right corner of the window, click **Add**. If you get a dialog box saying "You are about to add data to this report," click on "ADD TO REPORT" to proceed.

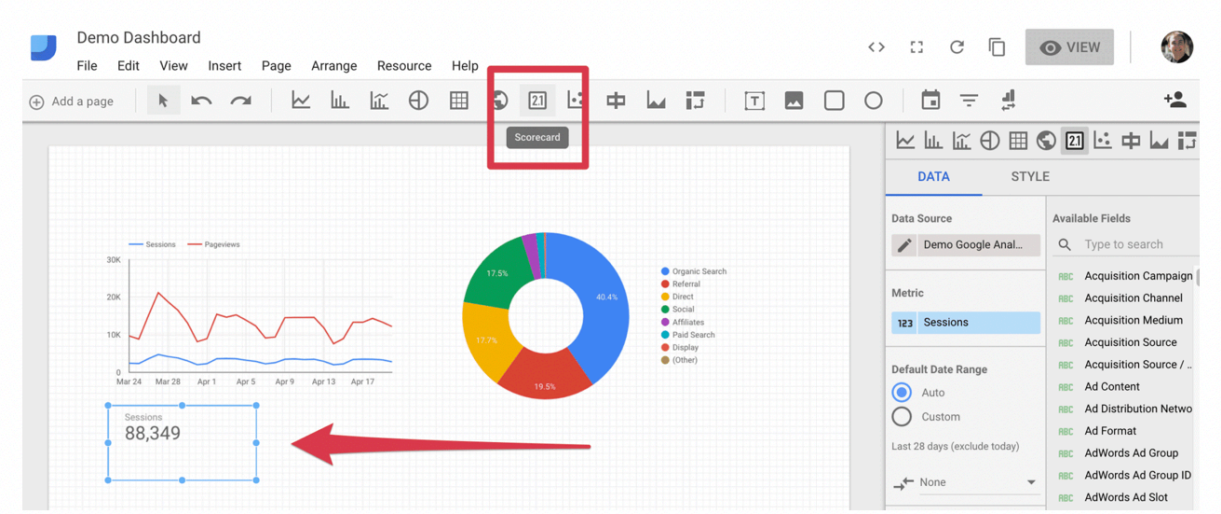
EDITI DATA INPUT (CHANGE DATA TYPE)





Elements you can add to your dashboard

Scorecards are a powerful element that allows us to present raw metrics. For this example, let's add a scorecard element under our line graph.

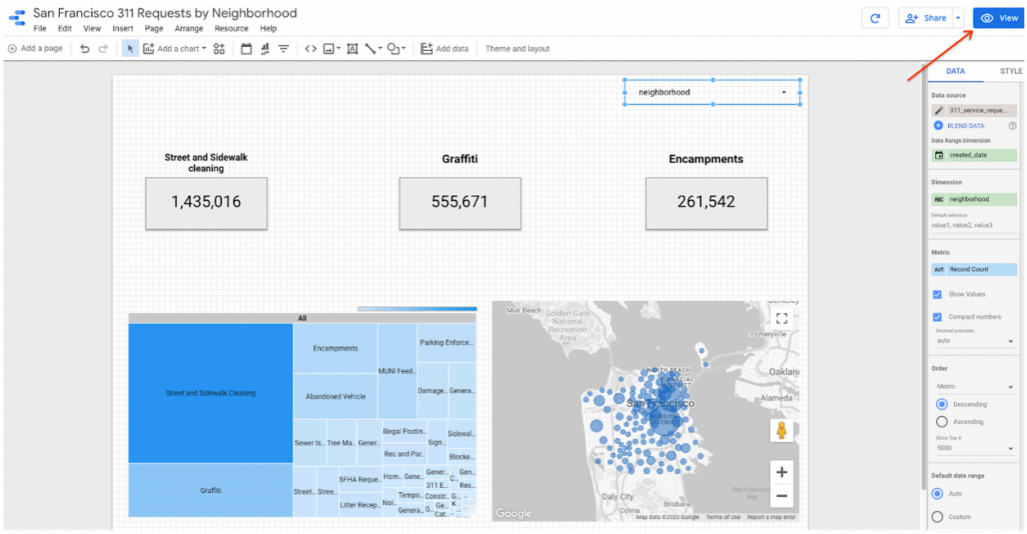


Add a scorecard

Testing your dashboard

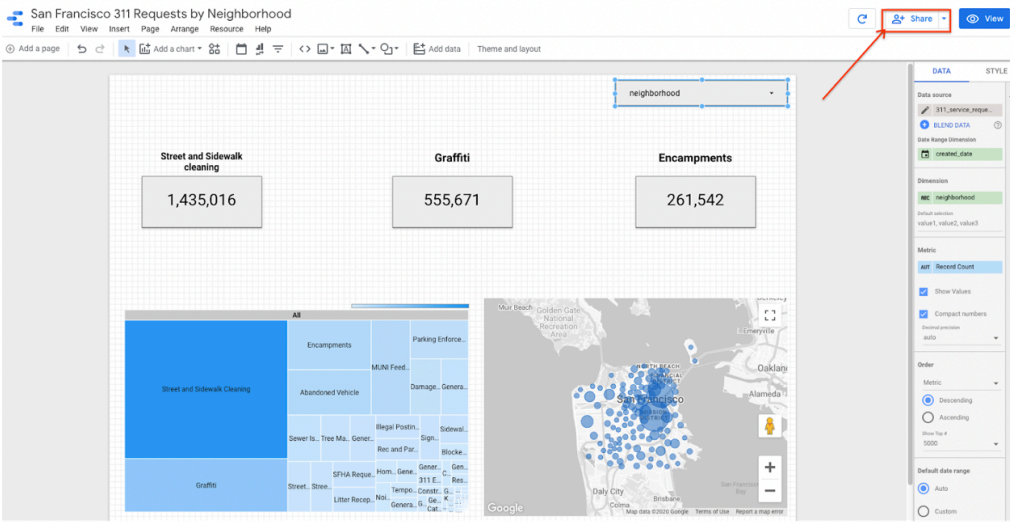
Now that the dashboard is complete, let's take a look at it from the viewer perspective to ensure everything works as expected.

Click **View** in the top right corner, and you will be able to view the dashboard from the perspective of your viewers.



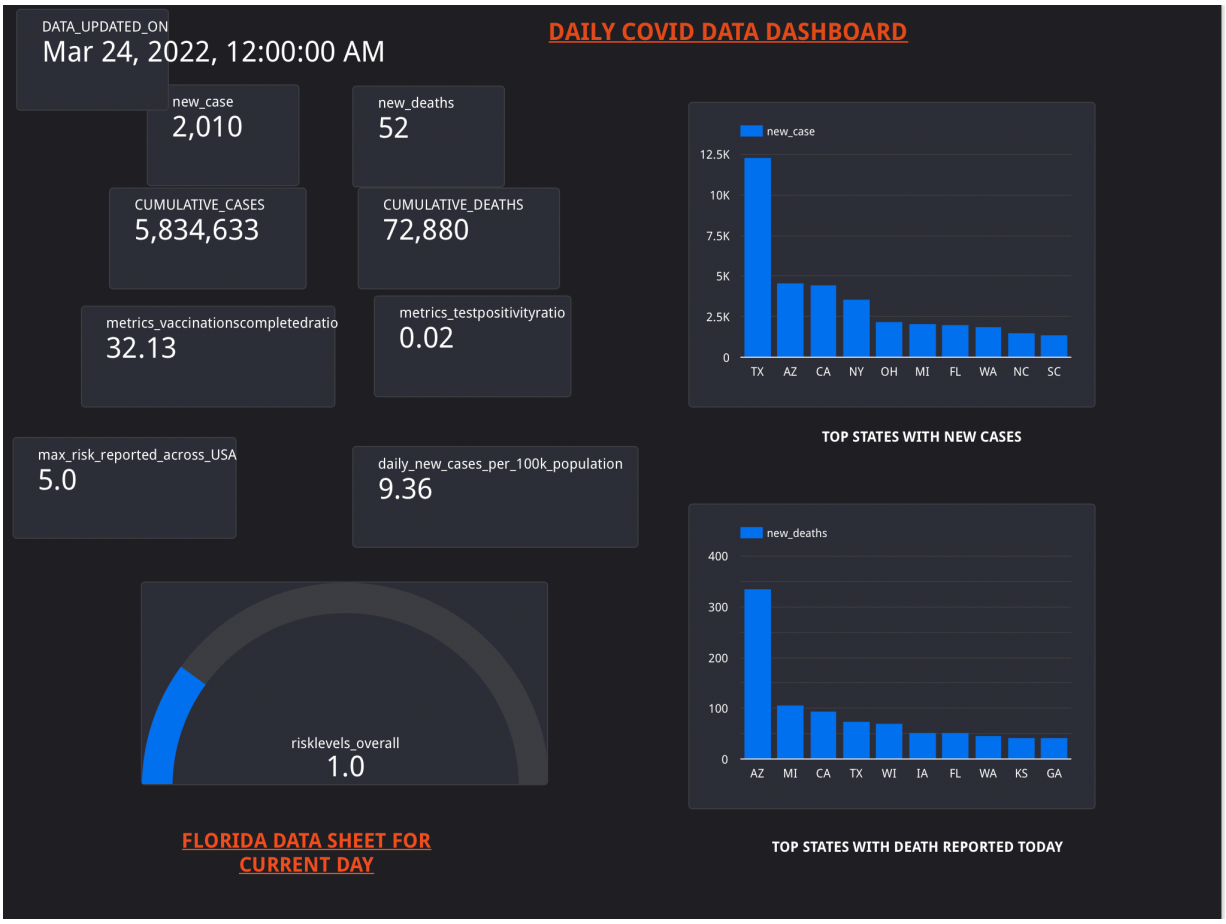
Sharing dashboard

Clicking the **Share** button in the top right corner will open the sharing interface with a number of options, including sharing with individual users by email, sharing by domain, or making it publicly available to all users. This last setting is particularly useful if you wish to embed the report on a public website.



DASHBOARD FOR CURRENT DATA

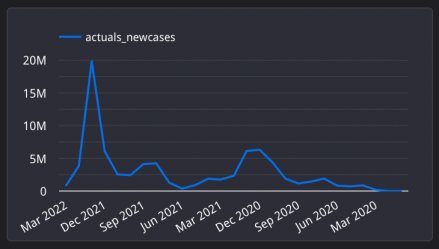
We have two pages for the COVID dashboard in the current project

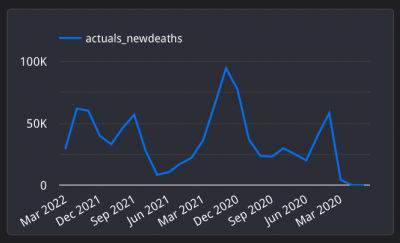

DATA_UPDATED_ON
Mar 24, 2022, 12:00:00 AM
DAILY COVID DATA DASHBOARD
new_case
2,010
new_deaths
52
CUMULATIVE_CASES
5,834,633
CUMULATIVE_DEATHS
72,880
metrics_vaccinationscompletedratio
32.13
metrics_testpositivityratio
0.02
max_risk_reported_across_USA
5.0
daily_new_cases_per_100k_population
9.36
risklevels_overall
1.0
new_case
12.5K
10K
7.5K
5K
2.5K
0
TX AZ CA NY OH MI FL WA NC SC
TOP STATES WITH NEW CASES
new_deaths
400
300
200
100
0
AZ MI CA TX WI IA FL WA KS GA
TOP STATES WITH DEATH REPORTED TODAY
FLORIDA DATA SHEET FOR CURRENT DAY

HISTORICAL PERSPECTIVE - COVID DATA

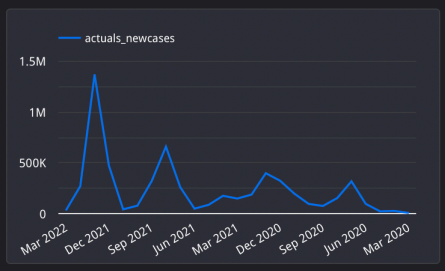
Start_date
Jan 21, 2020, 12:00:00 AM

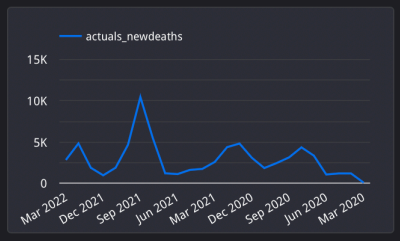
Last_date
Mar 24, 2022, 12:00:00 AM





TIMESERIES PROGRESS OF NEW CASES/DEATHS - US STATES





TIMESERIES PROGRESS OF NEW CASES/DEATHS - FLORIDA STATE