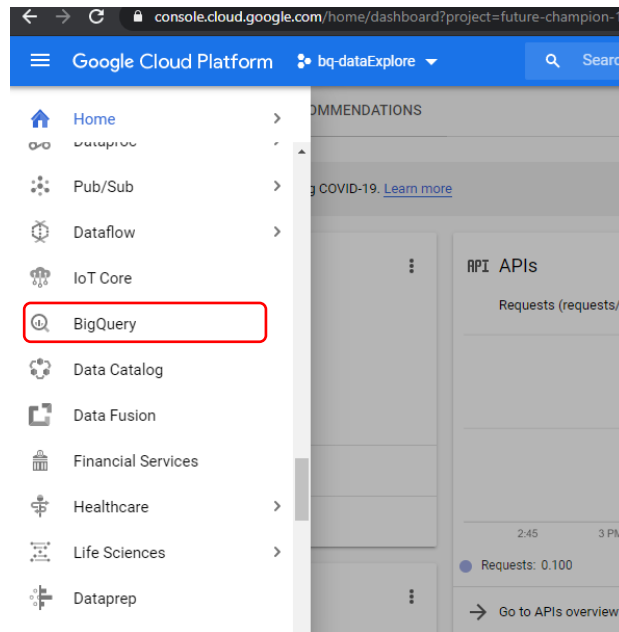


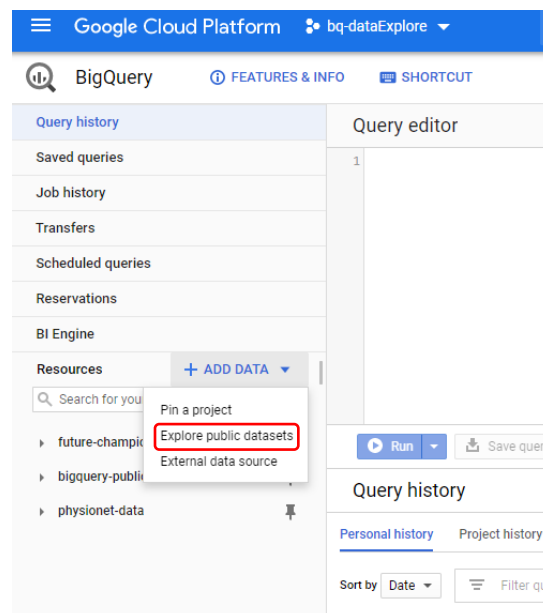
Instructions for accessing Google Cloud's COVID-19 public data

Prepared by: Howard Lei (hlei@choc.org)

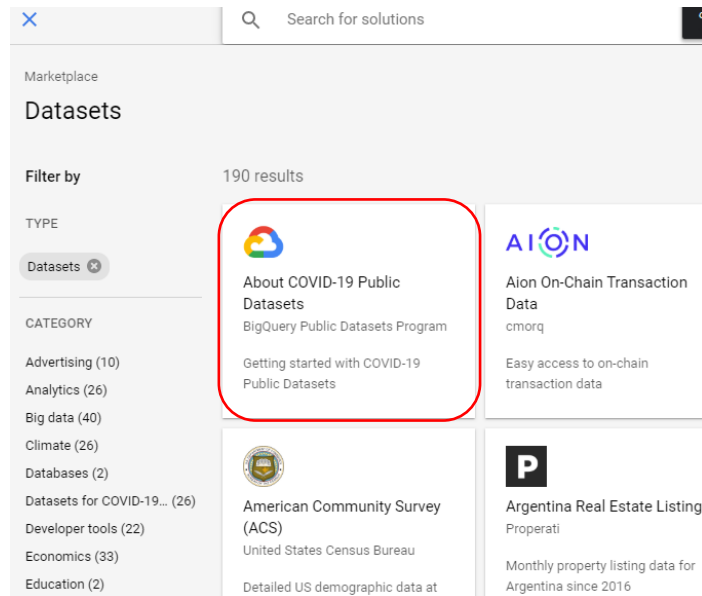
1. Navigate to <https://console.cloud.google.com>
2. Create or login with a Google account, and register for a free Google Cloud trial. Note: You may need to input credit card info, but you won't be charged anything.
3. From the sidebar, navigate to BigQuery



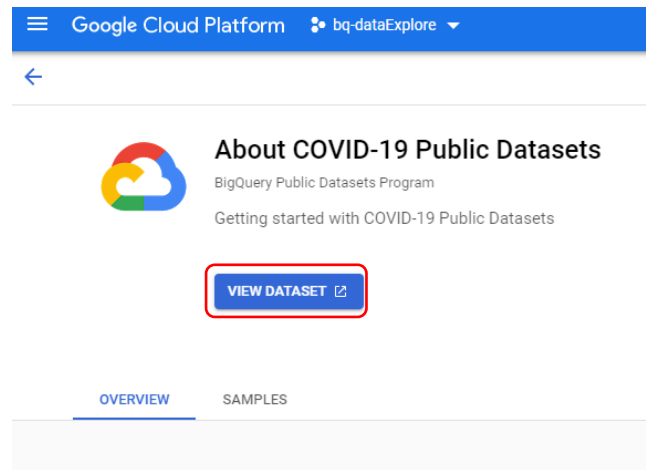
4. Click on “ADD DATA” under “Resources”, and go to “Explore public datasets”



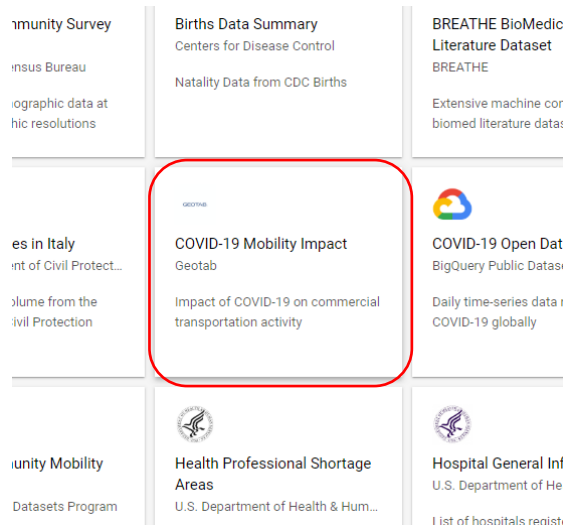
5. Click on the box that says “About COVID-19 Public Datasets”



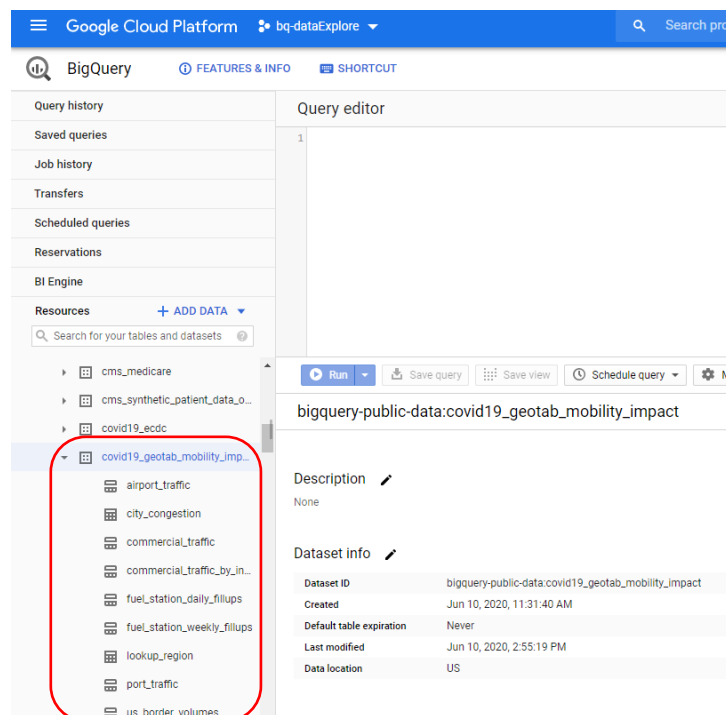
6. Click on “VIEW DATASET”



7. Many of the boxes on the next page contain separate public datasets. You can click on one of them to gain access. For example, to access the COVID-19 Mobility Impacts dataset, click on the “COVID-19 Mobility Impact” box:



8. Next, click on “VIEW DATASET”. It should take you back to BigQuery, and you should see the dataset and tables under “Resources”.



9. Click on one of the tables to view the table’s schema. For example, clicking on the “airport_traffic” table pulls up its schema:

Google Cloud Platform bq-dataExplore

Search products and resources

BigQuery FEATURES & INFO SHORTCUT

Query history Saved queries Job history Transfers Scheduled queries Reservations BI Engine Resources + ADD DATA

Search for your tables and datasets

cms_medicare cms_synthetic_patient_data_o... covid19_ecdc covid19_geotab_mobility_imp... airport_traffic city_congestion commercial_traffic commercial_traffic_by_in... fuel_station_daily_fillups fuel_station_weekly_fillups lookup_region port_traffic us_border_volumes

Query editor

+ COMPOSE NEW QUERY

Run Save query Save view Schedule query More

airport_traffic

QUERY TABLE COPY TABLE DELETE TABLE

This is a partitioned table. [Learn more](#)

Schema Details Preview

Field name	Type	Mode	Policy tags	Description
aggregation_method	STRING	NULLABLE		Aggregation period used to compute this metric
date	DATE	NULLABLE		Date of the data
version	STRING	NULLABLE		Version of the table
airport_name	STRING	NULLABLE		Aggregation period used to compute this metric
percent_of_baseline	FLOAT	NULLABLE		Proportion of trips on this date as compared to Avg number of trips on the same day of week in baseline period i.e 1st February 2020 - 15th March 2020
center_point_geom	GEOGRAPHY	NULLABLE		Geographic representation of the centroid of the Airport polygon

10. Use SQL to query the data and view the results. The example below shows the results from a SELECT SQL statement:

Google Cloud Platform bq-dataExplore

Search products and resources

BigQuery FEATURES & INFO SHORTCUT

Query history Saved queries Job history Transfers Scheduled queries Reservations BI Engine Resources + ADD DATA

Search for your tables and datasets

cms_medicare cms_synthetic_patient_data_o... covid19_ecdc covid19_geotab_mobility_imp... airport_traffic city_congestion commercial_traffic commercial_traffic_by_in... fuel_station_daily_fillups fuel_station_weekly_fillups lookup_region port_traffic us_border_volumes

Query editor

+ COMPOSE NEW QUERY HIDE EDITOR

1 SELECT * FROM `bigquery-public-data.covid19_geotab_mobility_impact.airport_traffic` LIMIT 1000

Run Save query Save view Schedule query More

This query will process 3.1 MB w

Query results

SAVE RESULTS EXPLORE DATA

Query complete (1.3 sec elapsed, 914.8 KB processed)

Job information Results JSON Execution details

Some cell values are very long and the display is truncated to the first 1024 characters to improve browser performance. If full values are necessary, try lowering the number of rows per page before clicking "Show full values".

Row	aggregation_method	date	version	airport_name	percent_of_baseline	center_point_geom	city	state_region	country_iso_code_2	country_n
1	Daily	2020-04-24	1.0	LaGuardia	44.0	POINT(-73.8732455278797 40.7738834966785)	New York	New York	US-NY	United St
2	Daily	2020-05-11	1.0	LaGuardia	53.0	POINT(-73.8732455278797 40.7738834966785)	New York	New York	US-NY	United St
3	Daily	2020-07-08	1.0	LaGuardia	65.0	POINT(-73.8732455278797 40.7738834966785)	New York	New York	US-NY	United St

Rows per page: 100 1 - 100 of 1000 First page < >

11. To work with the data locally, click “SAVE RESULTS” to download the results as CSV file(s).

The screenshot shows the Google Cloud Platform BigQuery interface. The 'Query editor' tab is active, displaying a SQL query: `SELECT * FROM `bigquery-public-data.covid19_geotab_mobility_impact.airport_traffic` LIMIT 1000`. The 'Query results' tab is also visible, showing a table with columns: Row, aggregation_method, date, version, airport_name, percent_of_baseline, center_point_geom, city, and state_region. A 'Save Query Results' dialog box is open, prompting the user to 'Choose where to save the results data from the query.' The dropdown menu shows 'CSV (Google Drive) Save up to 1GB of results...'. The dialog box has 'CANCEL' and 'SAVE' buttons.

12. You can also visualize the queried data using Google’s Data Studio.

The screenshot shows the Google Cloud Platform BigQuery interface. The 'Query editor' tab is active, displaying the same SQL query as in the previous screenshot. The 'Query results' tab is also visible, showing a table with columns: Row, aggregation_method, date, version, airport_name, percent_of_baseline, center_point_geom, city, and state_region. A red box highlights the 'EXPLORE DATA' button, which has a dropdown menu with two options: 'Explore with Data Studio' (Visualize results and create live dashboards from your data) and 'Explore with GeoViz' (Visualize results in GeoViz).