Step 6 Consume Data from IoT Core to Google BigQuery

Google IoTCore support several ways to consume data.

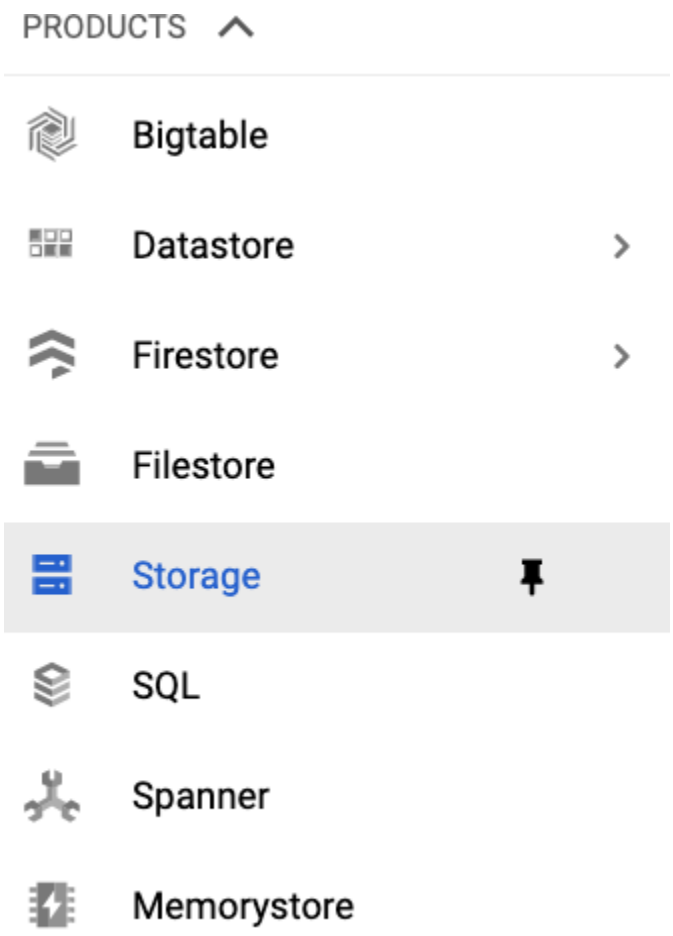
Google Cloud SDK

Google provide you with a client libraries for all major languages to push and pull data from Pub/Sub see the llink for more information: https://cloud.google.com/sdk/docs/

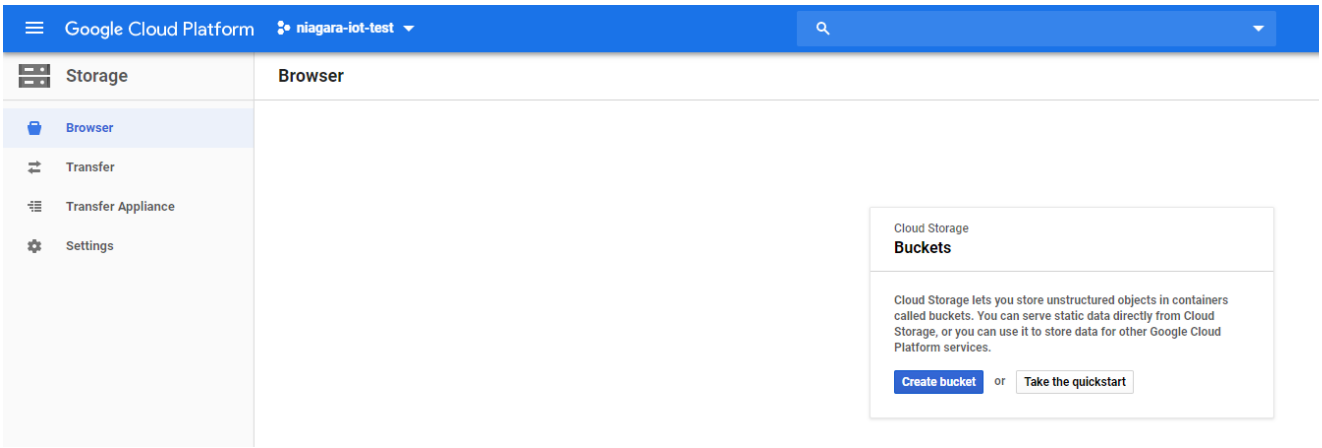
Google Cloud Services

Google IoTCore has full integration with all major Google Cloud services, in this section we will focus on **how to push data to BigQuery**

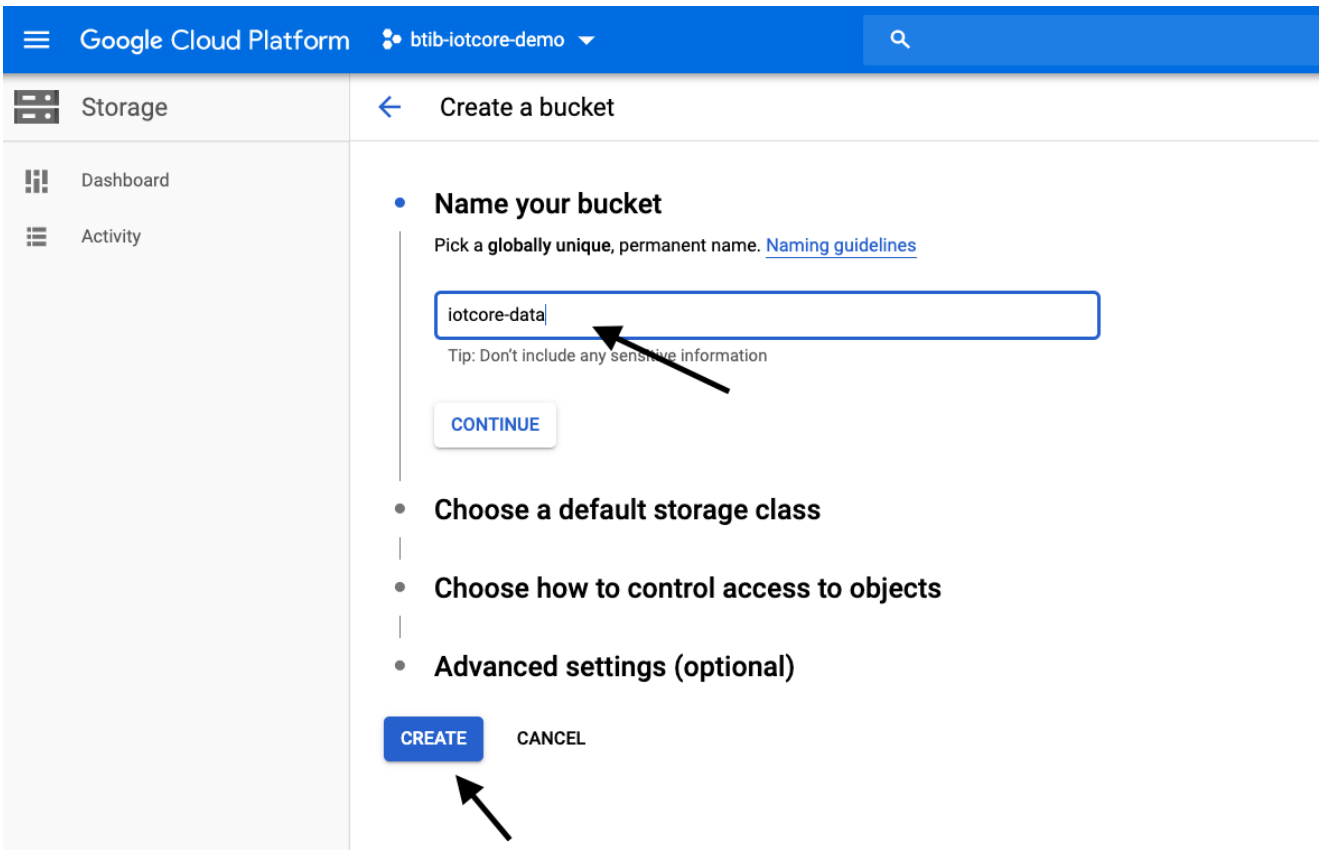
1. Go to the cloud storage service.



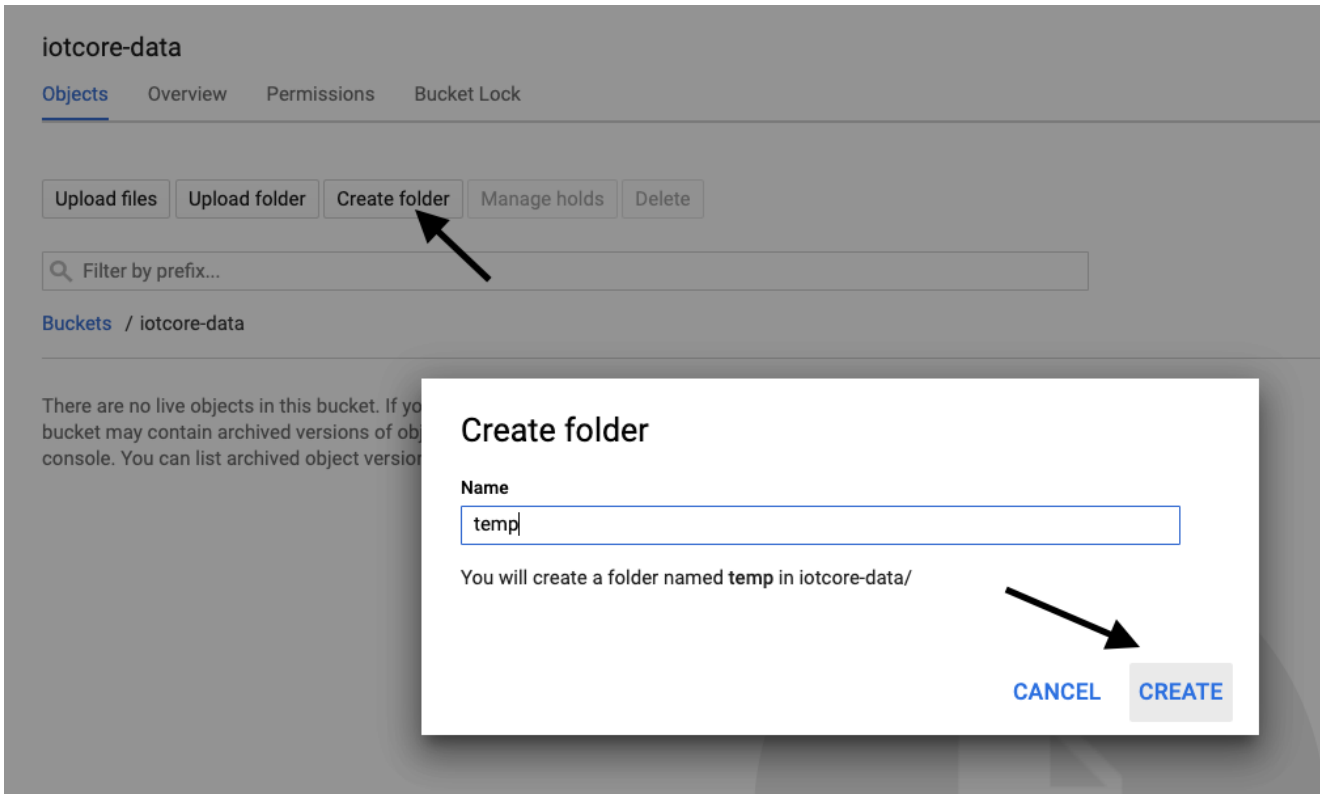
2. Create a new bucket.



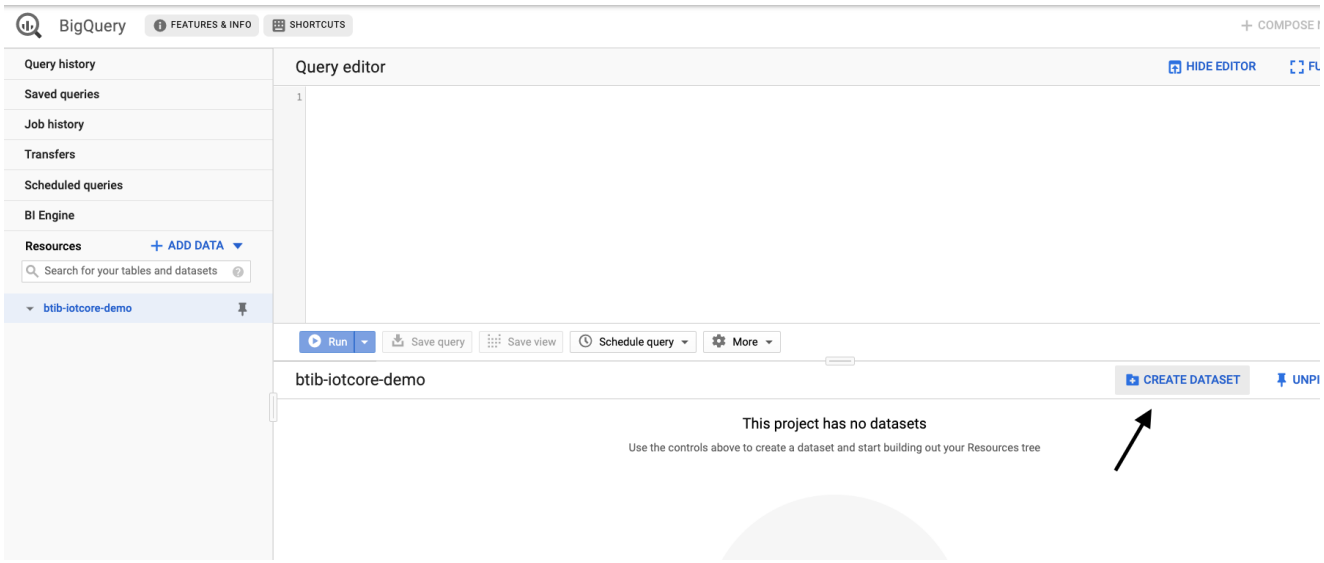
3. Give the bucket a name and hit "Create" (this bucket will be used by the DataFlow service to export IoTCore data to BigQuery)



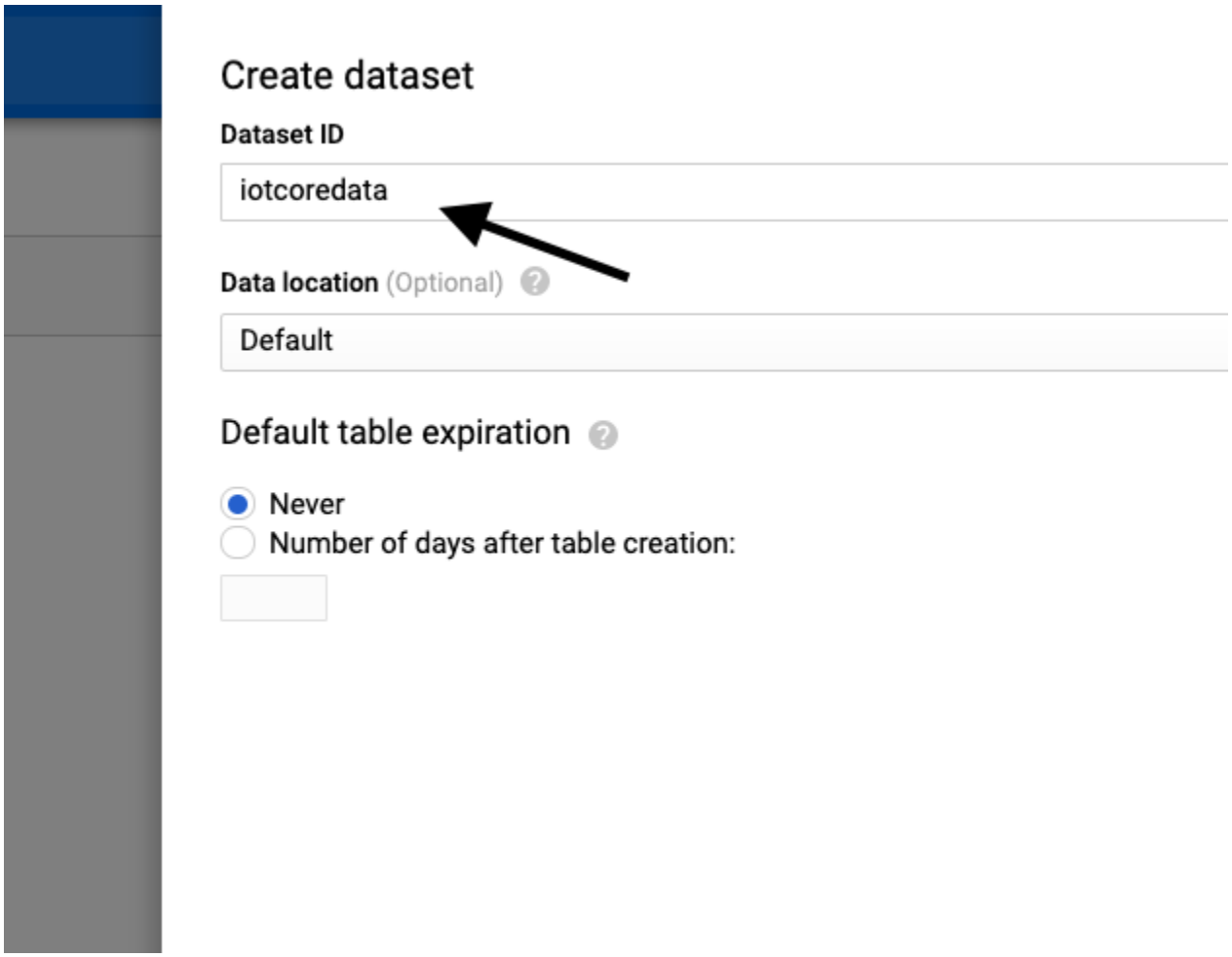
4.Create a temp folder in this bucket.



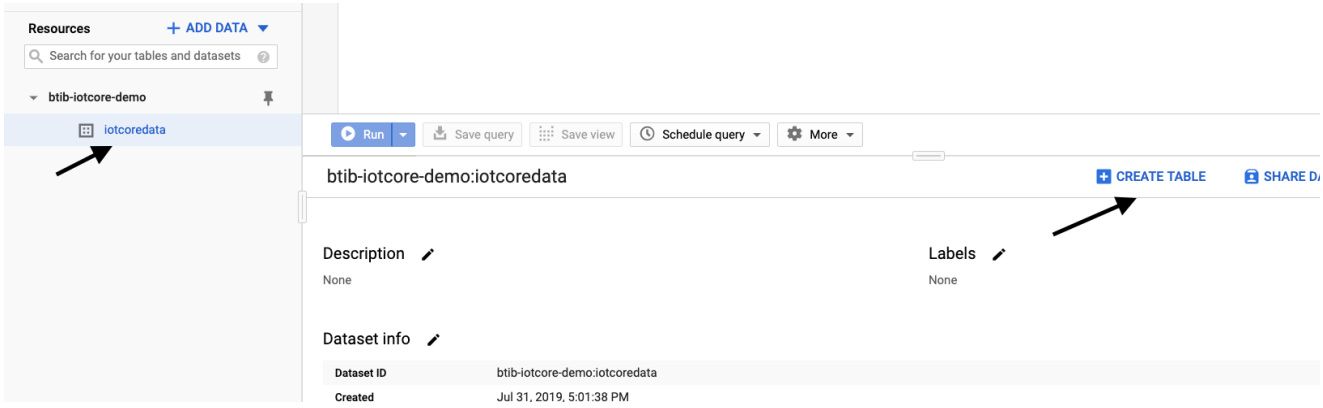
5. Open the BigQuery service (in the left panel), select your resource (on the left menu), then create a dataset.



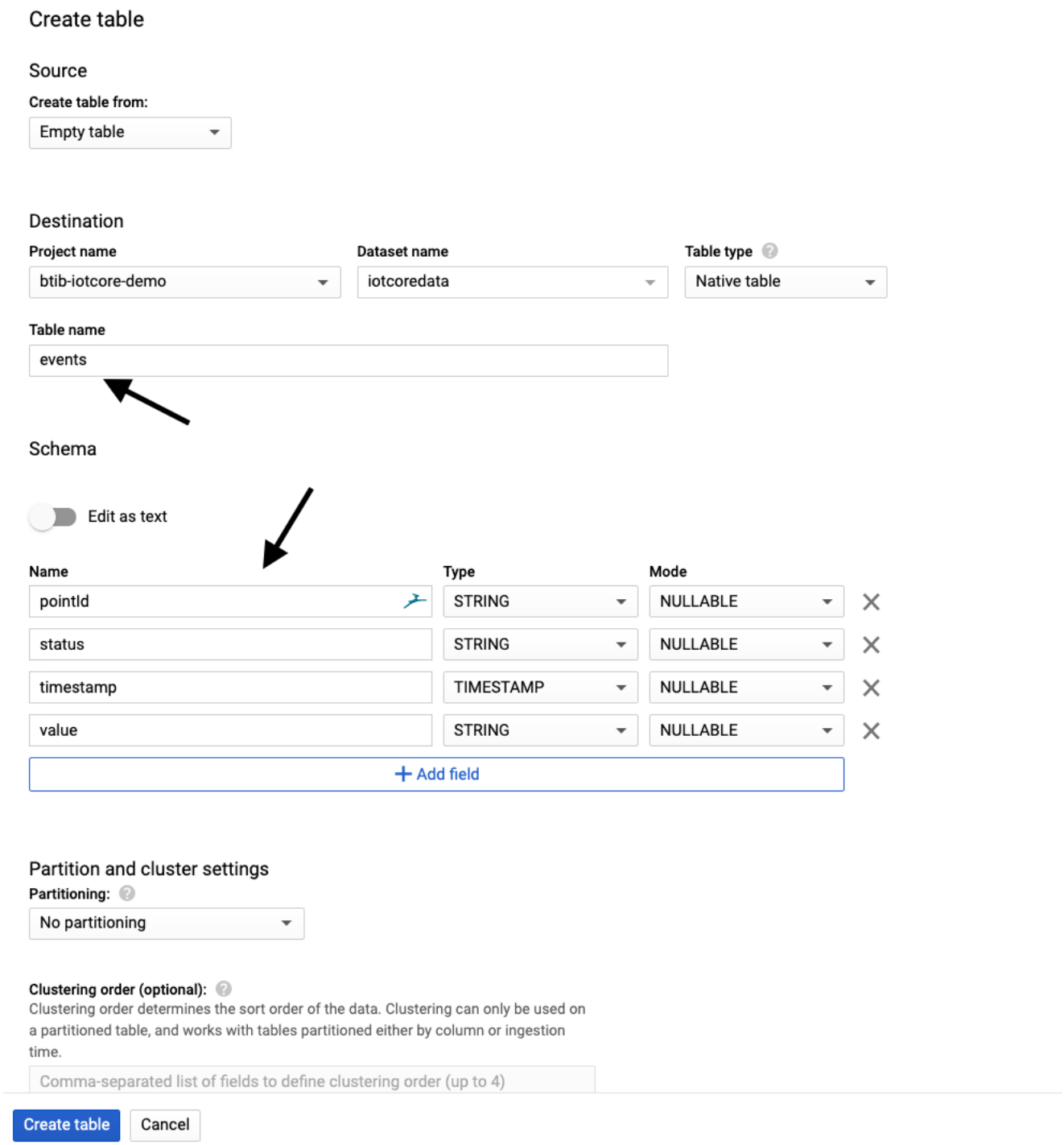
6. Give it a name and click on "Create"



7. Select the dataset on the left and create a table.

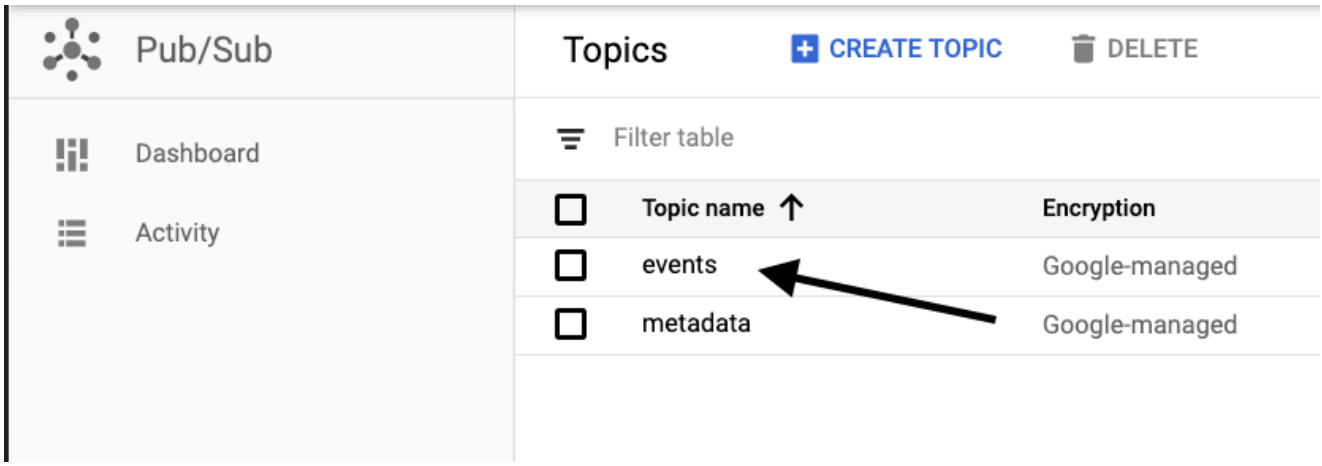


8. Give the table a name and add these columns (those are json fields of the message sent by niagara).

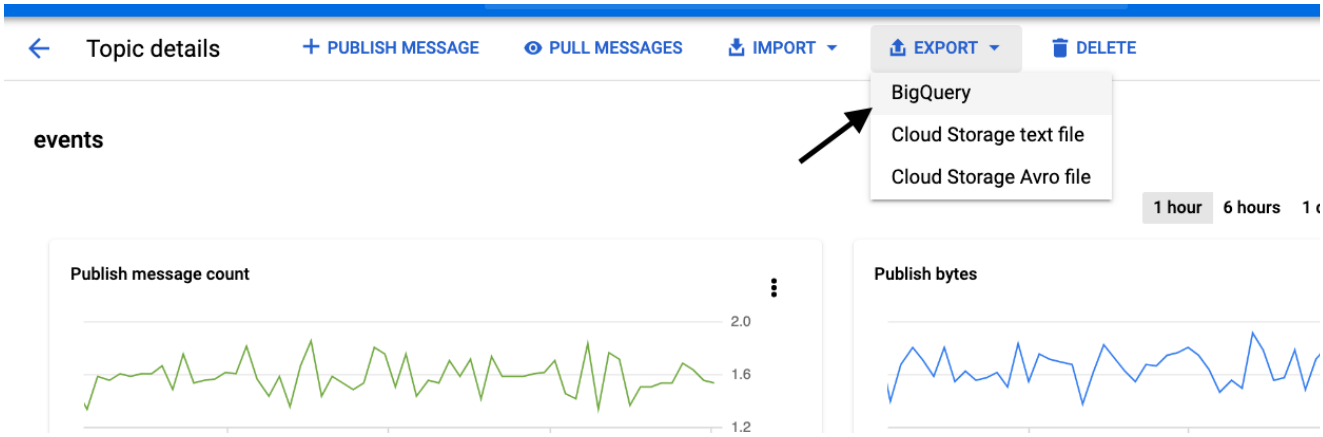


9. Now go to the pub/sub service.

10. Choose the topic you want to export to BigQuery.

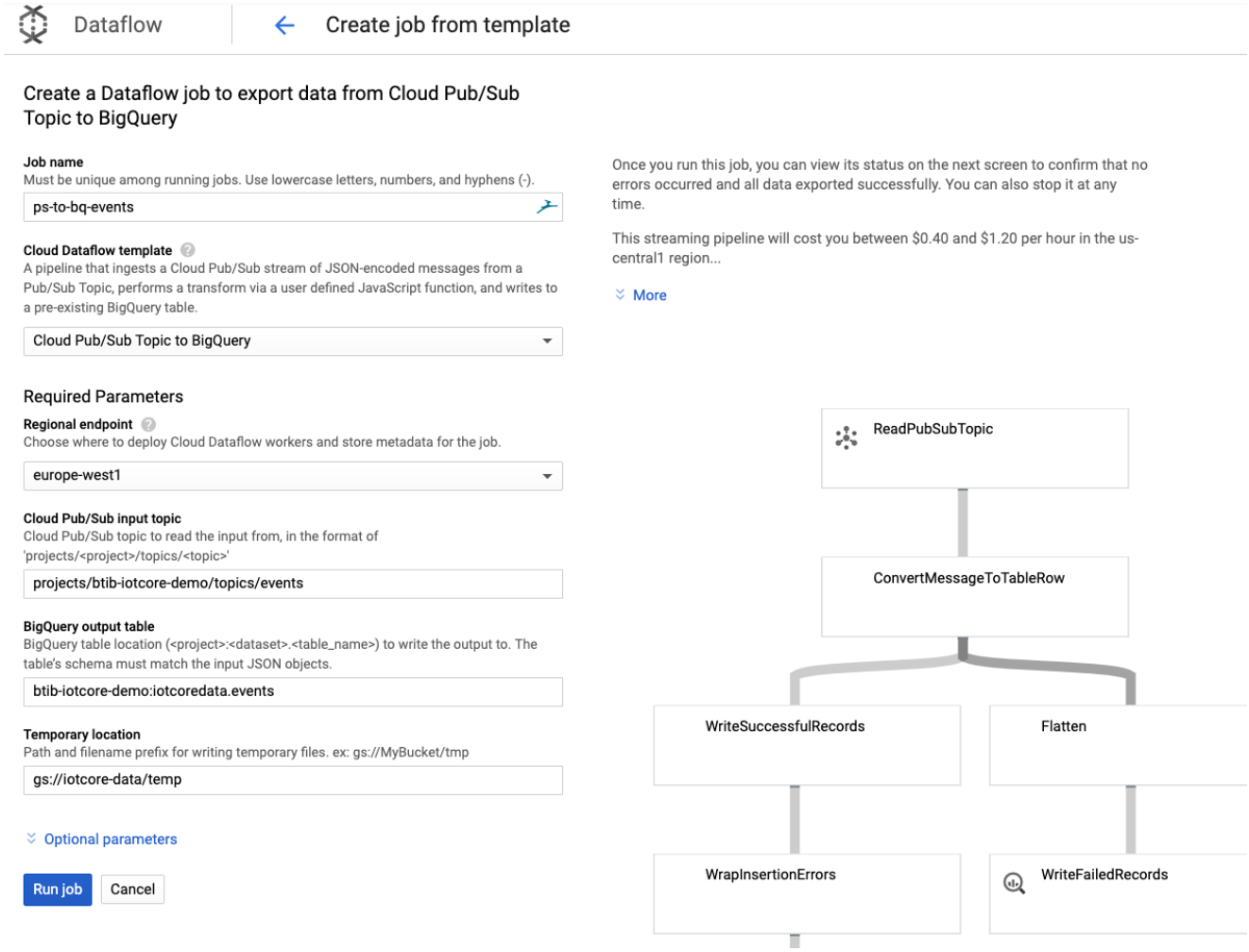


11. Hit Export to BigQuery.

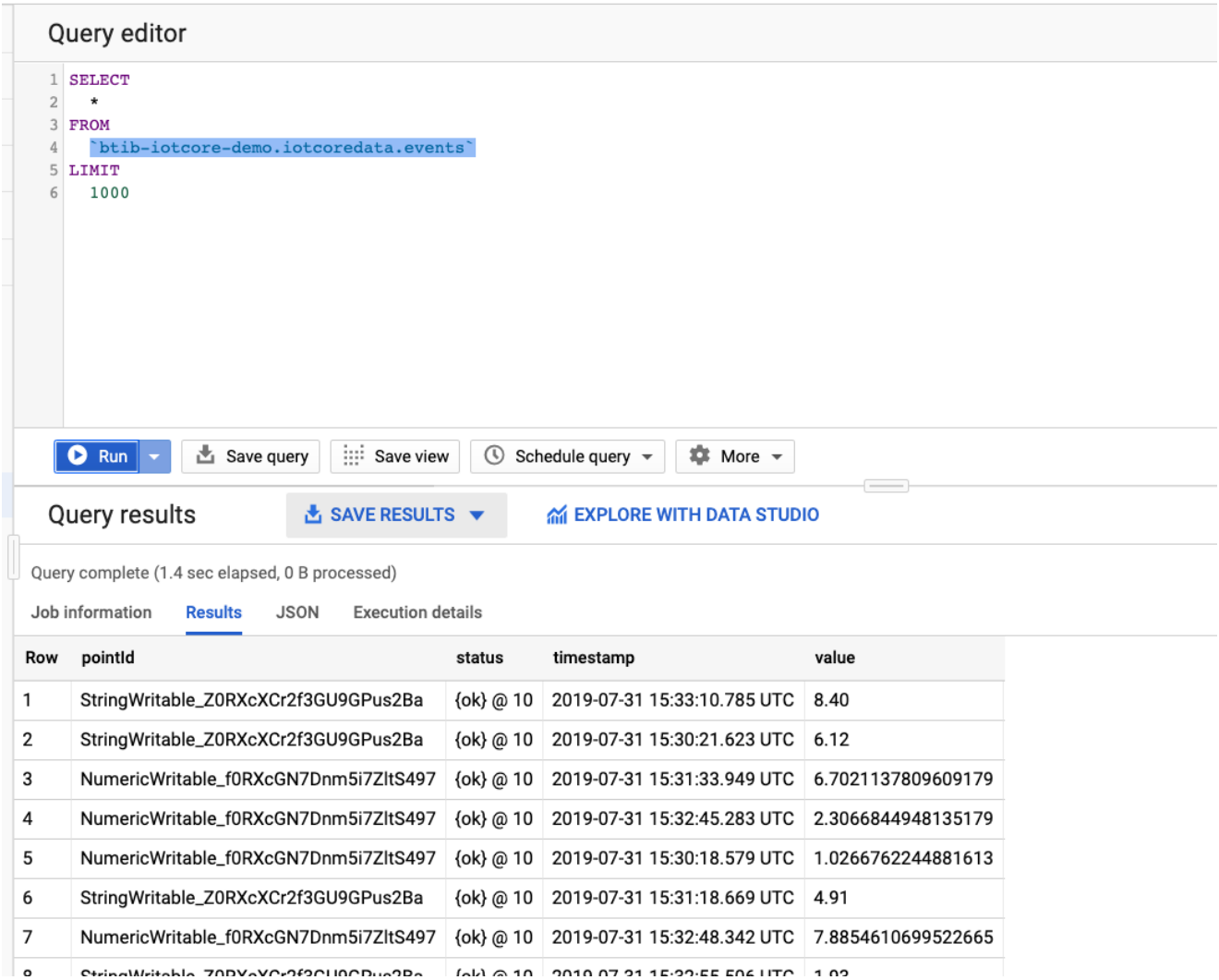


12. Now in the DataFlow

- Give a name to the job
- Choose a region where the data pipeline will be created
- Under "BigQuery output table" set your table path
- Under Temporary location set the path of the folder we created before on storage service.
- Then start the job: Example: gs://iotcore-data/temp

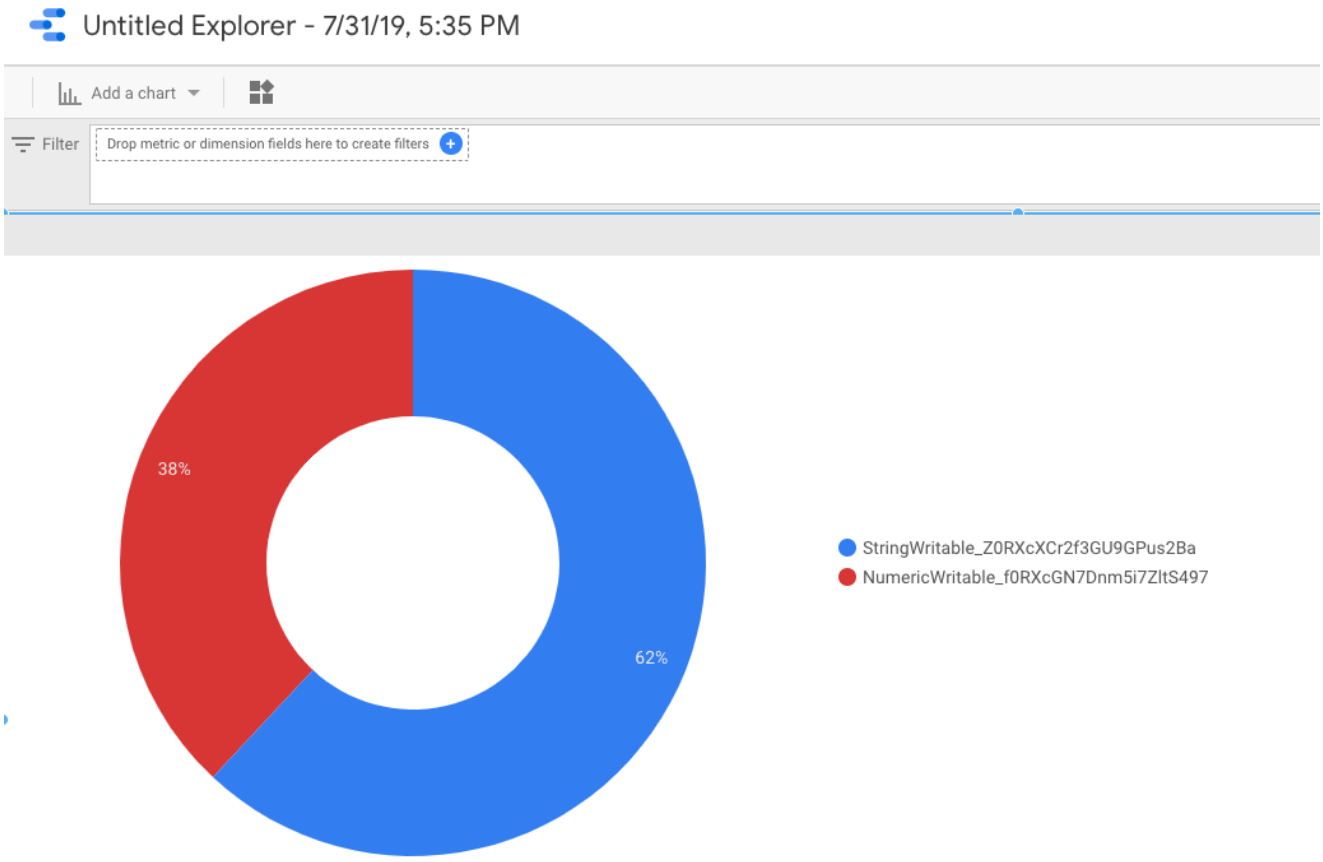


13. Type the query below in the query console and run it, you should see your data.



Tips

- To visualize your data click on the button **EXPLORE WITH DATA STUDIO** (between the query editor and the console with the results)



- To prepare, clean and transform your data you can use a Dataprep service (ETL service).