Contents

Introduction

In this document I will explain how to create a Table in a Dataset in Google BigQuery, using a CSV File.

This document accompanies the text “Kaye is Learning SQL”.
In the scripts that create the Training Database of the text “Kaye is Learning SQL”, the dataset is named “**kayeilsql**”. Although we will use the CSV files in this document, it is best to use the name “**kayeilsql**” for the dataset which will hold the training database tables, for consistency.

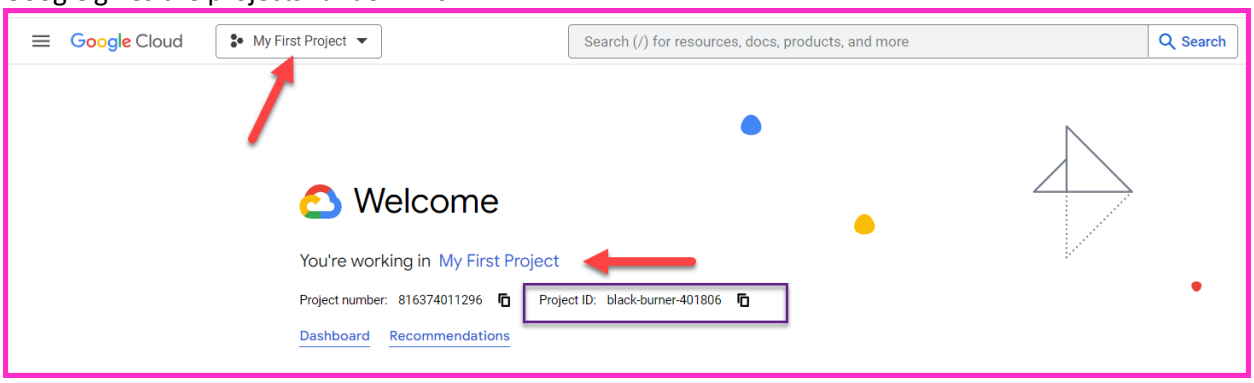
It is assumed that, you already have a free GCP (Google Cloud Platform) account.
Of course, you might already have access to GCP through your work, through your company.
If you don’t please open an account before you start working on this document.
If you accessed this document from GitHub, you will also find a document on how to open a free GCP account.

Let’s get going!

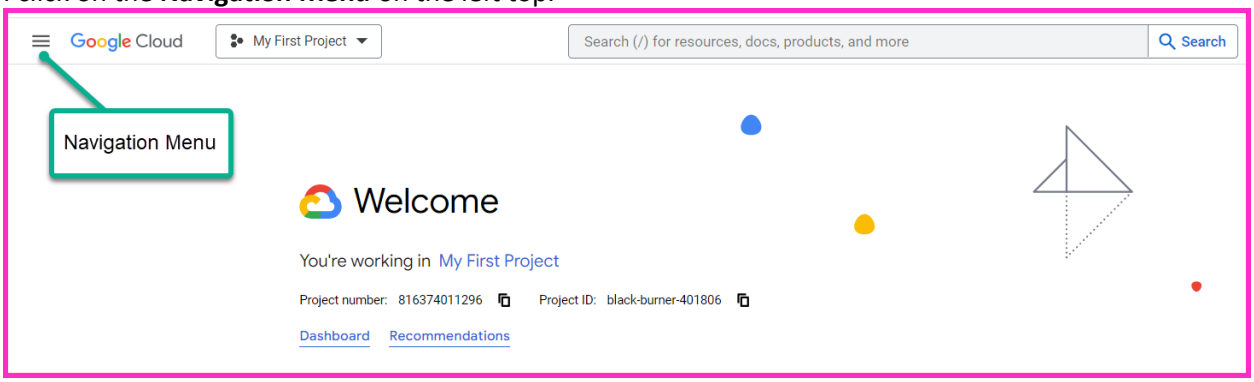
Go to Google Cloud Console

https://console.cloud.google.com/

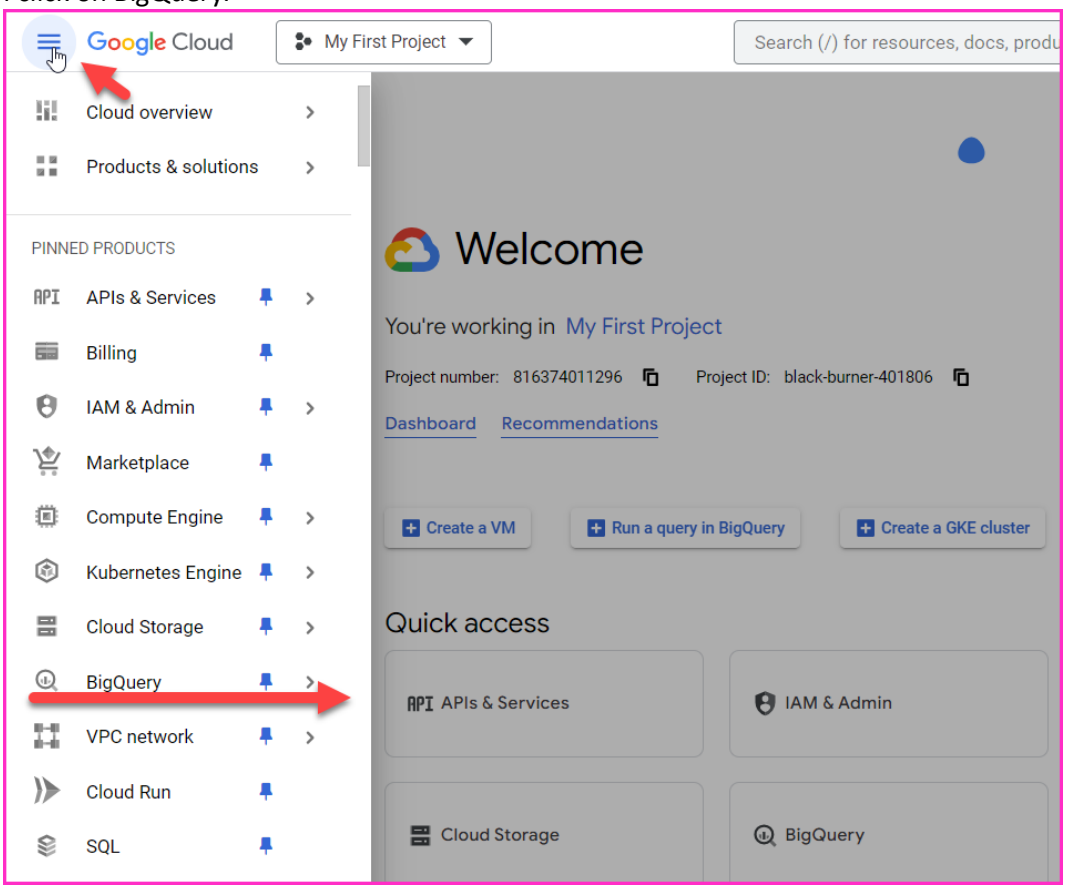
Here I am in the console, in the project named “My First Project”.
The ID of this project is displayed also.
Google gives the projects random IDs.



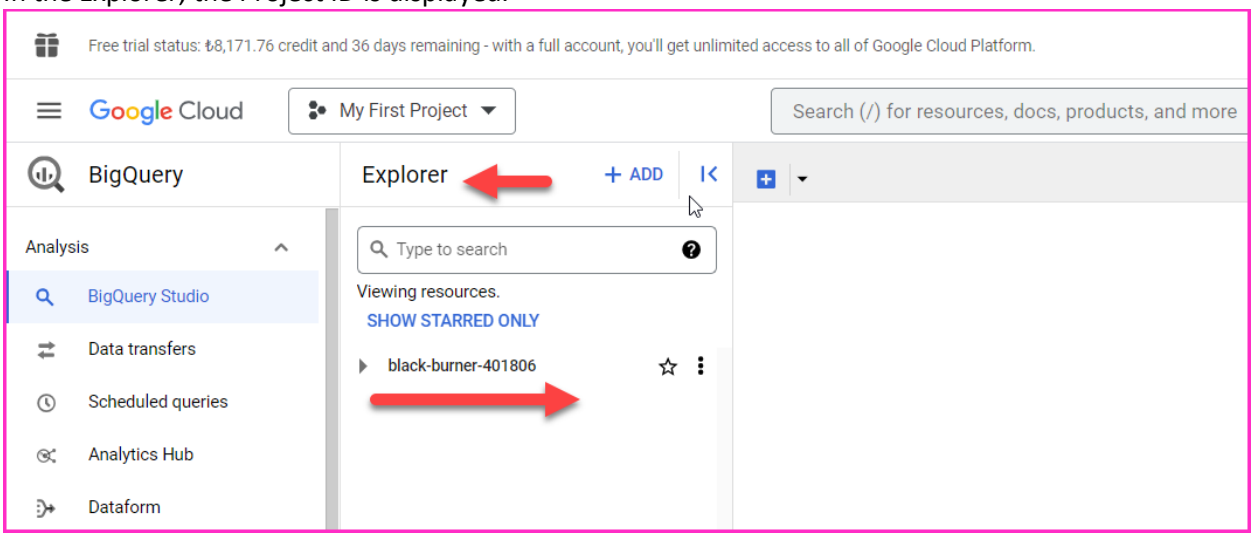
I click on the **Navigation Menu** on the left top.



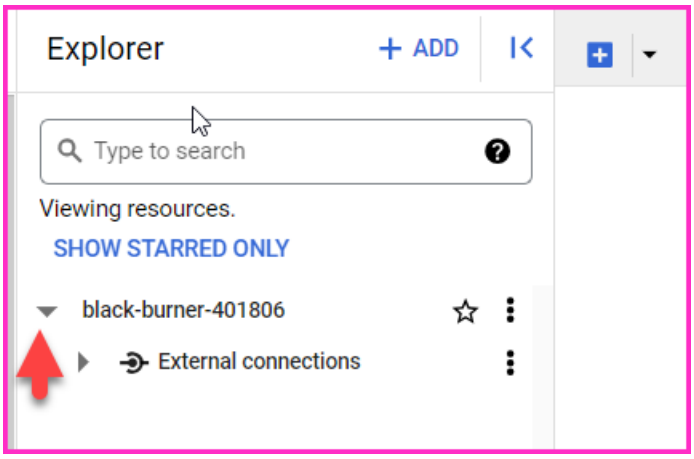
I can see BigQuery down below in the Menu Items.
I click on BigQuery.



Here I am in BigQuery.
In the Explorer, the Project ID is displayed.

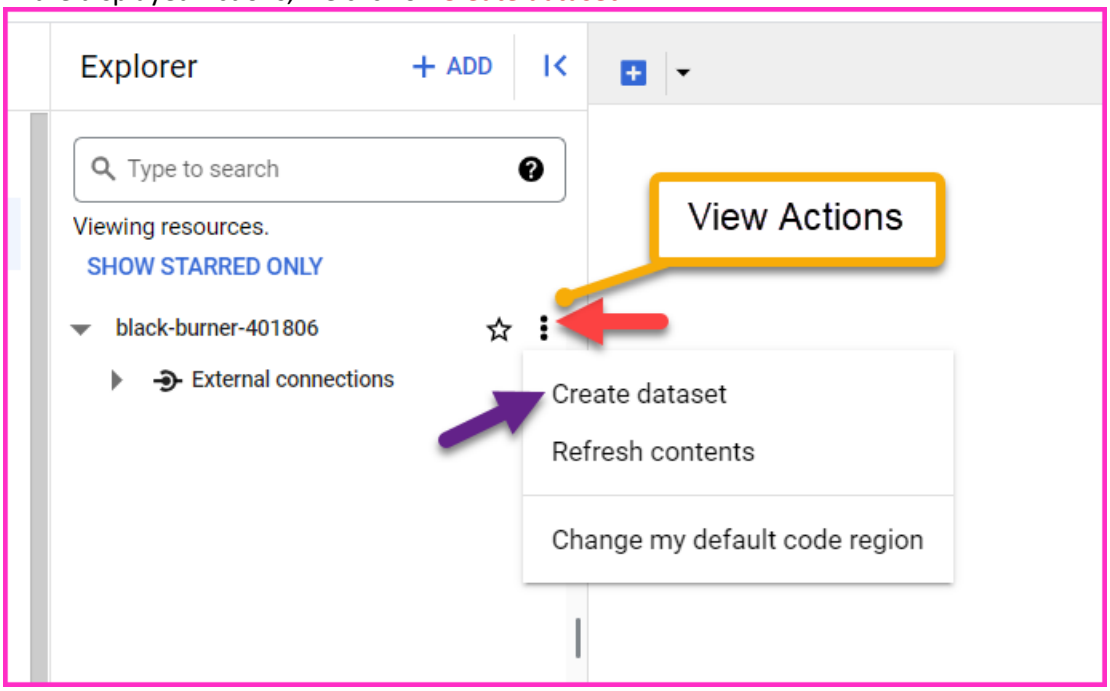


If we click on the small arrow on the left of the Project ID, **External connections** are displayed.
We are not interested in External connections at this moment in time.

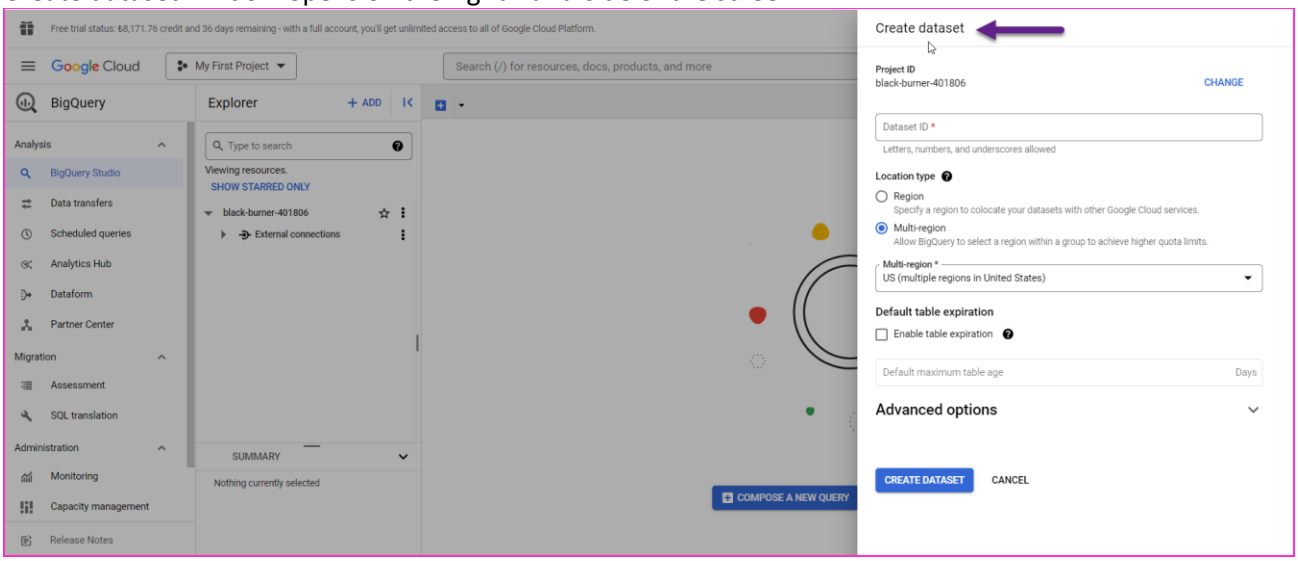


Create the Dataset

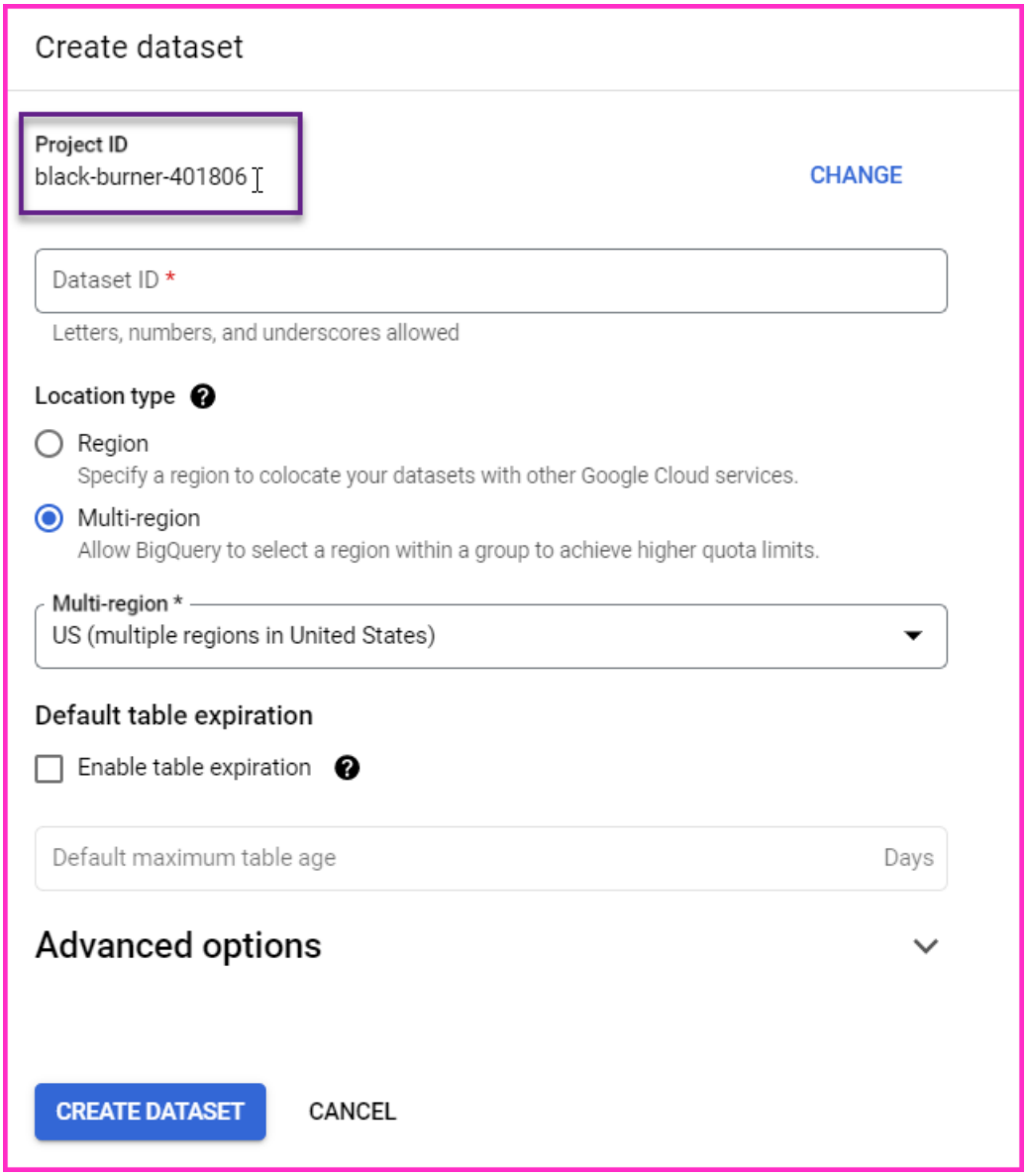
We click on the **three dots** at the right-hand-side of the Project ID.
This is the **View Actions** icon.
In the displayed Actions, we click on **Create dataset**.



Create dataset window opens on the right-hand-side of the screen.

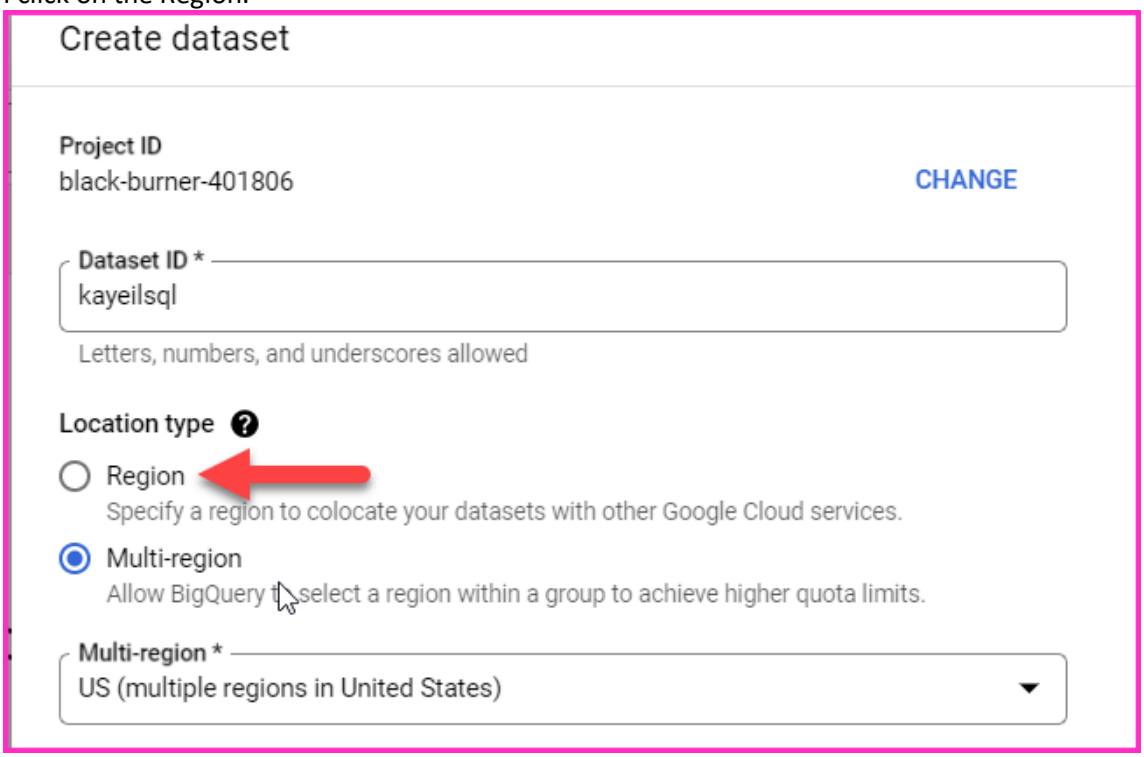


We can see our Project ID.
The Project Name and Project ID, does not matter for us.
They can have any name.
What we see in the Create dataset window are the Default Values.

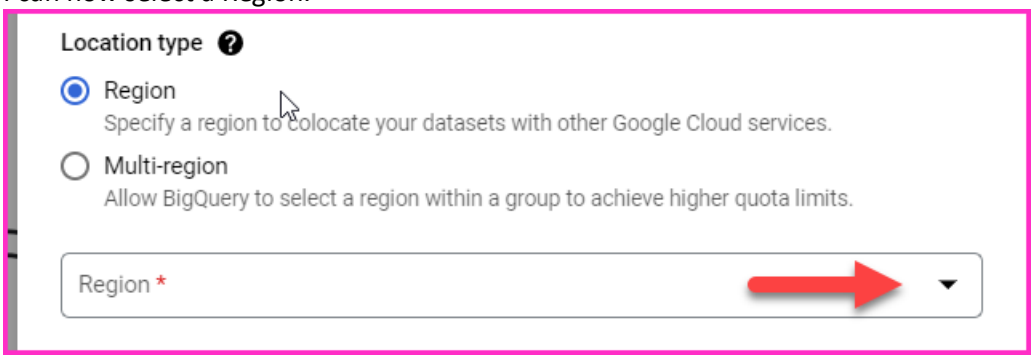


Dataset ID is what is important for us.
If we are creating the Training Tables for “Kaye is Learning SQL”, then, the Dataset ID will be “kayeilsql”.
It is in all lower case.

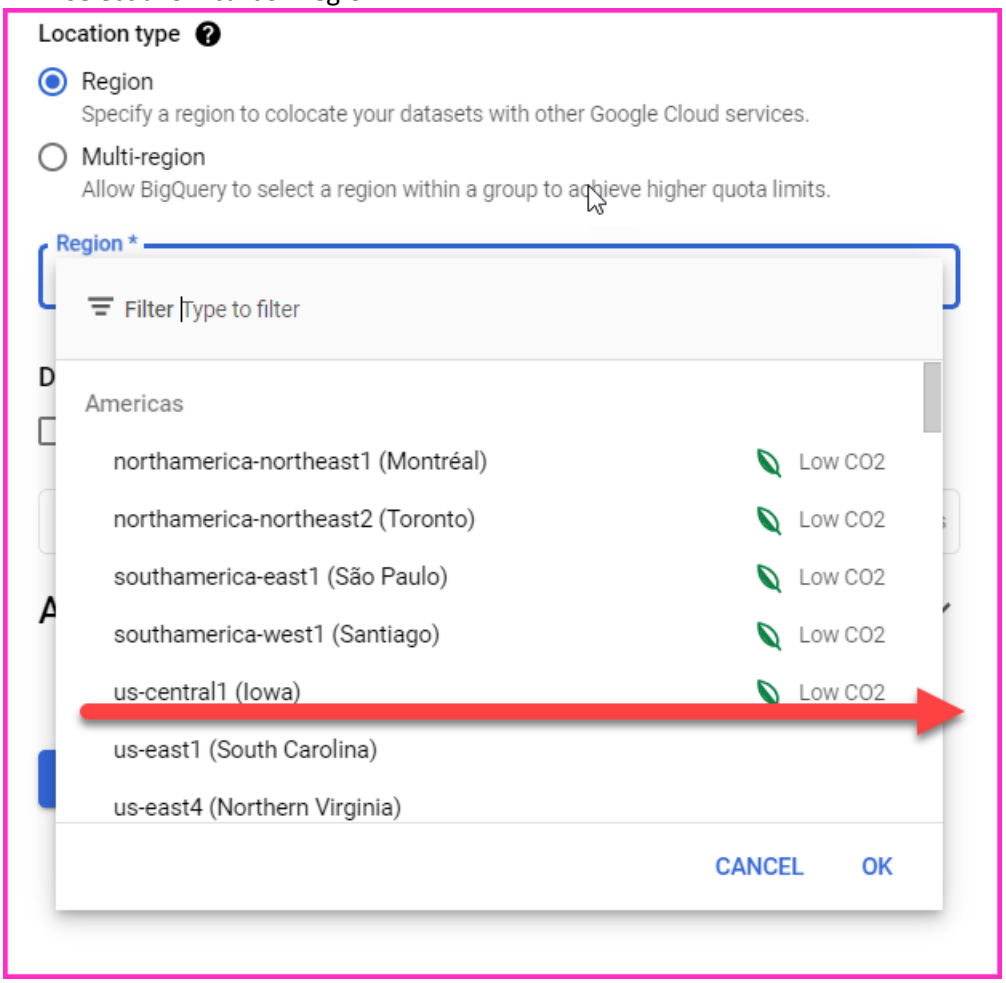
Next, I enter the Region.
I want a single region.
I click on the Region.



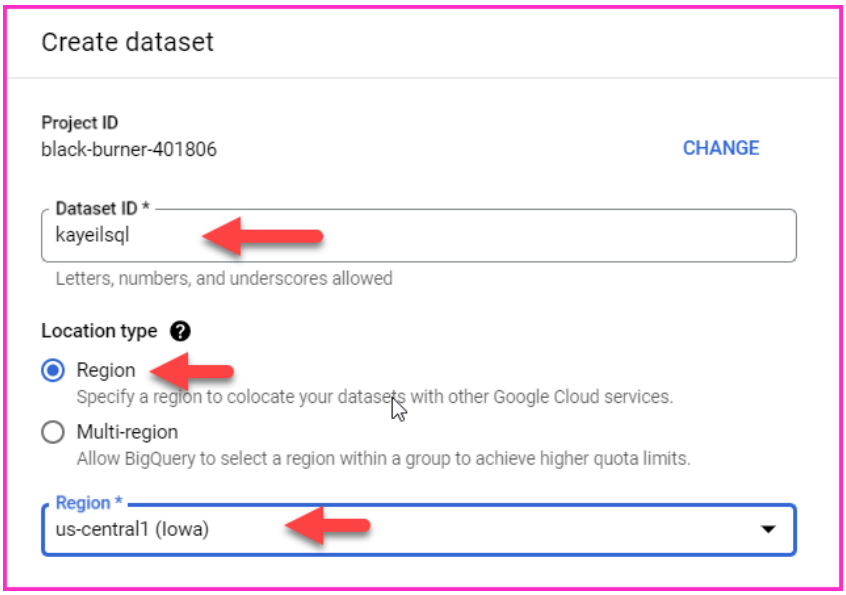
I can now select a Region.



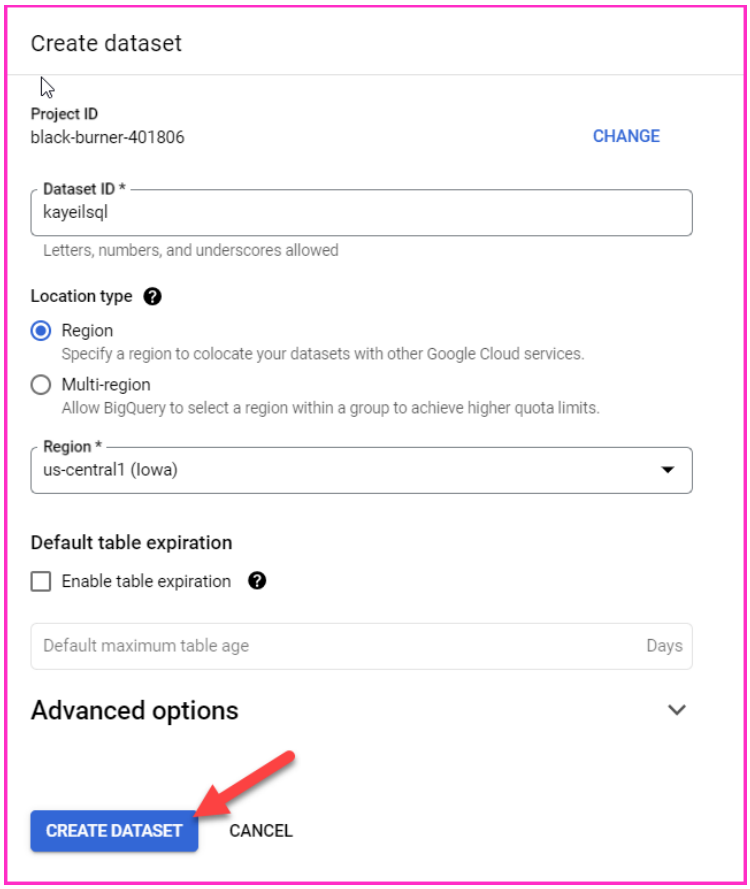
I will select a low carbon region.



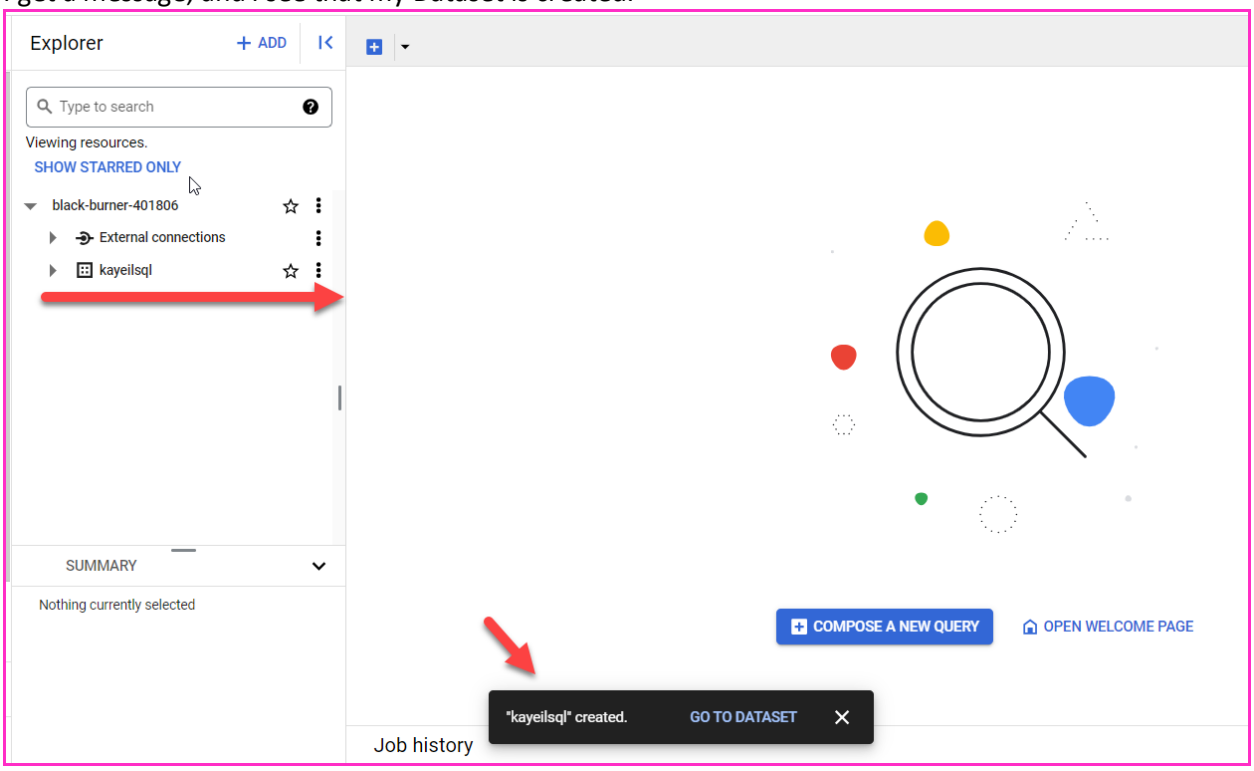
This is the data I entered.



I leave everything else as is.
I click on the **CREATE DATASET** button.

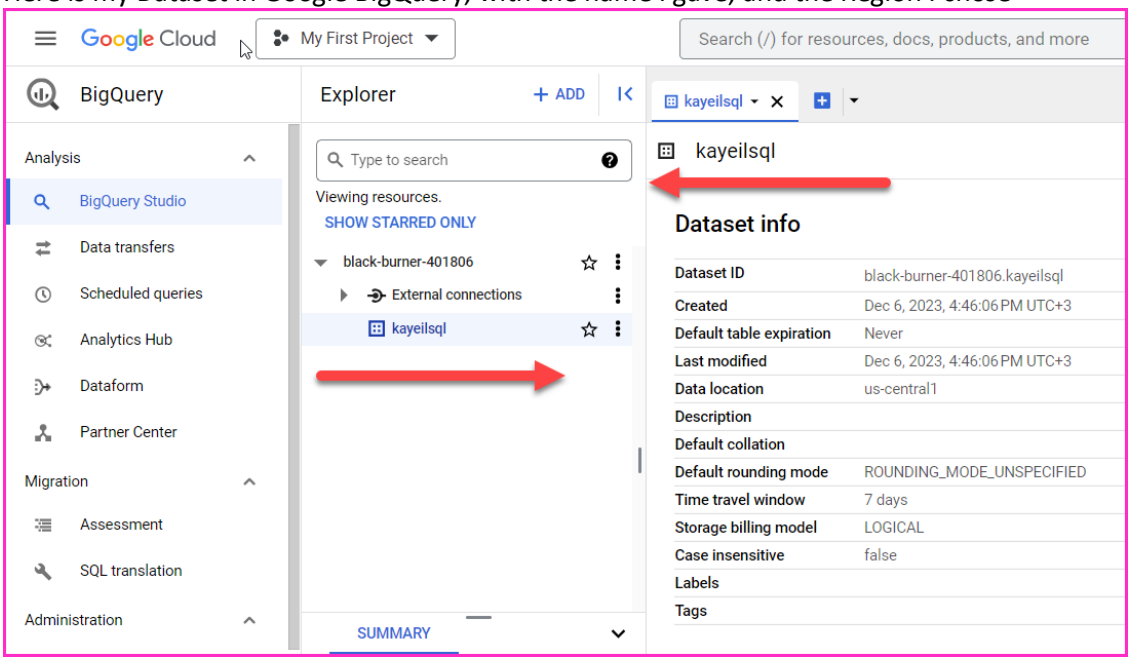


I get a message, and I see that my Dataset is created.



I dismiss / close the message, and click directly on my Dataset.

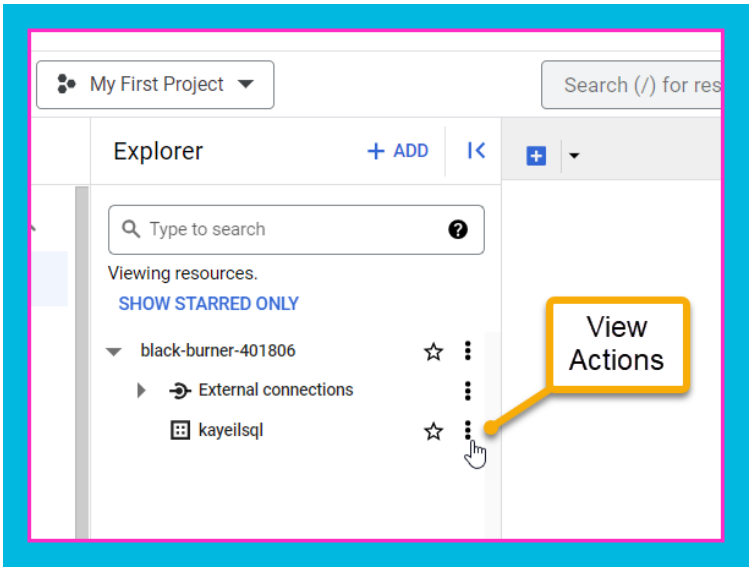
Here is my Dataset in Google BigQuery, with the name I gave, and the Region I chose



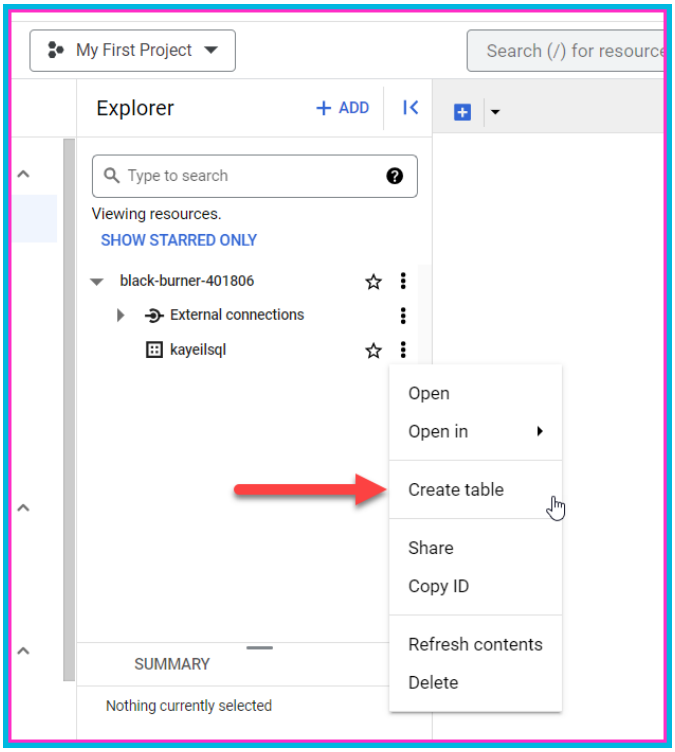
Create the Table

I will now create a table in this dataset in Google Cloud BigQuery, by using a .csv file in my local file.

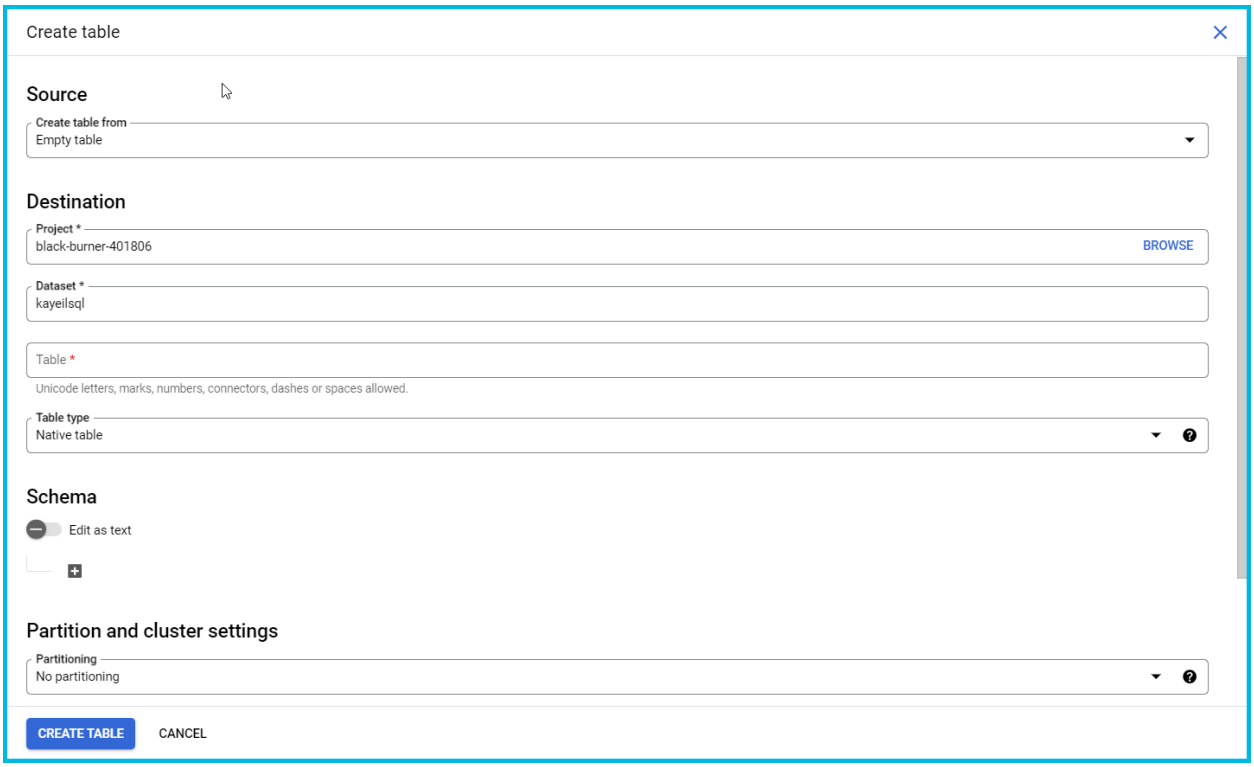
Click on View Actions.



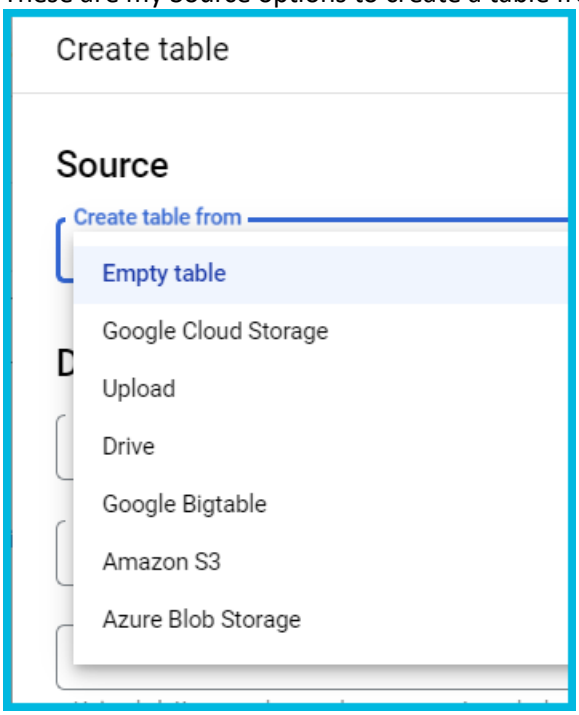
Click on Create Table.



Here is the Default Create Table window.



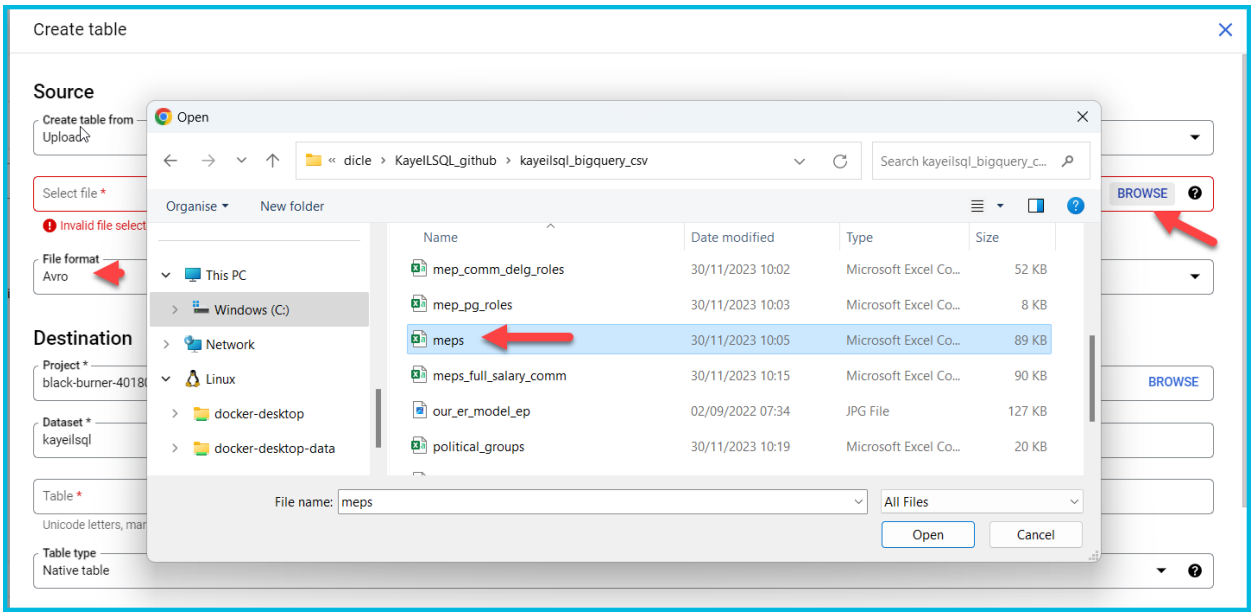
These are my Source options to create a table from:



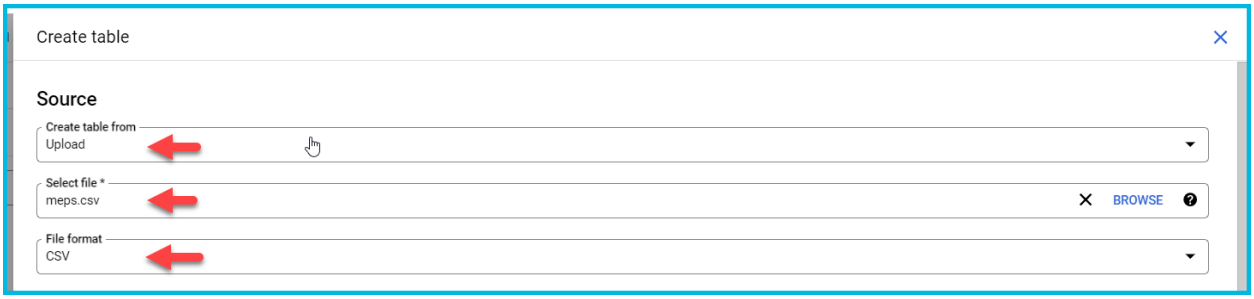
I select **Upload** as the Source of the table.

It gives me two new fields to fill in:

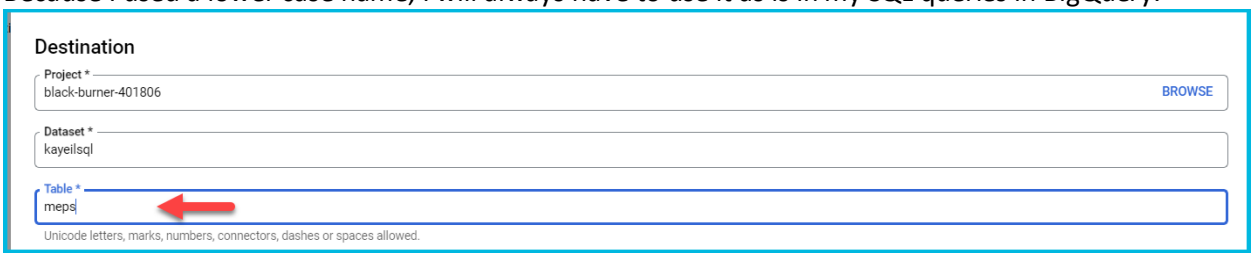
One. Browse to Select the file to be Uploaded.
Two. File format.



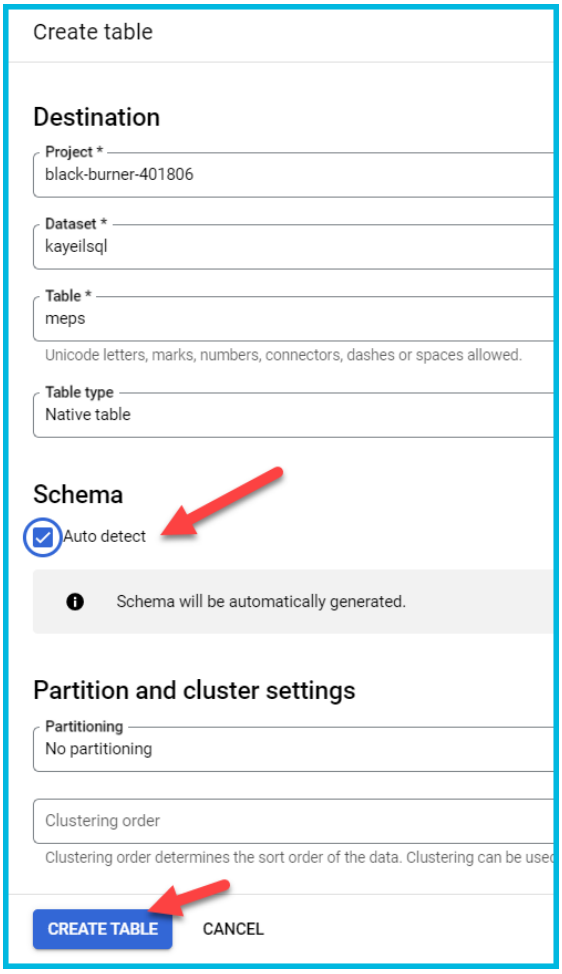
I upload the .csv file from my local.
File format is automatically filled in as CSV.



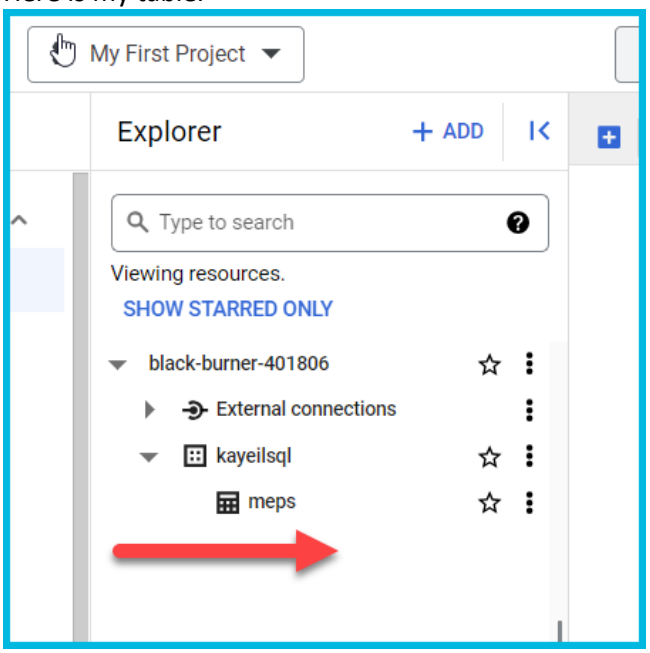
I name my table “meps”.
Please note that, table names are case sensitive in Google SQL.
Because I used a lower case name, I will always have to use it as is in my SQL queries in BigQuery.



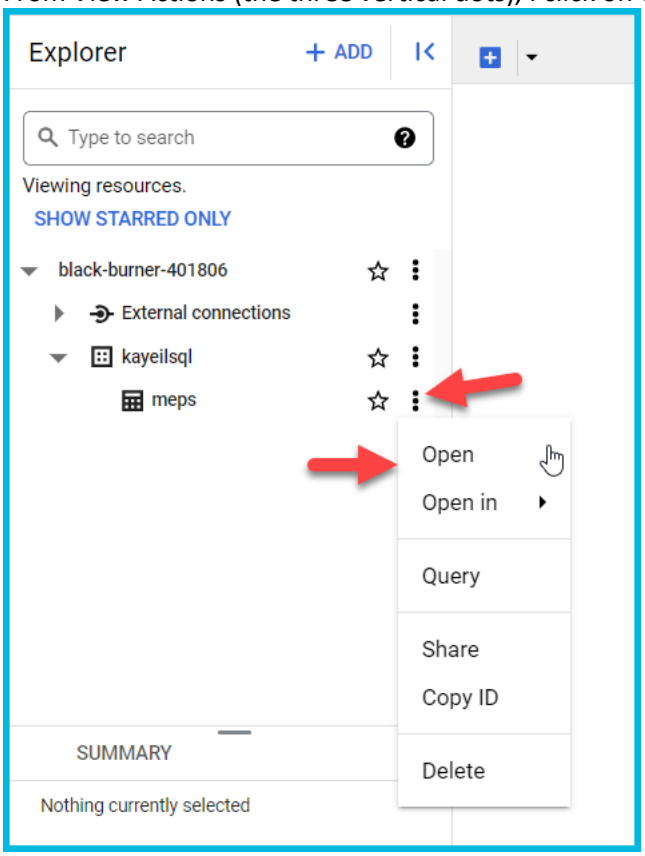
I choose “**Auto detect**“ for Schema, so that the table will be created in the same structure as the .csv file.
I click on the **CREATE TABLE** button.



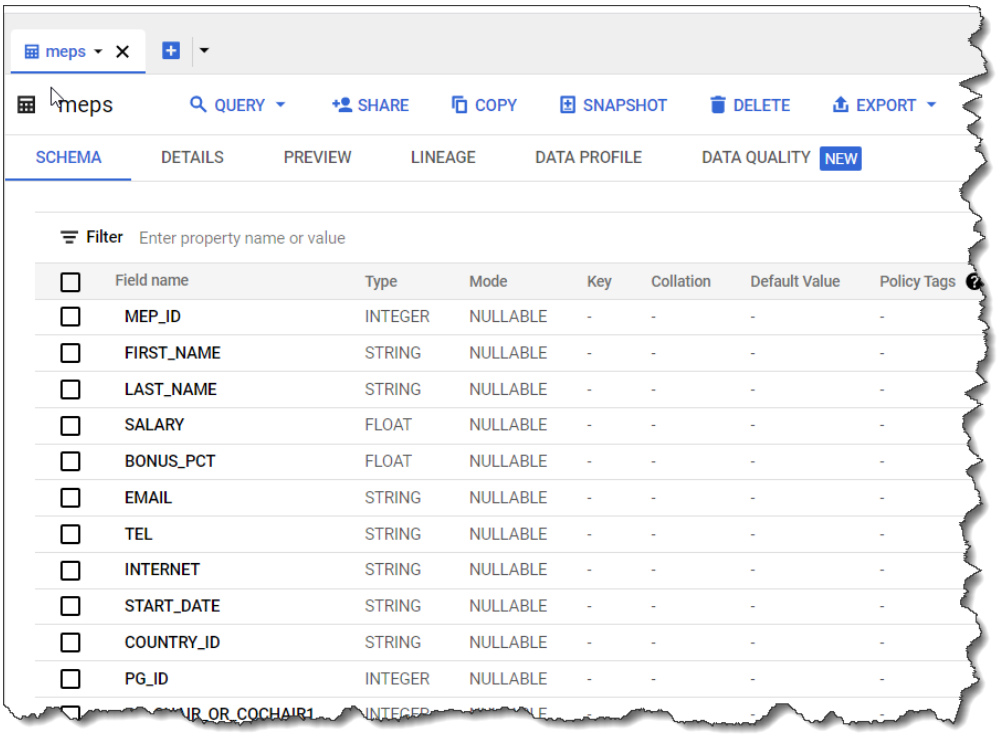
Here is my table.



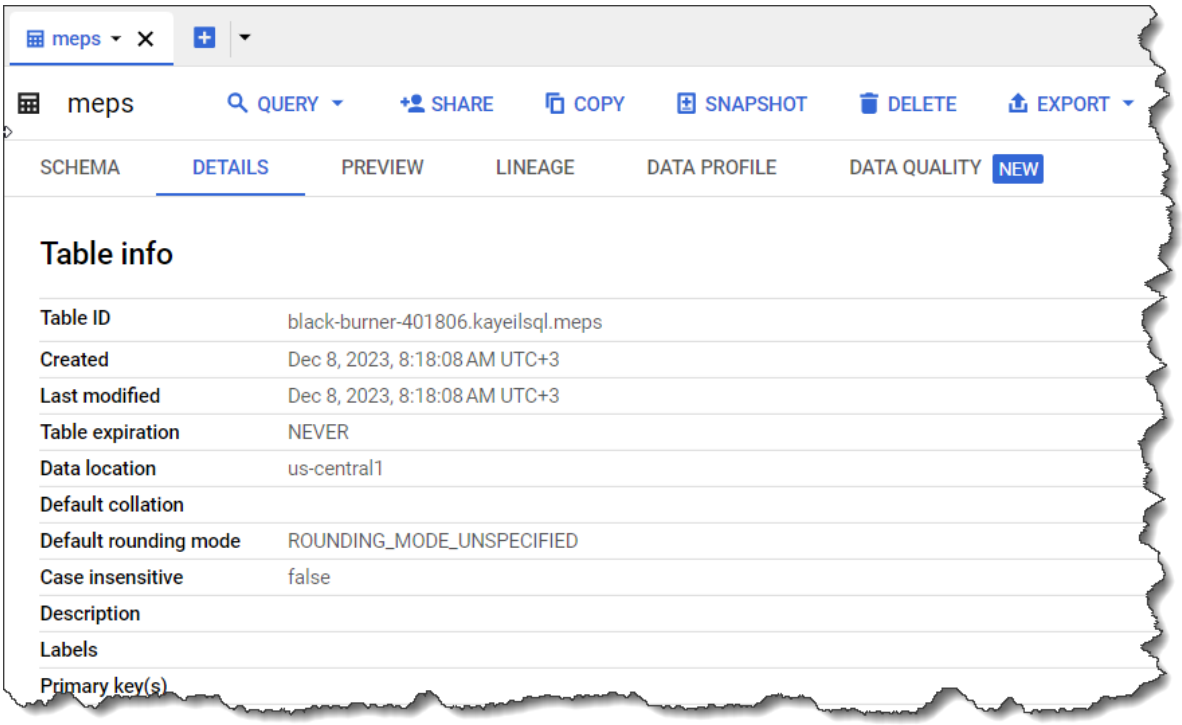
From View Actions (the three vertical dots), I click on Open.



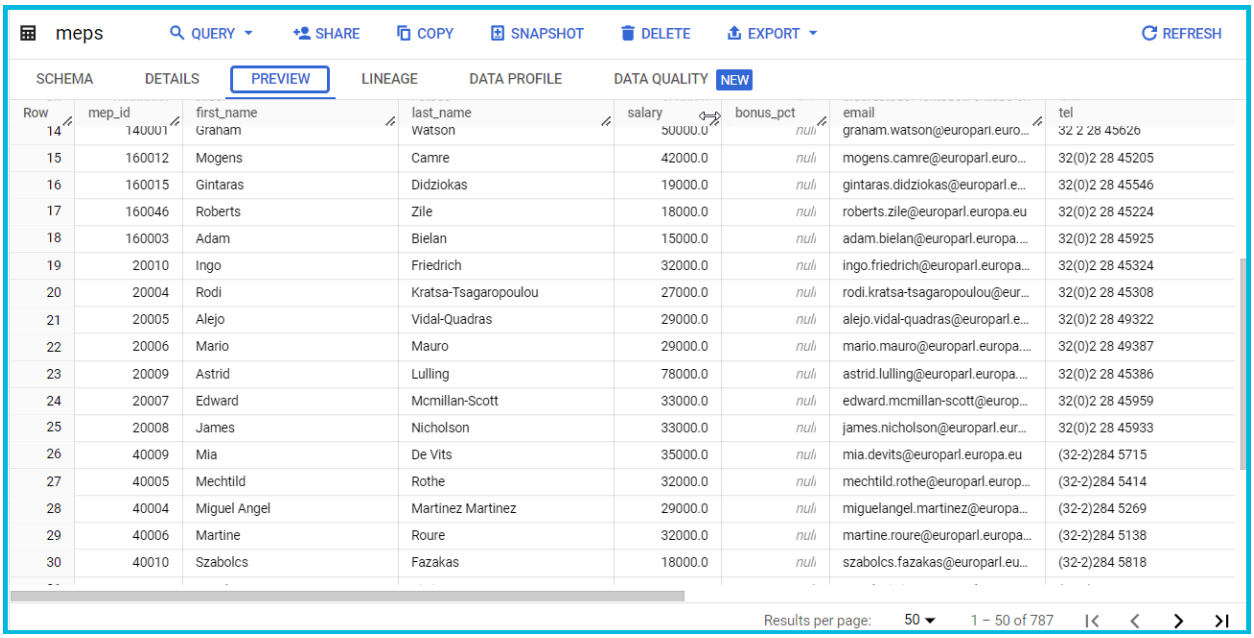
SCHEMA Tab



DETAILS Tab



PREVIEW Tab



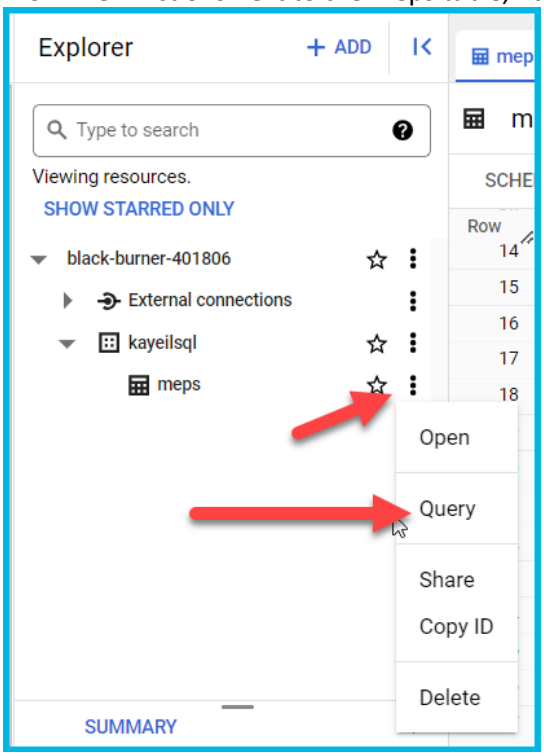
Row	mep_id	first_name	last_name	salary	bonus_pct	email	tel
14	140001	Graham	Watson	50000.0	null	graham.watson@europarl.euro...	32 2 28 45626
15	160012	Mogens	Camre	42000.0	null	mogens.camre@europarl.euro...	32(0)2 28 45205
16	160015	Gintaras	Didziokas	19000.0	null	gintaras.didziokas@europarl.e...	32(0)2 28 45546
17	160046	Roberts	Zile	18000.0	null	roberts.zile@europarl.europa.eu	32(0)2 28 45224
18	160003	Adam	Bielan	15000.0	null	adam.bielan@europarl.europa....	32(0)2 28 45925
19	20010	Ingo	Friedrich	32000.0	null	ingo.friedrich@europarl.europa...	32(0)2 28 45324
20	20004	Rodi	Kratsa-Tsagaropoulou	27000.0	null	rodi.kratsa-tsagaropoulou@eur...	32(0)2 28 45308
21	20005	Alejo	Vidal-Quadras	29000.0	null	alejo.vidal-quadras@europarl.e...	32(0)2 28 49322
22	20006	Mario	Mauro	29000.0	null	mario.mauro@europarl.europa....	32(0)2 28 49387
23	20009	Astrid	Lulling	78000.0	null	astrid.lulling@europarl.europa....	32(0)2 28 45386
24	20007	Edward	Mcmillan-Scott	33000.0	null	edward.mcmillan-scott@europ...	32(0)2 28 45959
25	20008	James	Nicholson	33000.0	null	james.nicholson@europarl.eur...	32(0)2 28 45933
26	40009	Mia	De Vits	35000.0	null	mia.devits@europarl.europa.eu	(32-2)284 5715
27	40005	Mechtild	Rothe	32000.0	null	mechtild.rothe@europarl.europ...	(32-2)284 5414
28	40004	Miguel Angel	Martinez Martinez	29000.0	null	miguelangel.martinez@europa...	(32-2)284 5269
29	40006	Martine	Roure	32000.0	null	martine.roure@europarl.europa...	(32-2)284 5138
30	40010	Szabolcs	Fazakas	18000.0	null	szabolcs.fazakas@europarl.eu...	(32-2)284 5818

This is the easiest and quickest way to create a table, and insert data in it, that I have come across so far.

Query the Table

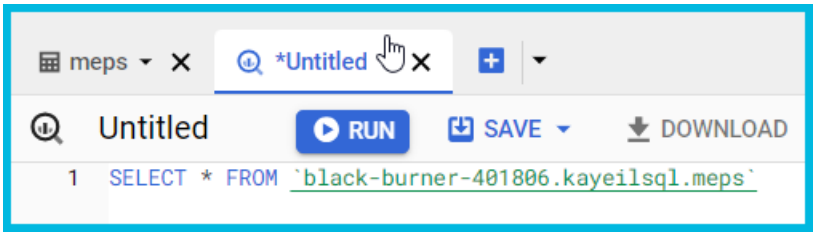
Now, we will query the data in SQL Worksheet.

From View Actions next to the meps table, I click on Query.

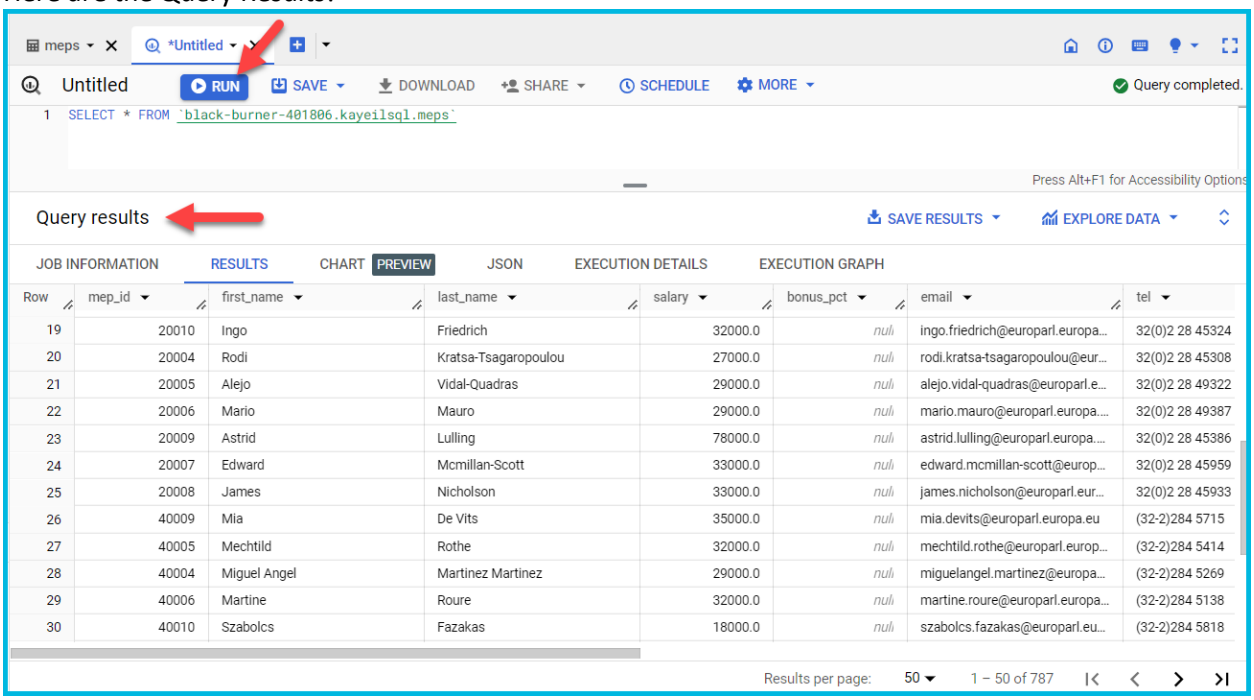


It opens an Editor, and gives me a SELECT statement with no columns, but with the complete syntax for the table name: **project_name.dataset_name.table_name**. Thank you Google BigQuery!
Also, because there are yet no columns, a syntax error is displayed.

I change the query to select all columns.
I clear the LIMIT clause.



I click on the RUN button.
Here are the Query Results!



Row	mep_id	first_name	last_name	salary	bonus_pct	email	tel
19	20010	Ingo	Friedrich	32000.0	null	ingo.friedrich@europarl.europa...	32(0)2 28 45324
20	20004	Rodi	Kratsa-Tsagaropoulou	27000.0	null	rodi.kratsa-tsagaropoulou@eur...	32(0)2 28 45308
21	20005	Alejo	Vidal-Quadras	29000.0	null	alejo.vidal-quadras@europarl.e...	32(0)2 28 49322
22	20006	Mario	Mauro	29000.0	null	mario.mauro@europarl.europa....	32(0)2 28 49387
23	20009	Astrid	Lulling	78000.0	null	astrid.lulling@europarl.europa....	32(0)2 28 45386
24	20007	Edward	Mcmillan-Scott	33000.0	null	edward.mcmillan-scott@europ...	32(0)2 28 45959
25	20008	James	Nicholson	33000.0	null	james.nicholson@europarl.eur...	32(0)2 28 45933
26	40009	Mia	De Vits	35000.0	null	mia.devits@europarl.europa.eu	(32-2)284 5715
27	40005	Mechtild	Rothe	32000.0	null	mechtild.rothe@europarl.europ...	(32-2)284 5414
28	40004	Miguel Angel	Martinez Martinez	29000.0	null	miguelangel.martinez@europa...	(32-2)284 5269
29	40006	Martine	Roure	32000.0	null	martine.roure@europarl.europa...	(32-2)284 5138
30	40010	Szabolcs	Fazakas	18000.0	null	szabolcs.fazakas@europarl.eu...	(32-2)284 5818

This is how I create a table in Google BigQuery with full data, using a CSV file from my local.
Very simple!

I wish you all the best; health, courage, hope, and strength and the will to go after your dreams.

Dicle Ertan Ülger