Follow the instructions below to set up your local development environment. You can also use your Google Cloud Instance for running this project. In both the cases, you will need to obtain the credentials file and create a dataset on BigQuery where you will save your tables.

## 1) Install the google cloud SDK library :

Run the following command in your terminal to install the required library:

pip install --upgrade google-cloud-storage click

pip install google-cloud-bigquery

# 2) Open the URL below:

https://cloud.google.com/bigquery/docs/quickstarts/quickstart-client-libraries#bigquery-si mple-app-local-dev-python (Make sure you are signed in using your cloud.cs account)

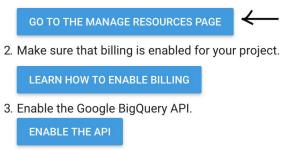
# 3) Create a Project by clicking on the button:

If you already created a project before, you can use the same project and skip to step 5. Otherwise, you can follow step 3 and 4 to create a new project.

Click on the "GO TO THE MANAGE RESOURCES PAGE" button.

Before you begin

1. Select or create a GCP project.



# 4) Create a new project

Click on create a project button on the top and fill in details about your project as shown below. Click on the create button to finish creating your project. Make sure you select the Billing Account as <u>COMS 4111 Introduction to Databases</u>.

#### New Project

A	You have 21 projects remaining in your quota. Request an increase or delete projects. Learn more		
	MANAGE QUOTAS		
Project I	Name *		
-	project-2	0	
•	ccount * 4111 Introduction to Databases	•	
	rges for this project will be billed to the account you sele	ect here.	
	ation * organization	BROWSE	
Parent o	organization or folder		
CREAT	E CANCEL		

### 5) Click on the "Enable API" button

Once the project has been created, click on the "ENABLE API" button in the URL which has been mentioned above.

# Before you begin

1. Select or create a GCP project.

GO TO THE MANAGE RESOURCES PAGE

2. Make sure that billing is enabled for your project.

LEARN HOW TO ENABLE BILLING

3. Enable the Google BigQuery API.



6) Select the project which you created in step 5.

Register your application for BigQuery API in Google Cloud Platform
Google Cloud Platform allows you to manage your application and monitor API usage.
Select a project where your application will be registered You can use one project to manage all of your applications, or you can create a different project for each application.
w4111-project-2
Continue

Once, you have selected the project, the BigQuery API will get enabled.

# 7) Select "Go to the Create Service Account Key Page" button.

Follow the instructions, as provided in the image below.

4. Set up authentication:

a. In the GCP Console, go to the Create service account key page.

GO TO THE CREATE SERVICE ACCOUNT KEY PAGE

b. From the Service account drop-down list, select New service account.

c. In the Service account name field, enter a name .

d. From the **Role** drop-down list, select **Project > Owner**.

$\equiv$ Google Cloud Platform so w4111-	project-2 🔻	۹				
← Create service account key						
Service account New service account	Role Owner Selected Vowner Project App Engine BigQuery Billing Cloud IAP Cloud IAP Cloud Trace Datastore Error Reporting IAM	✓ Owner Editor Viewer Browser				
	Logging Monitoring Organization Policy Reserve Partner	6 6 6				

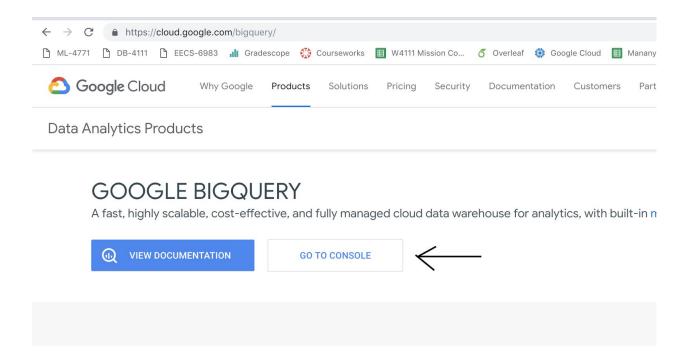
Click on the "Create" button.

A .json file containing the required credentials will be downloaded automatically.

# 8) Open BigQuery console:

Click on the URL <u>https://cloud.google.com/bigquery/</u> and choose the "Go To Console" button.

You can also follow the instructions at <u>https://cloud.google.com/bigquery/docs/datasets</u> to create your own dataset using the Python API.



### 9) Create a new dataset:

To create a new dataset click on the button below. Fill in the details and click on the create button.

ery editor	-+ COMPOSE NEW QUERY
ery editor	
Run query 🔽 Save query 🛛 🔡 Save view 🖉 More 👻	•
	CREATE DATASET I UNPIN PROJECT
Datasets and tables available Use the Resources tree to view your data, or create a new dataset us	ing the controls above

C 

 https://console.cloud.google.com/bigquery?\_ga=2.39075875.-1260141652.1536963228&project=w4111-project-2-222900&folder&organizationId&...
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 G Gesture Int The Hindu
 C Other Bookmarks

	oject-2 👻 Q	Create dataset
BigQuery BETA () Go to Classic UI		Dataset ID dataset
Query history	Query editor	Data location (Optional)
Saved queries	1	Default
Job history		Never
Transfers 🛛		Number of days after table creation:
Resources + ADD DATA -		
Q. Search for your tables and datasets		
→ w4111-project-2		
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	Datasets	
	Use the Resources tree to view your de	Create dataset Cancel