

Step by Step:

1. Enter PGADMIN in the computer, and Enter password
2. Click Server and Enter the requested password
3. Create Database Bike\_sharing

The image consists of two screenshots of the pgAdmin 4 interface. The top screenshot shows the main dashboard with the 'Create' button highlighted in the left sidebar. The bottom screenshot shows the 'Create - Database' dialog box with the 'Database' field set to 'Bike\_sharing' and the 'Owner' set to 'postgres'.

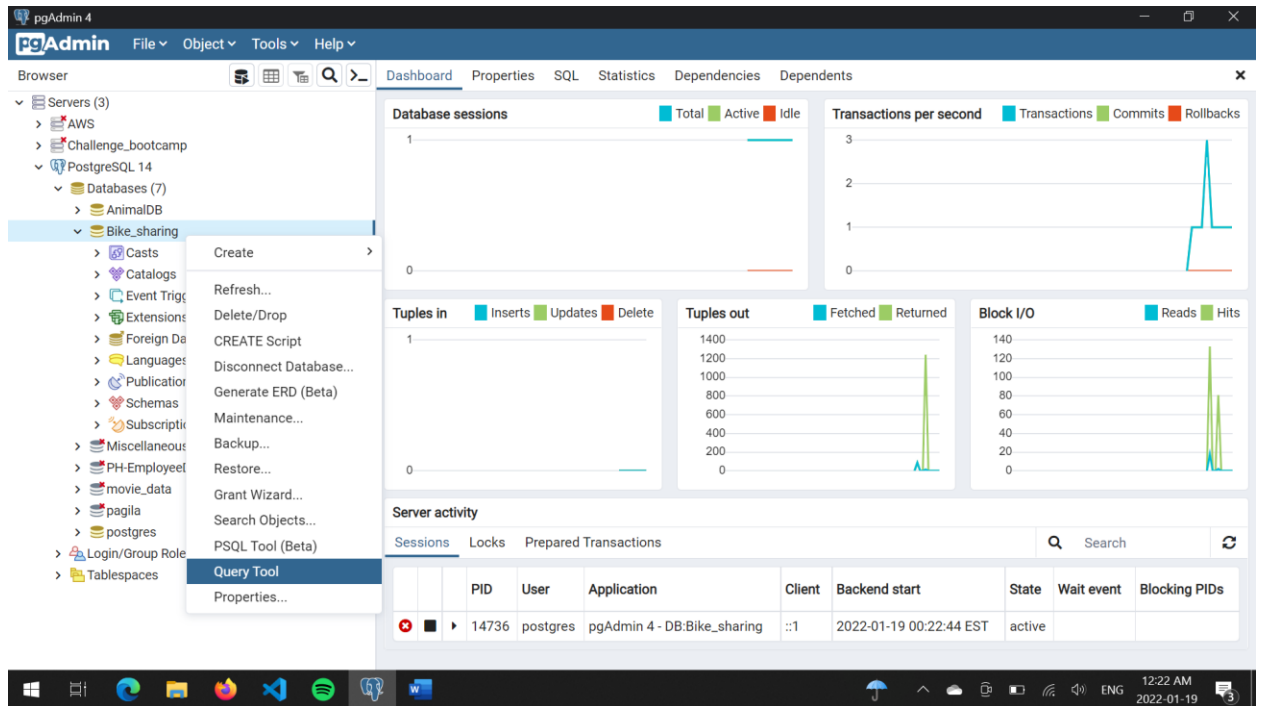
**pgAdmin 4 Dashboard (Top Screenshot):**

- Browser:** Servers (3) > PostgreSQL 14 > Databases (6) > Create > Database...
- Server sessions:** Line chart showing Total, Active, and Idle sessions.
- Transactions per second:** Line chart showing Transactions, Commits, and Rollbacks.
- Tuples in:** Line chart showing Inserts, Updates, and Deletes.
- Tuples out:** Line chart showing Fetched and Returned tuples.
- Block I/O:** Line chart showing Reads and Hits.
- Server activity:** Table with columns: PID, Database, User, Application, Client, Backend start, State, Wait event.

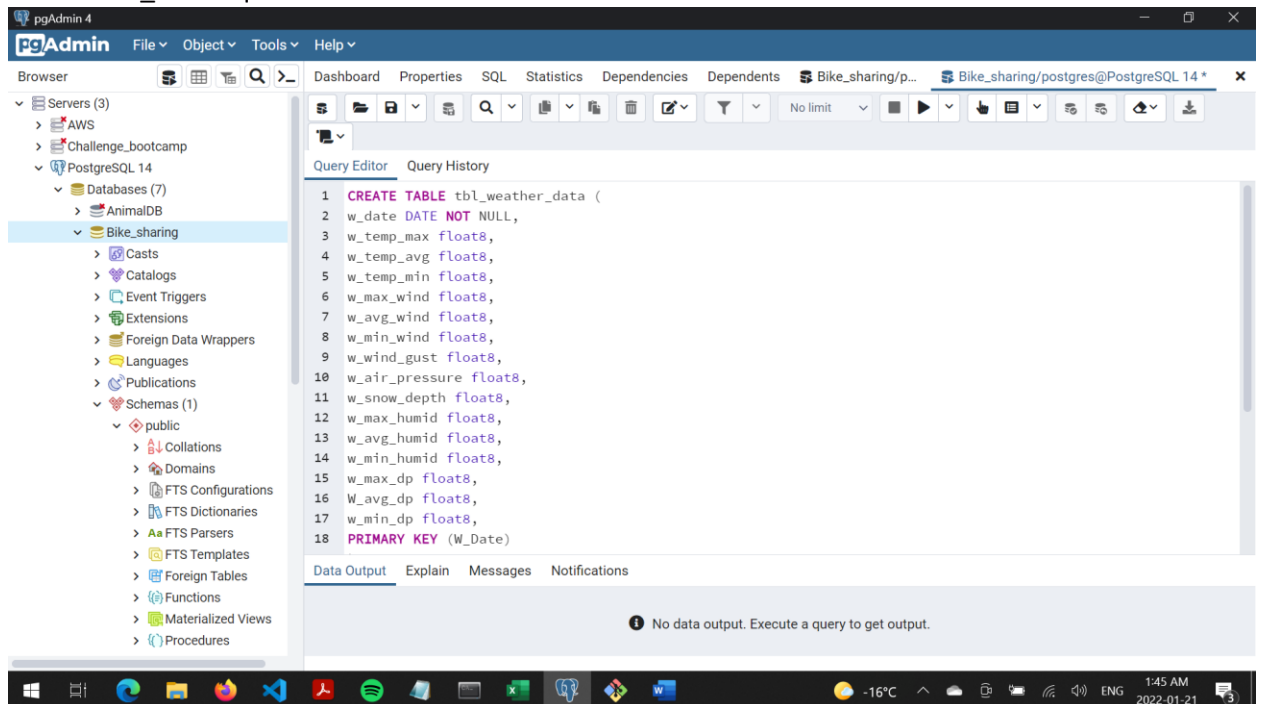
**Create - Database Dialog (Bottom Screenshot):**

- General tab:** Database: Bike\_sharing, Owner: postgres, Comment: (empty).
- Buttons:** Cancel, Reset, Save.

4. Click Database Bike\_sharing , Choose Query Tool



5. Run Create\_table.sql files



6. Open Pandas\_to\_SQL\_connection.ipynb, Run all the cell

**DON'T FORGET TO CHANGE :**

- PATH to the CSV FILE (weather data and bike data)
- Add file config.py on the same folder on your Jupyter Notebook:
- Fill the password between “ ” in config.py using password in your postgres database for username postgres
  - db\_password=""

The screenshot shows a Jupyter Notebook titled 'Pandas\_to\_SQL\_connection'. The code in the cells is as follows:

```
In [1]: import pandas as pd

In [2]: #import the csv files
Weather_df = pd.read_csv('Weather/weather_data_clean.csv')
Bike_data_df = pd.read_csv('Bike_data/Bike_data.csv')

In [3]: #check dataframe
Weather_df
```

The output of the third cell is a DataFrame with the following structure:

	W_date	W_Temp_Max	W_Temp_Avg	W_Temp_Min	W_Max_wind	W_Avg_wind	W_Min_wind	W_Wind_Gust	W_Air_Pressure	W_Snow_Depth	W_M
0	2019-01-01	5.2	-1.4	-8.0	37.0	21.4	3.2	58.0	1015.1	NaN	
1	2019-01-02	-0.5	-4.9	-9.3	20.9	11.9	8.0	NaN	1023.0	0.0	
2	2019-01-03	0.8	-1.0	-2.8	37.0	18.2	0.0	46.0	1013.3	30.0	
3	2019-01-04	8.0	3.6	-0.8	29.0	18.8	8.0	54.0	1007.6	30.0	
4	2019-01-05	4.0	1.2	-1.7	32.2	16.3	3.2	33.0	1006.1	0.0	
...	...	...	...	...	...	...	...	...	...	...	...
1091	2021-12-27	0.1	-3.1	-6.2	59.5	38.9	9.7	48.0	1014.1	40.0	
1092	2021-12-28	2.3	0.9	-0.6	40.2	17.2	3.2	57.0	1009.8	20.0	

## 7. Run pip install psycopg2-binary in your anaconda prompt ( if there is error psycopg2)

The screenshot shows an Anaconda Prompt terminal window with the following commands and output:

```
(mlenv) C:\Users\Inez Suyono>sudo apt-get build-dep python-psycopg2
'sudo' is not recognized as an internal or external command,
operable program or batch file.

(mlenv) C:\Users\Inez Suyono>sudo apt install python3-psycopg2
'sudo' is not recognized as an internal or external command,
operable program or batch file.

(mlenv) C:\Users\Inez Suyono>pip install psycopg2-binary
Collecting psycopg2-binary
  Downloading psycopg2_binary-2.9.3-cp37-cp37m-win_amd64.whl (1.1 MB)
    |#####| 1.1 MB 1.7 MB/s
Installing collected packages: psycopg2-binary
Successfully installed psycopg2-binary-2.9.3

(mlenv) C:\Users\Inez Suyono>
```

8. Use Header\_machine\_learning.ipynb whenever you want to make new jupyter file for machine learning to connect to the database/ Copy the cell for the existing file and put it in the header of the file.