

CO2 EMISSION PREDICTOR

Technology Stack

FastAPI

SkLearn

Streamlit

Airflow

Pgsql

Local Installation

Clone the Repo by going to your local Git Client and pushing in the command:

<https://github.com/Kogulan1/dsp-Kogulan-Natarajan.git>

Install the Packages:

```
pip install -r requirements.txt
```

You need to install airflow and Pgsql separately.

Airflow Installation:

Follow the instructions in the below link:

<https://airflow.apache.org/docs/apache-airflow/stable/start/local.html>

Pgsql Installation:

<https://www.postgresqltutorial.com/install-postgresql-macos/>

Our database Struture:

```
user="postgres",  
password="1234",  
host="127.0.0.1",  
port="5432",  
database="postgres"
```

Table name: predictions

Column_names: engine_size, cylinders, fuel_consumption_city,
fuel_consumption_hwy, fuel_consumption_comb, co2_emissions

SQL comment:

```
CREATE TABLE predictions (  
    engine_size numeric NOT NULL,  
    Cylinders numeric NOT NULL,  
    fuel_consumption_city numeric NOT NULL,  
    fuel_consumption_hwy numeric NOT NULL,  
    fuel_consumption_comb numeric NOT NULL,  
    co2_emissions numeric NOT NULL  
);
```

Step 1:

Start the pgsql server

Step 2:

Run app.py

Command:

Uvicorn app:app --reload

In a new terminal launch Streamlit:

then streamlit.py for front end

Command:

Streamlit run streamlit.py

Now in a new terminal launch airflow:

Instruction to run airflow is in the below link.

<https://airflow.apache.org/docs/apache-airflow/stable/start/local.html>