**Problem Statement: Fuel Efficiency Prediction**

The goal of this project is to develop a machine learning model that predicts the fuel consumption of a vehicle based on various features such as the vehicle's mass, engine capacity, fuel type, emissions, energy consumption, and other relevant characteristics. This model will help manufacturers and researchers understand the factors affecting fuel efficiency and optimize vehicle designs for better performance.

There are 1 million records in this dataset.

You can use the first 700k records for building the model, 200k records for evaluating the model, and the rest of the records as live records on which the model would be evaluated in production.

Please create separate .py files for model training and prediction. Make sure that your dataset during the model building and prediction phases goes through the same data processing and feature creation steps.

Your final deliverable can either be a Python script, which can be scheduled as a batch script to classify vehicles based on their attributes in batch, or a Flask API endpoint, which can be used to predict the fuel efficiency in real time.

Please submit the final report, which should give a clear idea on the following points:

* ML model selected.
* Features selected.
* Feature importance.
* Evaluation of the model.
* Original code.

Use the " Automobile\_data" table from the Database.db file for the project on predicting fuel efficiency.

Please feel free to reach out to your mentor in case of any doubts.