In this work, you will use Machine Learning Linear regression model for prediction depending on the question. You are required to document every step of your process from data cleaning up to prediction and explain your predictions- A report including step by step python code.

Using relevant performance metric, you are required to discuss the 'accuracy' of your prediction.

You are required to submit your report nkimbugwe@cit.ac.ug and prepare a presentation which you will present .

**Question** 1: **Car Price Prediction:**

Can we predict the price of a used car based on features like mileage, make, model, and year?

Dataset: https://www.kaggle.com/datasets/austinreese/craigslist-carstrucks-data

**Question Two: Fuel Consumption Prediction:**

Can we predict a vehicle's fuel consumption based on engine size, weight, and other specifications?

Dataset: https://www.fueleconomy.gov/feg/download.shtml

Question 3: **Temperature Forecasting:**

Can we predict daily temperatures based on historical weather data, such as temperature, humidity, and wind speed?

https://www.kaggle.com/datasets/budincsevity/szeged-weather

**Question 4: Household Energy Consumption Prediction:**

Can we predict household energy consumption based on factors like temperature, time of day, and appliance usage?

https://archive.ics.uci.edu/dataset/235/individual+household+electric+power+consumption