Interim Proposal

Group (C2) Members:

Loay Al-Abri **#84813229**,   Sabrina Lou **#17539495**,

Shaleen Gorakatar **#99726309**,   Jorge Punter Piquer **#14943476**.

Data:

This project will use a Car Prices dataset from Kaggle. It can be accessed through the following link: https://www.kaggle.com/datasets/zafarali27/car-price-prediction.

The dataset includes car prices of 2500 cars with the following columns (we omitted the Car.ID column because it is not useful for our analysis):

- **Price:** a continuous variable of the selling price of the car.
- **Brand:** a categorical variable of the car brand with 7 unique brands.
- **Year:** the car's year of manufacture.
- **Engine.Size:** a continuous variable of the engine size in litres.
- **Fuel.Type:** a categorical variable of the fuel type (Petrol, Diesel, Hybrid, or Electrics).
- **Transmission:** a categorical variable of transmission type (Manual or Automatic).
- **Mileage:** a continuous variable of the kilometres driven.
- **Condition:** a categorical variable of the condition of the car (New, Used, or Like New).
- **Model:** a categorical variable of the car model with 28 unique models. Example: Prius.

Research Questions:

With the current shift towards electric and hybrid cars because of their groundbreaking technologies and innovations, are modern electric and hybrid cars more expensive than traditional petrol and diesel cars in general?

Group Members Roles:

Loay Al-Abri: Oversee the project timeline and ensure alignment with project details. Also, coordinate between team members, and the professor and TAs, assist other team members in their roles, and prepare the final report.

Sabrina Lou: Evaluate the developed models and assist in model developments and reports. Also, assist team members with any technical difficulties.

Jorge Punter Piquer: Develop models with different predictors, uncover patterns, and build models that address the research questions.

Shaleen Gorakatar: Perform exploratory data analysis and pre-processing, create visualizations and prepare reports to communicate findings.