Interim Proposal

**Group (C2) Members:**

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#### **Data:**

### This project will use a Car Prices dataset from Kaggle. It can be accessed [here](https://www.kaggle.com/datasets/zafarali27/car-price-prediction). The dataset includes car prices of 2500 cars with the following columns:

* Price: a continuous variable of the selling price of the car.
* Car.ID: an ID starting from 1 to 2500.
* 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:**

#### In this research, we would like to investigate the essential factors that affect a car's price and the significance of each factor. Moreover, with the current shift towards electric and hybrid cars because of their groundbreaking technologies, are electric and hybrid cars more expensive than petrol and diesel cars in general?

Also, from a consumer’s perspective, how can we leverage this dataset to make informed decisions when buying a car?

#### **Group Members Roles:**

Roles:

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

2. Develop models with different predictors, uncover patterns, and build models that address the research questions.

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

4. Oversee the project timeline and ensure alignment with project details. Also, coordinate between team members, and the professor and TAs.

Loay Al-Abri: 4

Sabrina Lou:

Shaleen Gorakatar:

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