T5 Project proposal

Exploratory Data Analysis (EDA)

Introduction:

The history of transportation starts from the age of humans and has continued to change over some time. The first means of transportation was the human foot.

The history of transport has undergone a radical change with the introduction of wheels. Existing means of transportation were continuously improved after that, for example, horse-drawn vehicles (carts or karts).

Until the gas and fuel cars were invented

Cars are one of the most important necessities for every family, as they are the most popular means of transportation these days.

This project aims to analyze the used car market in the UK, compare car prices by type, engine, and car model, for example, which cars are most in demand. With the presence of more than one car company.

We will do a comprehensive analysis to find the best used cars to attract customers so that our showrooms are among the best and we can achieve the company's goal and vision for development in the used car sectors

Algorithms:

After we explore data, we will do data cleaning, pre-processing and delete the duplicate records and check if there are any null values then drop them. After that we will try to answer the questions we are looking for.

Questions:

1. What are the most popular used cars ?

2.What is the most reliable feature that customers rely on when buying a used car ?

3.What is the average customer budget when buying a used car ?

4.Can we add a powerful feature after or during the purchase of the used car that will enable us to gain more customers ?

# Data Description:

The data set is provided in .csv format, contains information of price, transmission, model, mileage, fuel type, road tax, miles per gallon (mpg), and engine size.

The data set was extracted from Kaggle <https://www.kaggle.com/adityadesai13/used-car-dataset-ford-and-mercedes>

| Field Name | Description |
| --- | --- |
| Model | In this column, the model of the car shows us the name of the car for example ford Kuga. |
| Year | In this column, shows the year of manufacture of the car |
| Price | This column shows the cost of car |
| Transmission | It shows us the type of car transmission, whether it is manual or automatic |
| Mileage | In this column, It shows us the distance the car has traveled in miles |
| Fuel type | In this column, it shows us the type of fuel, whether it is petrol or diesel |
| Tax |  |
| Mpg | In this column, it shows us the distance covered by the car per gallon |
| Engine Size | In this column, it shows us the engine capacity of the car |

Tools:

1. Python.

2. Jupyter Notebook.

3. PowerPoint.

4. Excel

Libraries:

1. NumPy.

2. Pandas.

3. Matplotlib.

MVP Goal:

The MVP goal is to answer at least four of the questions we mentioned