**"** **USED CARS: Unveiling Pricing, Performance, and Trends"**

**Project Manager:** MARKET MAVERICKS

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**Estimated Completion Date:** 10-04-2024

**Details of the dataset:**

We have been given a zip record of used cars containing 13 csv records, each of distinctive companies of car.

**Breakdown of the common columns:**

* "Model": The car's exact model or make is indicated in this column.
* "Year": Denotes the year that the vehicle was produced.
* "Price": Indicates the car's cost.
* "Transmission": Indicates the kind of transmission system that is fitted in the vehicle (manual, automatic, etc.).
* "Mileage": Indicates the total miles driven by the vehicle.
* "FuelType": Indicates the kind of fuel the vehicle runs on, such as gasoline, diesel, or electric.
* "Tax": Indicates the amount of taxes pertaining to the vehicle.
* "MPG": An acronym for miles per gallon that represents how fuel-efficient a car is.
* "EngineSize": Usually expressed in liters (L) or cubic centimeters (cc), this parameter describes the engine's displacement or size of the vehicle.

**Overall Objective:**

* **Price analysis:** Examining the relationship between various attributes (e.g., model, year, mileage, type of transmission, fuel type, and engine size) and the cost of automobiles.
* **Performance evaluation:** examining the connections between various characteristics and vehicle performance indicators (such as mileage, MPG, and engine size) to ascertain which elements have the most influence on total performance.
* **Trend Identification:** Determine whether there are any noteworthy patterns in the dataset, such as variations in tax rates, mileage, or price over several years or automobile models.
* **Suggestions:** delivering information and suggestions on the best pricing tactics, feature combinations, and market positioning to stakeholders, including automakers, dealers, and customers, based on the analysis's results.

**Ownership of each deliverable:**

We've divided the work collaboratively. Each team member will analyse a specific aspect of the data, drawing their own conclusions and providing valuable insights.

**Krish:**

* What is the correlation between different features such as model, year, mileage, transmission type, fuel type, and engine size with the price of cars?
* How do various features individually and collectively influence the pricing of cars within the dataset?
* Can statistical analysis and regression modelling help quantify the impact of each feature on car prices?

**Alok:**

* What is the relationship between car performance metrics (mileage, MPG, engine size) and other attributes in the dataset?
* Which factors, such as engine size, transmission type, and fuel type, contribute most to overall car performance based on the dataset?
* How can statistical techniques and data visualization aid in understanding performance trends and correlations?

**Abhinandan:**

* What significant patterns appear from the statistics, such as variations in cost, mileage, or tax rates between various automobile models or years?
* How are pricing, mileage, and tax rates within the dataset affected by seasonal changes, long-term patterns, and anomalies?
* How may the observed patterns and trends be successfully communicated to stakeholders, and what possible consequences do they have?