Car Features and MSRP project

1. Business Problem

Many people seek to buy cars with certain characteristics, but they do not know what prices they will face, so we will create a model to help them predict the price of their dream car.

2. Data Description

Cars dataset with features including make, model, year, engine, and other properties of the car used to predict its price.
in the follow we show some information of dataset:

1. website
   this dataset found in kaggle in this link
   https://www.kaggle.com/datasets/CooperUnion/cardataset

2. row and column count
   number of row ⇒ 11.9k
   number of column⇒16

3. column description

   1. Make ⇒the manufacture company
   2. Model⇒car model
   3. Year⇒car Year
   4. Engine Fuel Type⇒source of power such as regular unleaded
   5. Engine HP⇒Engine HorsePower(HP)
   6. Engine Cylinders⇒It's a chamber where fuel is combusted and power is generated.
   7. Transmission Type⇒(AUTOMATIC,MANUAL)
   8. Driven_Wheels⇒Driven Wheels
   9. Number of Doors
   10. Market Category

11. Vehicle Size⇒size of Vehicle
12. Vehicle Style⇒type of Vehicle
13. highway MPG⇒the average a car will get while driving on an open stretch of road without stopping or starting, typically at a higher speed(miles per gallon)
14. city mpg⇒the score a car will get on average in city conditions, with stopping and starting at lower speeds.
15. Popularity
16. MSRP⇒Manufacturer's suggested retail price

3. Analysis question

1. What are the characteristics of the ten most expensive cars?
2. What are the characteristics of the cheapest ten cars?
3. What are the most popular companies in the market?
4. How does the brand affect the price?
5. What cars can be considered overpriced?
6. Price VS. popularity

4. select modeling

The model learning⇒regression
Target column⇒MSRP