# Car Price Prediction

Car Price Prediction is a machine learning project that aims to predict the selling price of used cars based on various features such as the car's brand, model, mileage, engine size, fuel type, number of doors, etc. The project involves using a dataset of car listings with these features and their corresponding selling prices to train a machine learning model to predict the price of a car given its features.

The project typically involves data preprocessing, including cleaning, feature engineering, and feature scaling. After preprocessing, the dataset is split into training and testing sets, and a machine learning algorithm such as linear regression or random forest is trained on the training set. The performance of the model is evaluated on the testing set using metrics such as mean squared error or R-squared.

The goal of the Car Price Prediction project is to develop an accurate model that can predict the selling price of used cars with a high degree of accuracy. This can help both buyers and sellers make more informed decisions when buying or selling used cars.

# Some Relevant Ques

Q: What is the purpose of the code?
A: The purpose of this code is to clean and preprocess a dataset of car prices for further analysis and modeling.

Q: What libraries are imported in the code?
A: The code imports several libraries including numpy, pandas, matplotlib, seaborn, statsmodels, and scikit-learn.

Q: What is the significance of setting the maximum number of columns to display to None using 'pd.options.display.max_columns=None'?
A: Setting the maximum number of columns to display to None ensures that all columns of the dataframe will be visible when displayed.

Q: How is the car dataset read into the code?
A: The car dataset is read into the code using the pd.read_csv() function, which reads a csv file and creates a dataframe from it.

Q: What is the purpose of the split() function and the apply() method in the code?
A: The split() function is used to extract the brand name from the 'CarName' column by splitting the string at the space character and returning the first element. The apply() method is used to apply this function to every row of the 'CarName' column and create a new 'Brand' column with the extracted brand names.

Q: What is the purpose of the lambda function used in the code?
A: The lambda function is used to convert all the brand names in the

'Brand' column to lowercase alphabets.

Q: What is the purpose of the loc() method in the code?
A: The loc() method is used to locate and correct wrongly marked brand names in the 'Brand' column.

Q: What is the purpose of the select_dtypes() method in the code?
A: The select_dtypes() method is used to select columns from the dataframe based on their data types, in this case, selecting only the numeric columns.

Q: What is the purpose of the map() method in the code?
A: The map() method is used to convert the 'doornumber' and 'cylindernumber' columns from their original string form to integer form for easier analysis and modeling.

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