Used Car Price Prediction Using ML

Mentor: Prof. Pankaj Tyagi, CIC, Delhi University
Rakesh Meena(rakeshmeena_01@yahoo.com, 11937)

ABSTRACT

Customers who purchase a new car can be sure that their investment will be worthwhile. But because new cars are becoming more expensive and consumers can no longer afford to acquire them, used car sales are rising everywhere. Therefore, a system that accurately assesses the value of the car utilising a range of features is urgently needed for used car price prediction. The current system involves a procedure where a vendor chooses a price arbitrarily and the buyer is unaware of the car and its current market value.

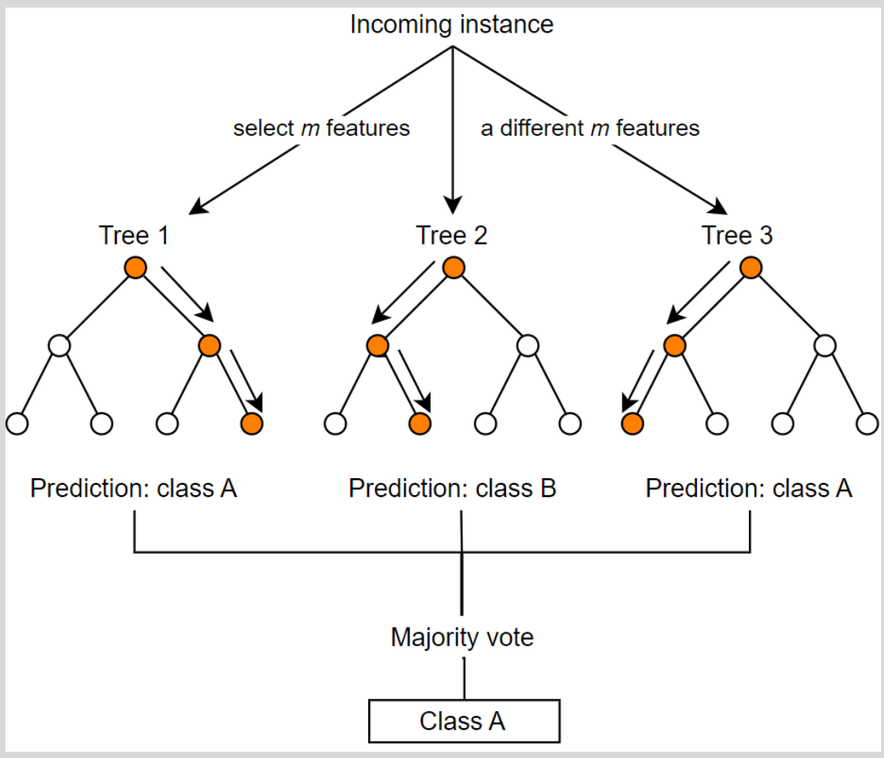
INTRODUCTION

Given the variety of elements that influence a used car's market pricing, determining if the quoted price is accurate is a difficult undertaking. The goal of this project is to create machine learning models that can precisely forecast a used car's price based on its attributes so that buyers can make educated decisions. It is feasible to estimate the real price of a car rather than just the price range of a car since regression algorithms give us a continuous number as an output rather than a segmented value.

METHODOLOGY

- Training phase: Using the data in the data set, the system is taught to fit a model (line or curve) depending on the algorithm selected appropriately.
- Testing phase: the system is given inputs and is evaluated for functionality. The precision is examined. As a result, the data that is utilised to develop or validate the model must be appropriate. The system must apply the proper algorithms to complete the two distinct tasks because it is built to detect and estimate the price of used cars.

A random forest is a meta estimator that employs averaging to increase predicted accuracy and reduce overfitting after fitting numerous classification decision trees to different dataset subsamples.



RESULTS

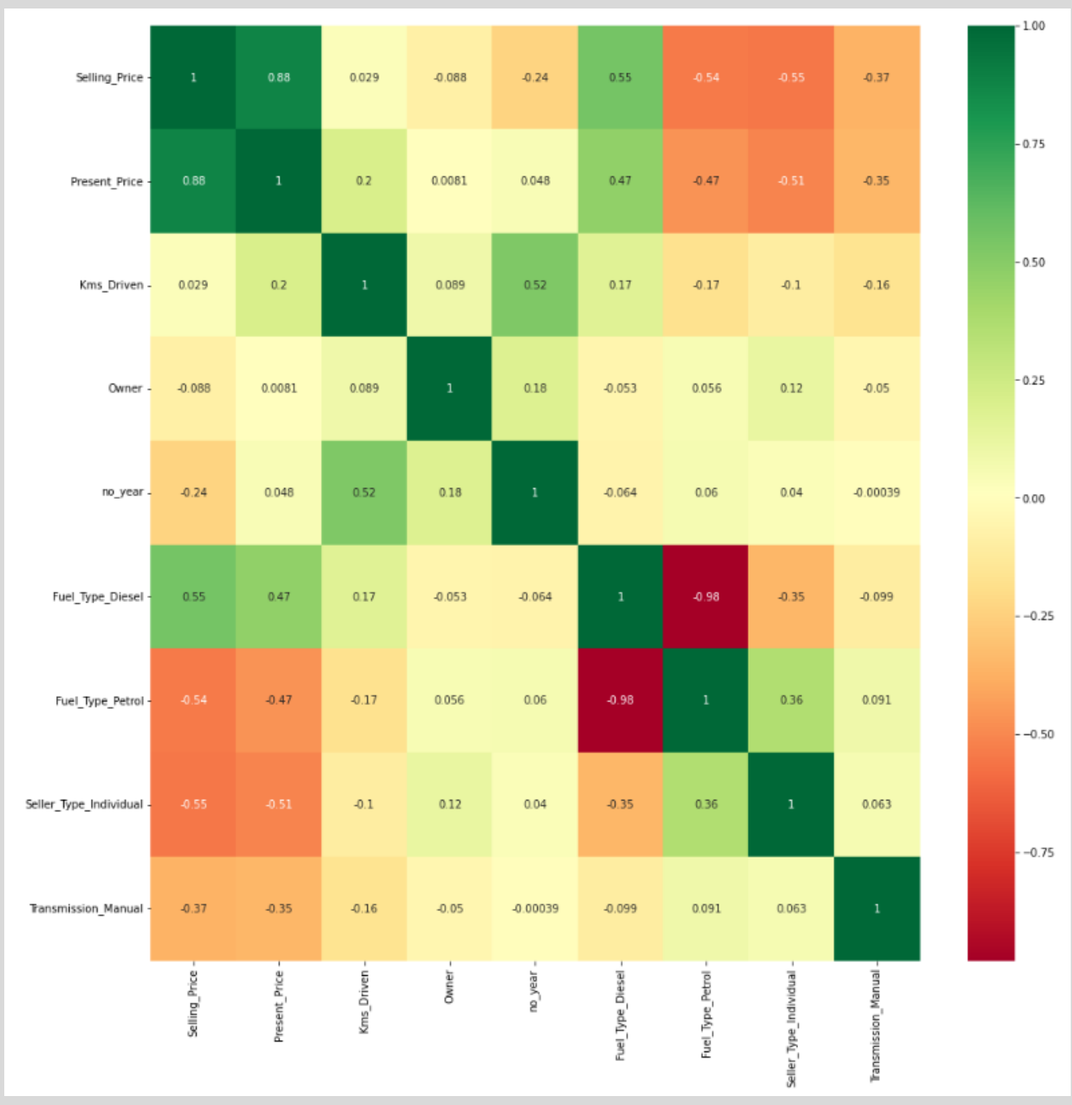


Fig. HEATMAP CORRELATION OF FEATURES

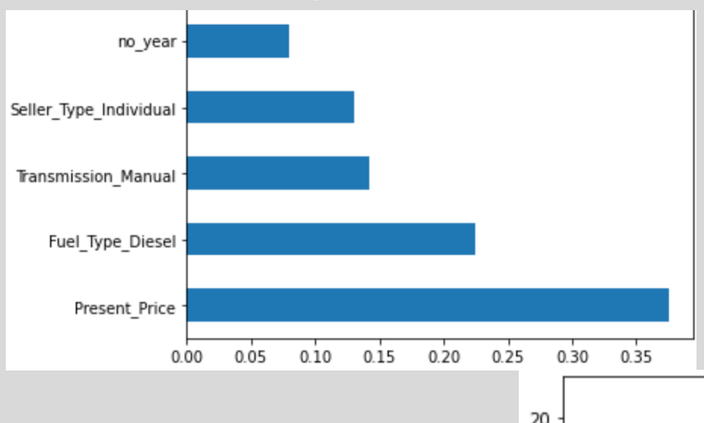
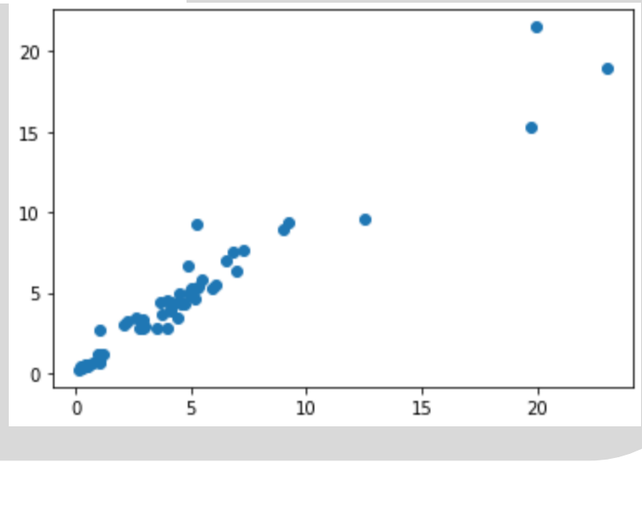


Fig. Important Features

Fig. Graph of Prediction



CONCLUSION

Used car sales are rising globally due to the rising costs of new cars and the customers' inability to afford to buy them. Therefore, a system that accurately assesses the value of the car utilising a range of features is urgently needed for used car price prediction. The suggested system will make it possible to estimate used automobile prices with greater accuracy.