## **Car Price Report**

With the covid 19 impact in the market, we have seen lot of changes in the car market. Now some cars are in demand hence making them costly and some are not in demand hence cheaper. With the change in market due to covid 19 impact, we face problems with the previous car price valuation machine learning models. So, they are looking for new machine learning models from new data.

## Steps taken:

- 1. We check the data inside the dataset to understand the type of data.
- 2. We understand the data to treat it for the null values that are present.
- 3. After the treatment for the null values, we encode the data to produce columns all into numerical type.
- 4. We see few features that are either unique to each column such as 'Index' or features that are same for all the rows of the data that add no value to the learning.
- 5. Such data is removed so as to reduce the features for the dataset.
- 6. Now we do an extensive research using a correlation matrix to grade each column to the weightage to the target column.
- 7. We do feature selection considering the correlation value which in this case is only 1 feature, however we still use it.
- 8. Now we have reduced our dataset to the features that produces a weightage to the target column and hence ready to train the model.
- 9. On the basis, we better understand what value each housing features produces in the price predictions.

## Conclusion:

From the data we can see that various qualities of a car such as the model, transmission and km driven are of the most importance for the people in terms of the price of the car. On the other hand, features such as the brand, ownership produces a correlation of near to 0 correlation and hence, least importance.

This concludes that cars with great model, preferred transmission and less km driven should be given more importance while procuring whereas the other factors that has low importance can be used to reduce the price of the car while buying.