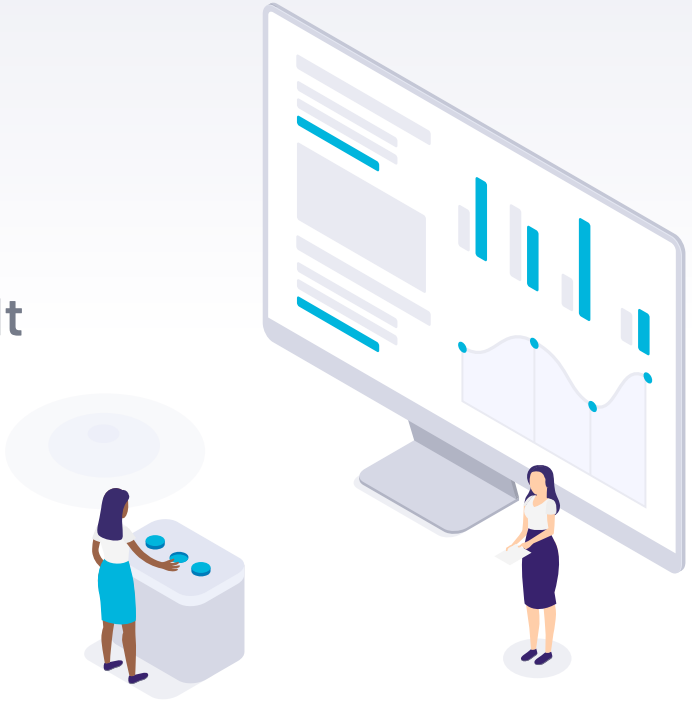
Used Car Price Prediction

Project Goal

- **The Goal of this project is to predict the price of used car based on various features.**

DATA

The dataset is provided in .csv format. It contains over 6000 rows with 13 features that contains information about used cars.



Project Lifecycle

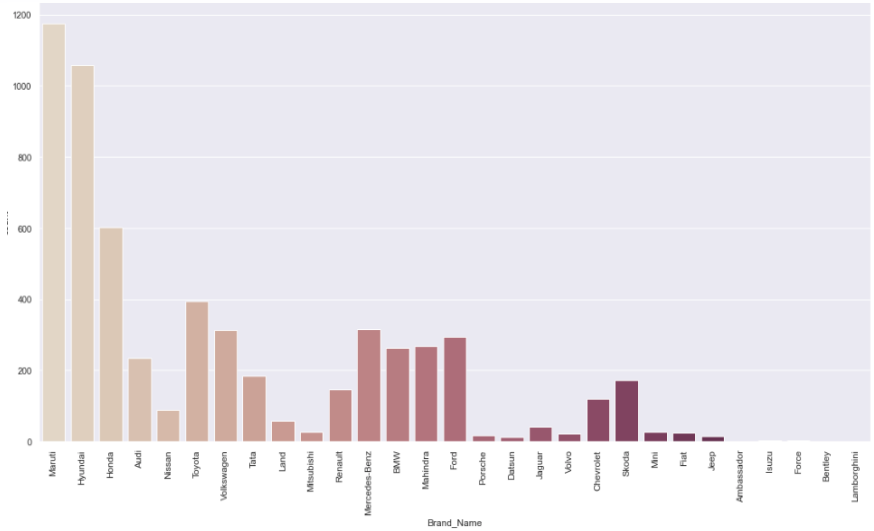
- Exploratory Data Analysis.
- Feature Engineering.
- Feature Selection.
- Modeling.

EDA

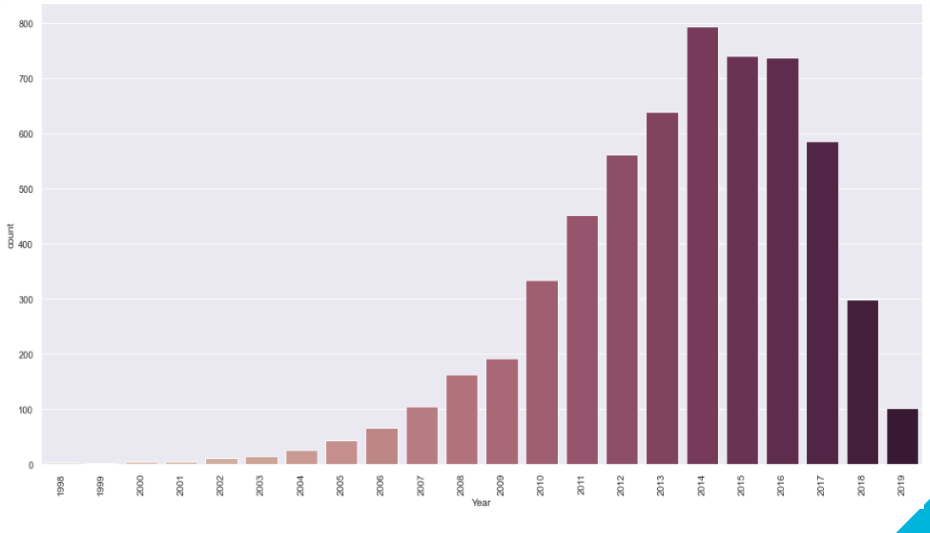
- • Importing libraries.
- • Importing the dataset.
- • Handling of Missing values.
- • Categorical Variables.
- • Handling Outliers

Data Visualization

- • Brand Name VS Car count

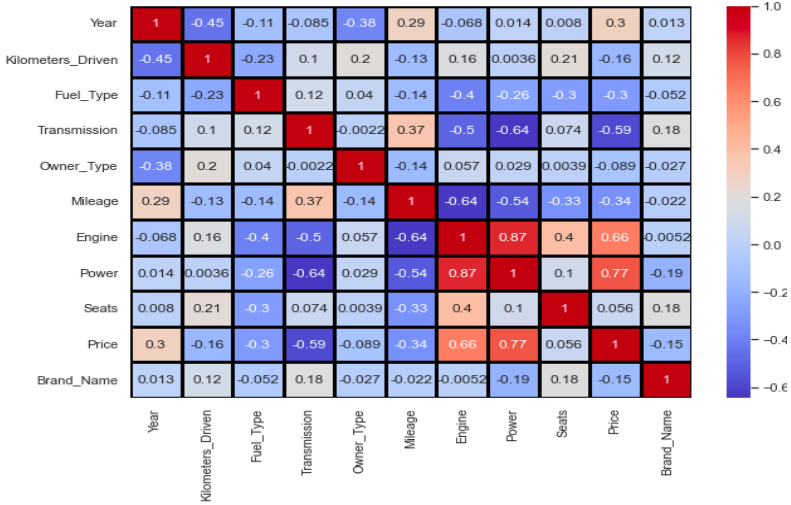


- Years VS Car count

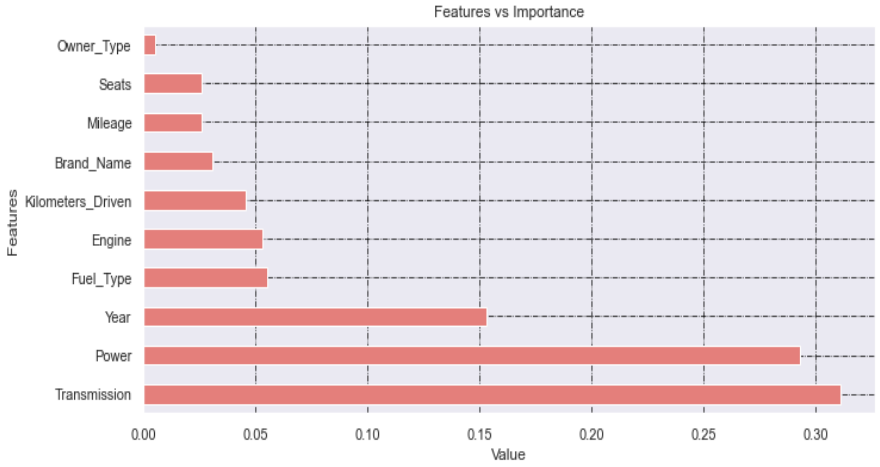


Feature Selection

- **Correlation matrix**



- **Features vs Importance**

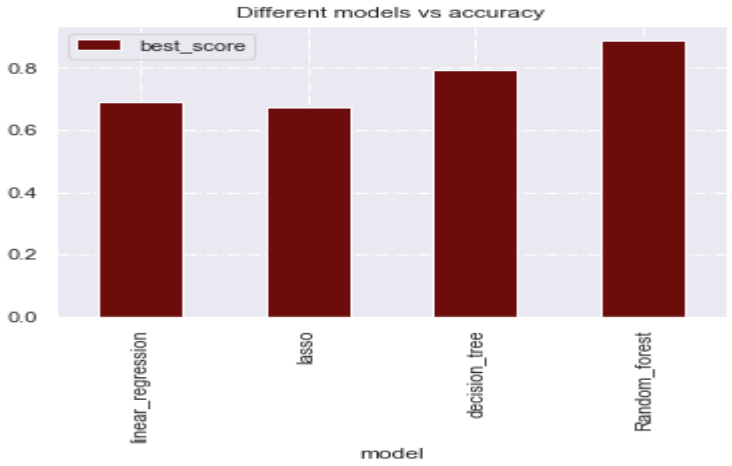


Modeling

- Linear Regression.
- Lasso.
- Decision Tree.
- Random Forest.

Random Forest gives the best score with 88 % accuracy

	model	best_score
0	linear_regression	0.68954
1	lasso	0.67422
2	decision_tree	0.79466
3	Random_forest	0.88982



Random Forest Model

Score

0.8805772079325134

	Actual	Predicted
5500	8.00	6.860
4436	3.50	3.222
205	19.90	24.550
3345	2.40	3.419
3585	5.25	7.939
2621	1.55	1.567
2841	14.50	20.115
5201	7.65	6.488
1244	11.25	11.173
4838	4.29	4.101

```
Mean Absolute Error      :  1.5789586828774065
Mean Squared  Error      :  11.753151613411251
Root Mean Squared  Error :  3.4282869794419564
R Squared Error          :  0.8805772079325134
```

Thanks!