



PREDICTING CAR PRICES USING LINEAR REGRESSION

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INTRODUCTION

PROBLEM STATEMENT

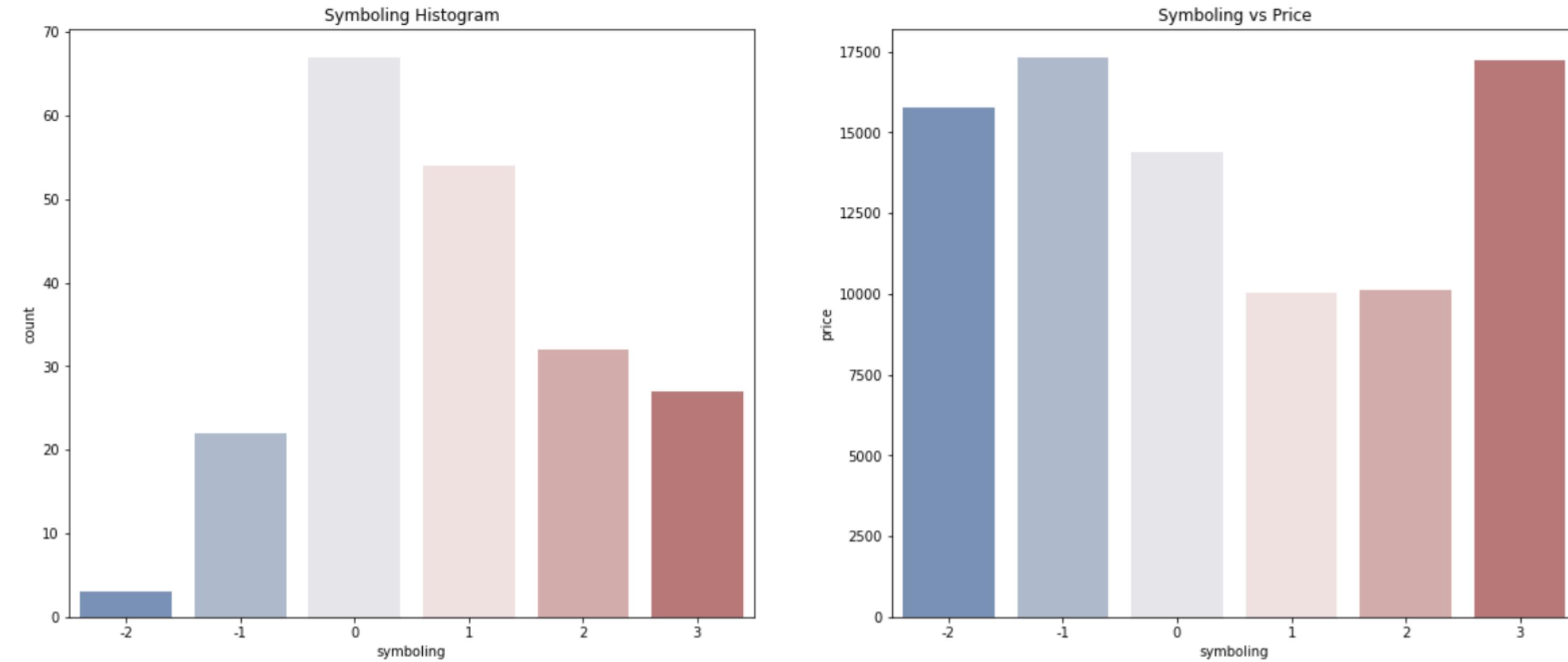
- The purchase of a car can take a considerable amount of time.
- It is possible to determine the actual worth of a car based on many factors.
- The aim is to develop Linear regression model based on our data

DATASET

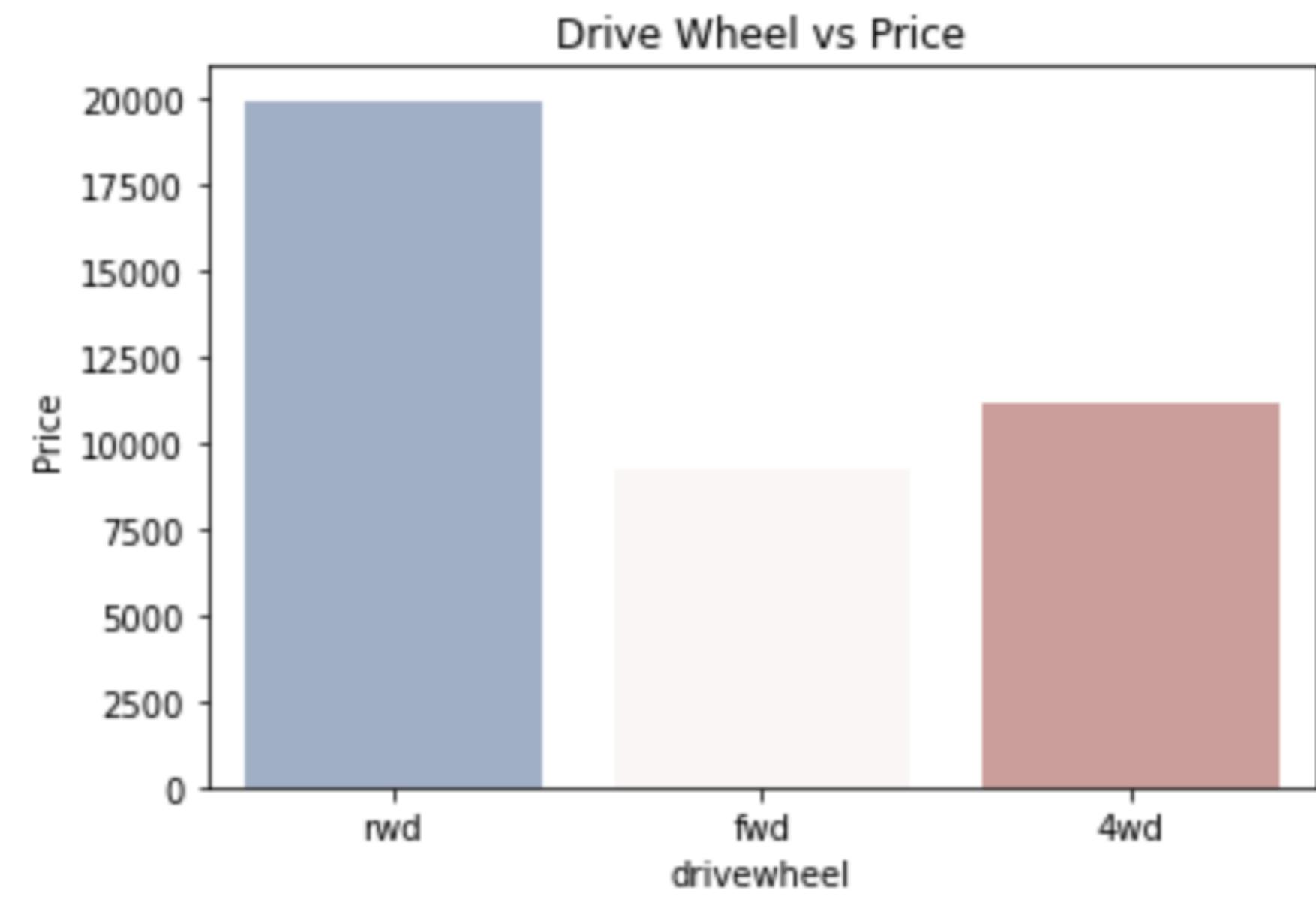
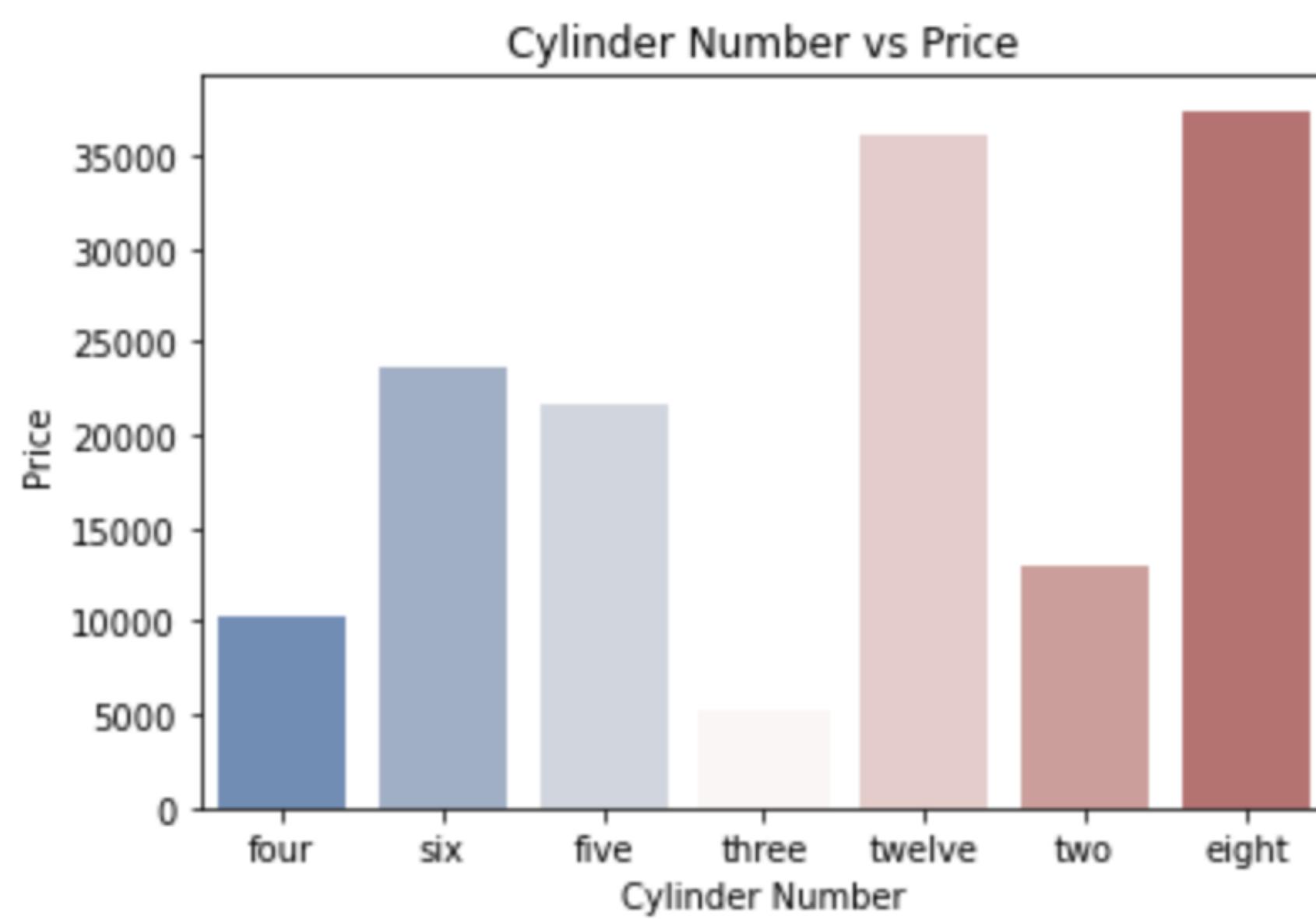
DATA

- Data scraped using Selenium.
- 205 observations, 26 features.
- Price is our target
- The independent variables are divided into Categorical and Numerical variables.

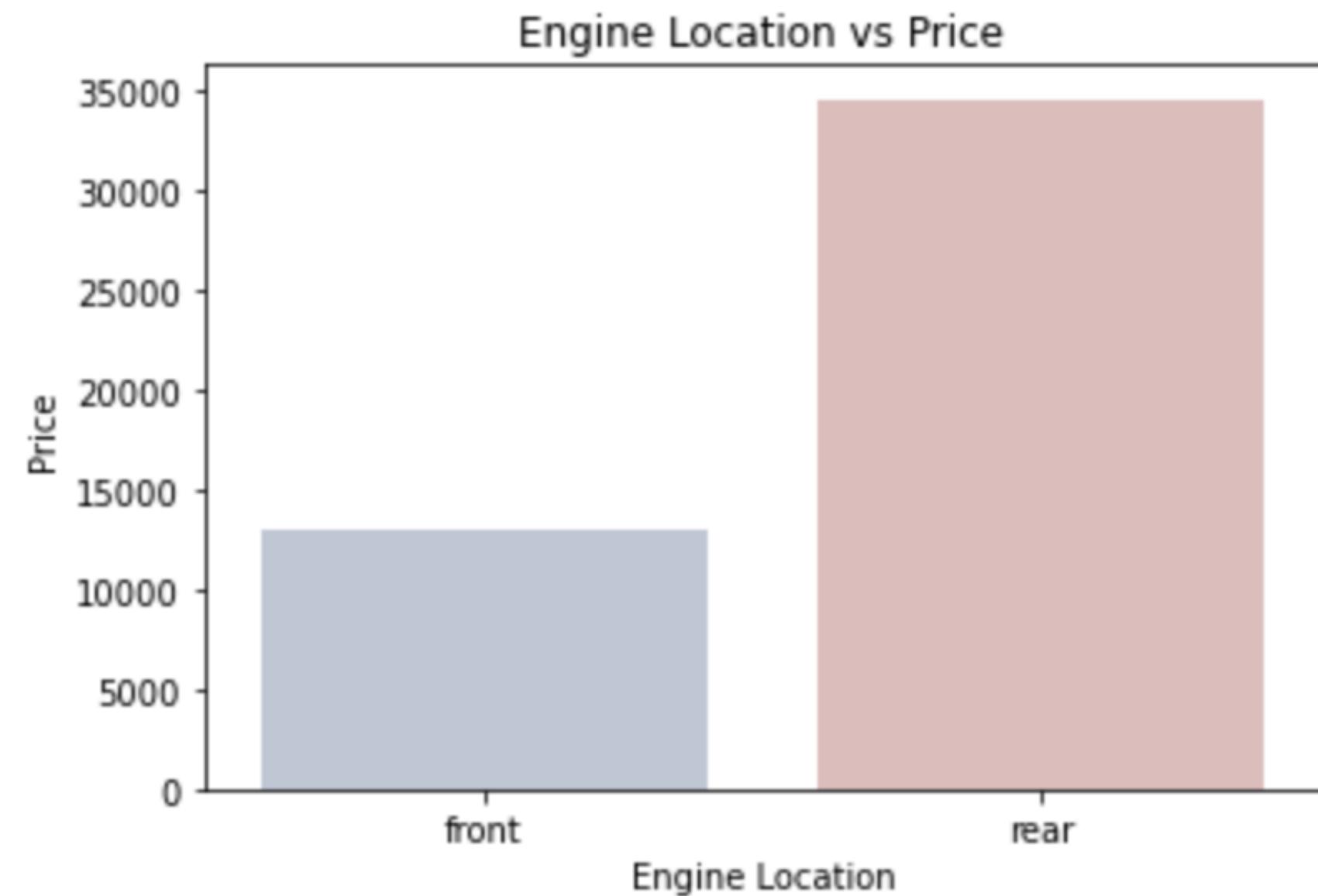
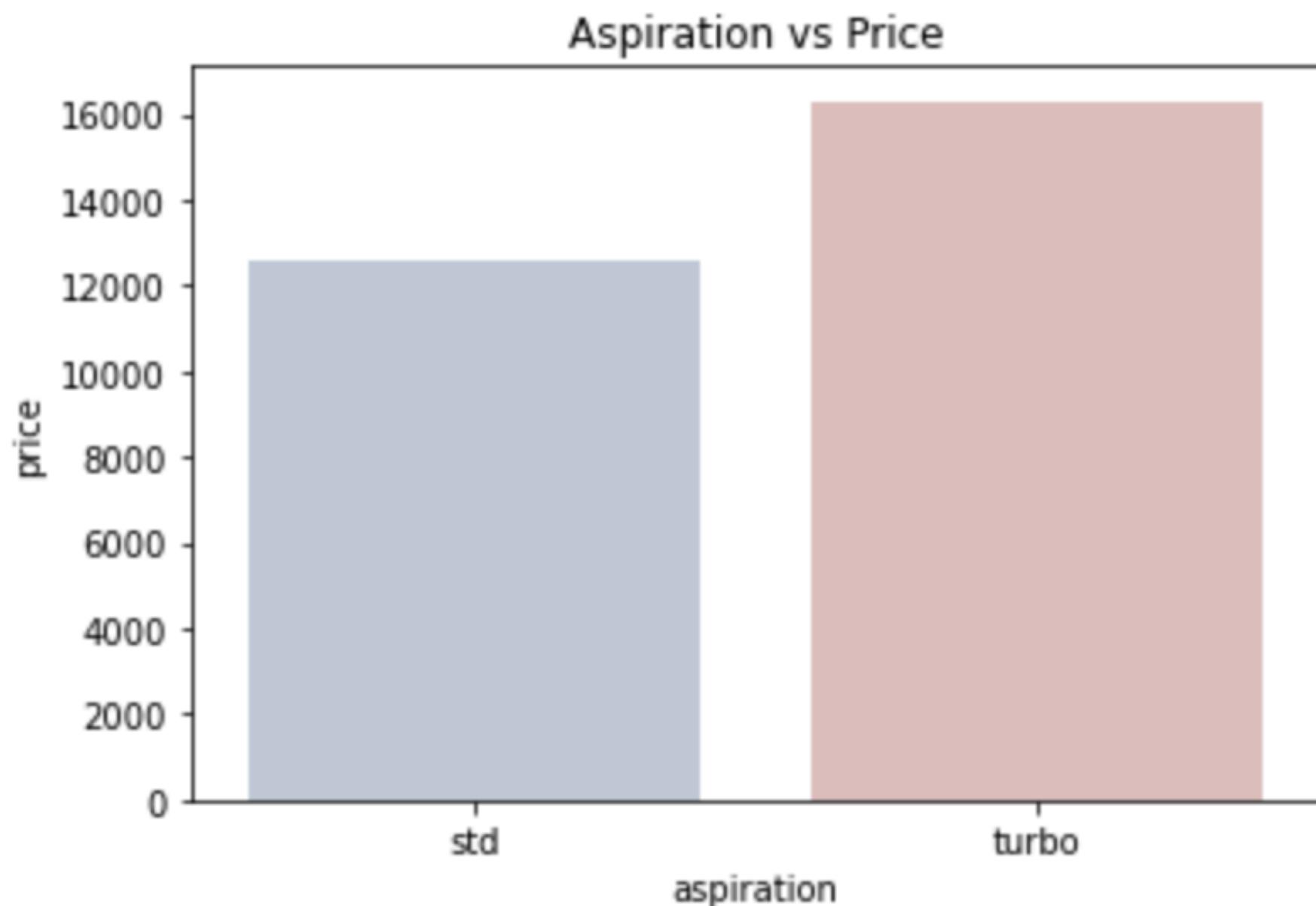
EXPOLARITY DATA ANALYSIS



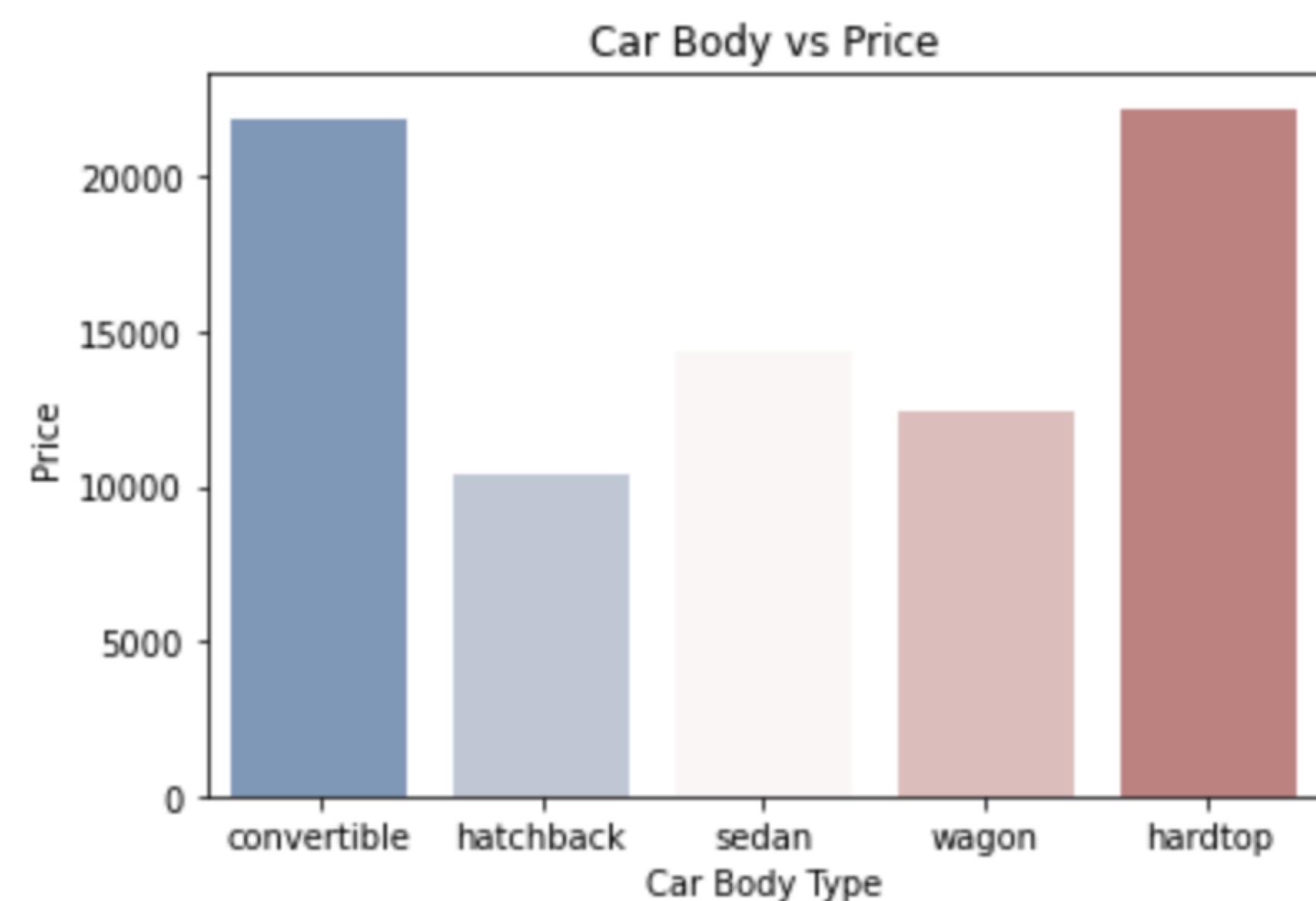
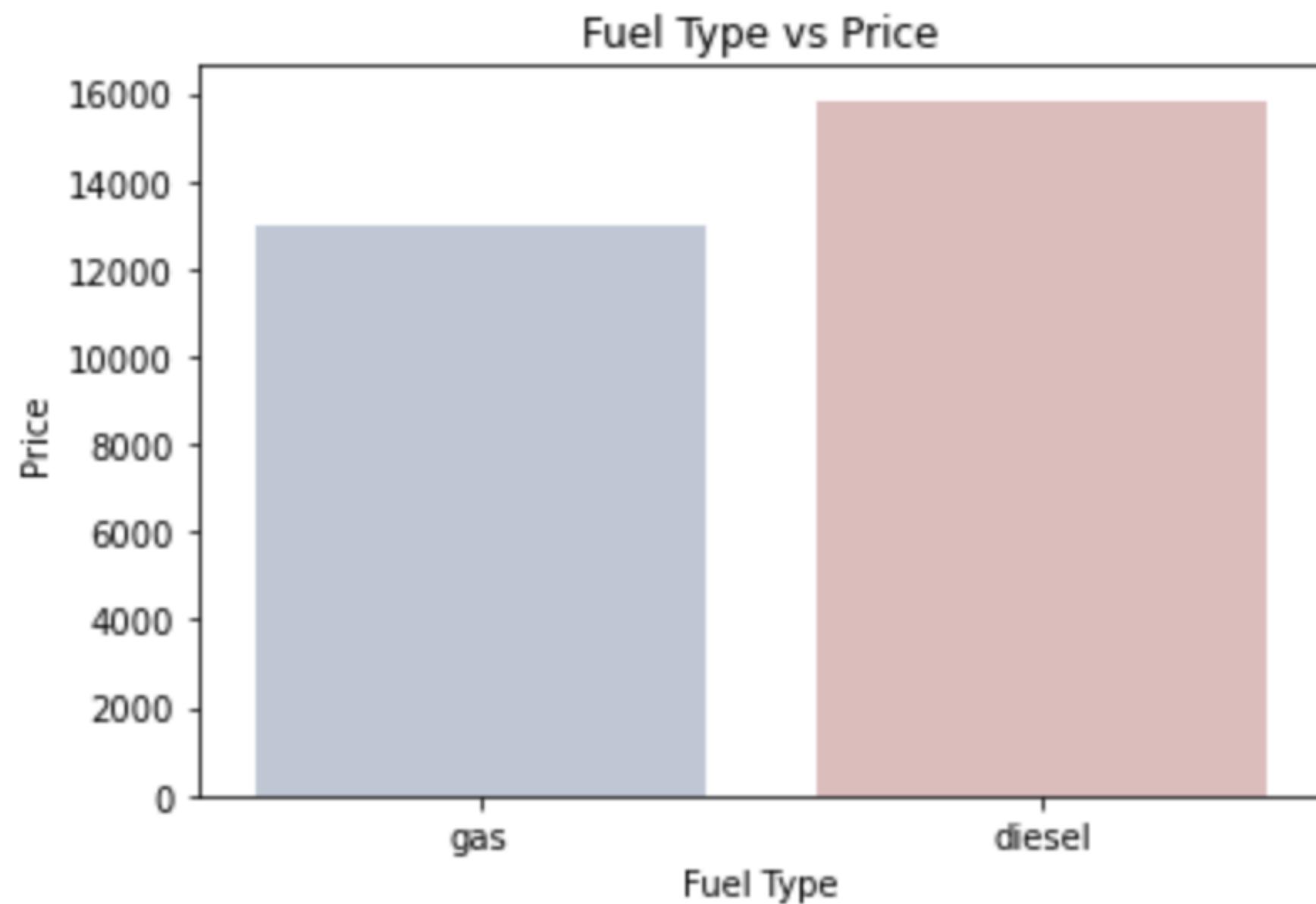
CONT: EXPOLARITY DATA ANALYSIS



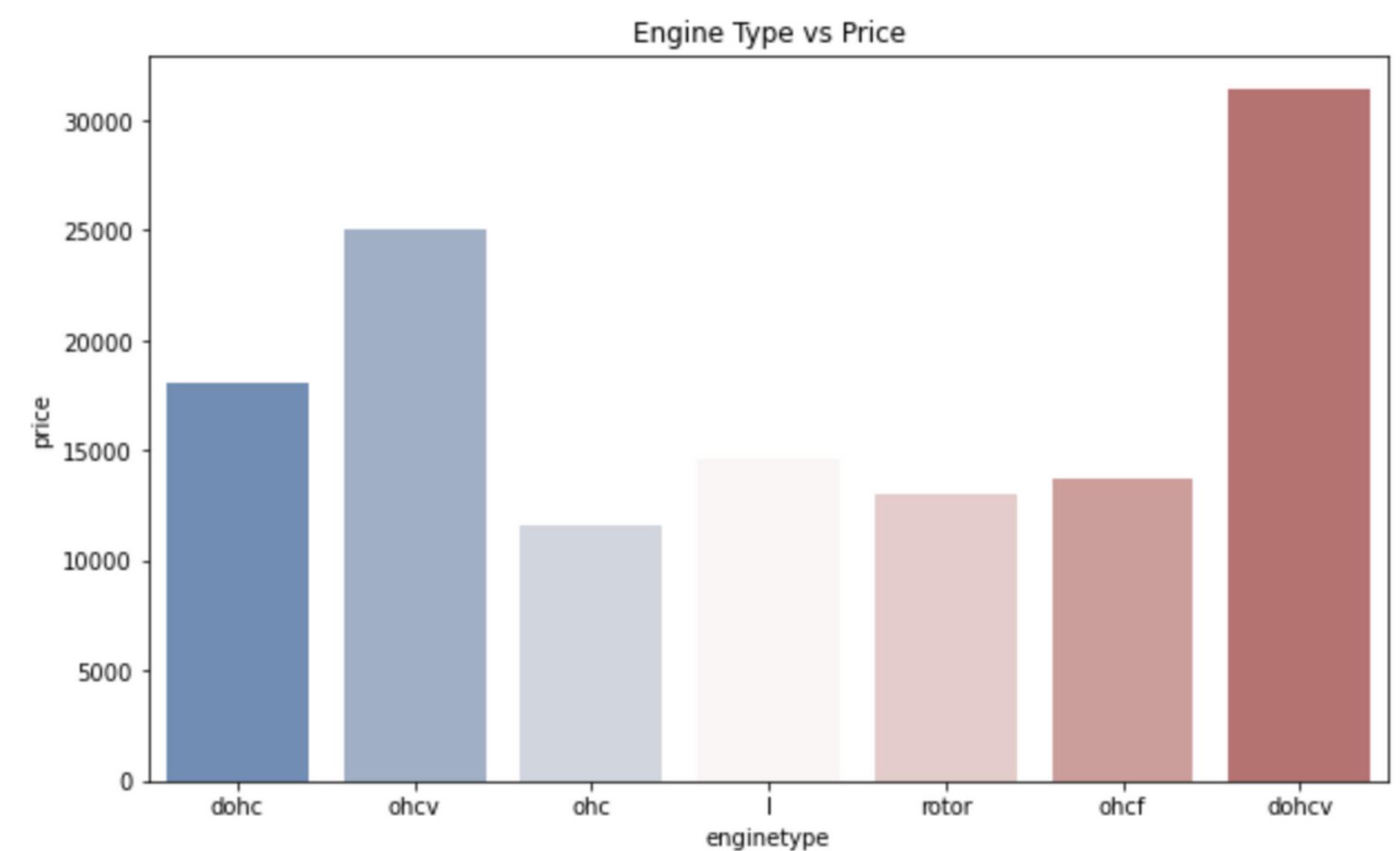
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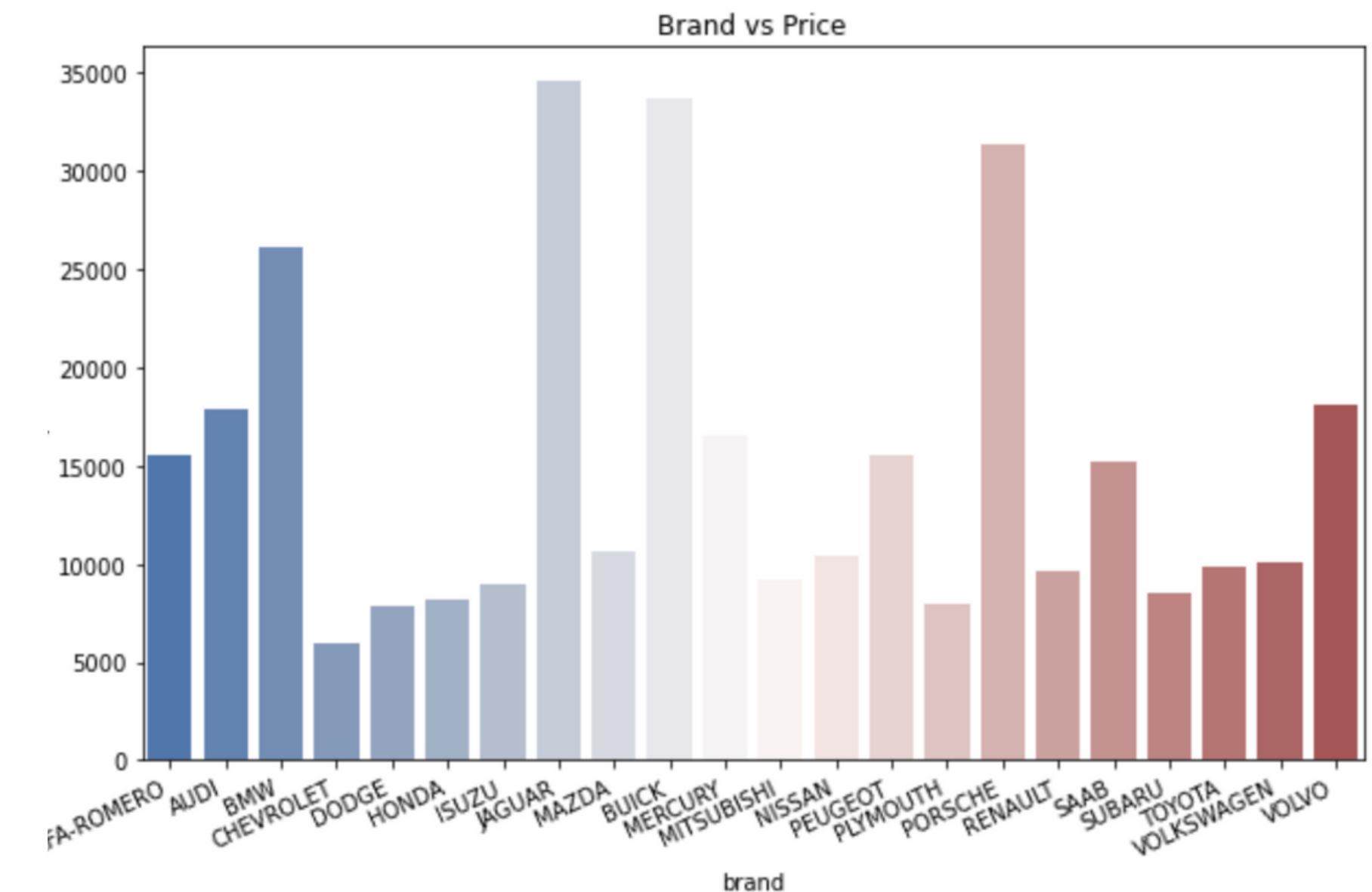
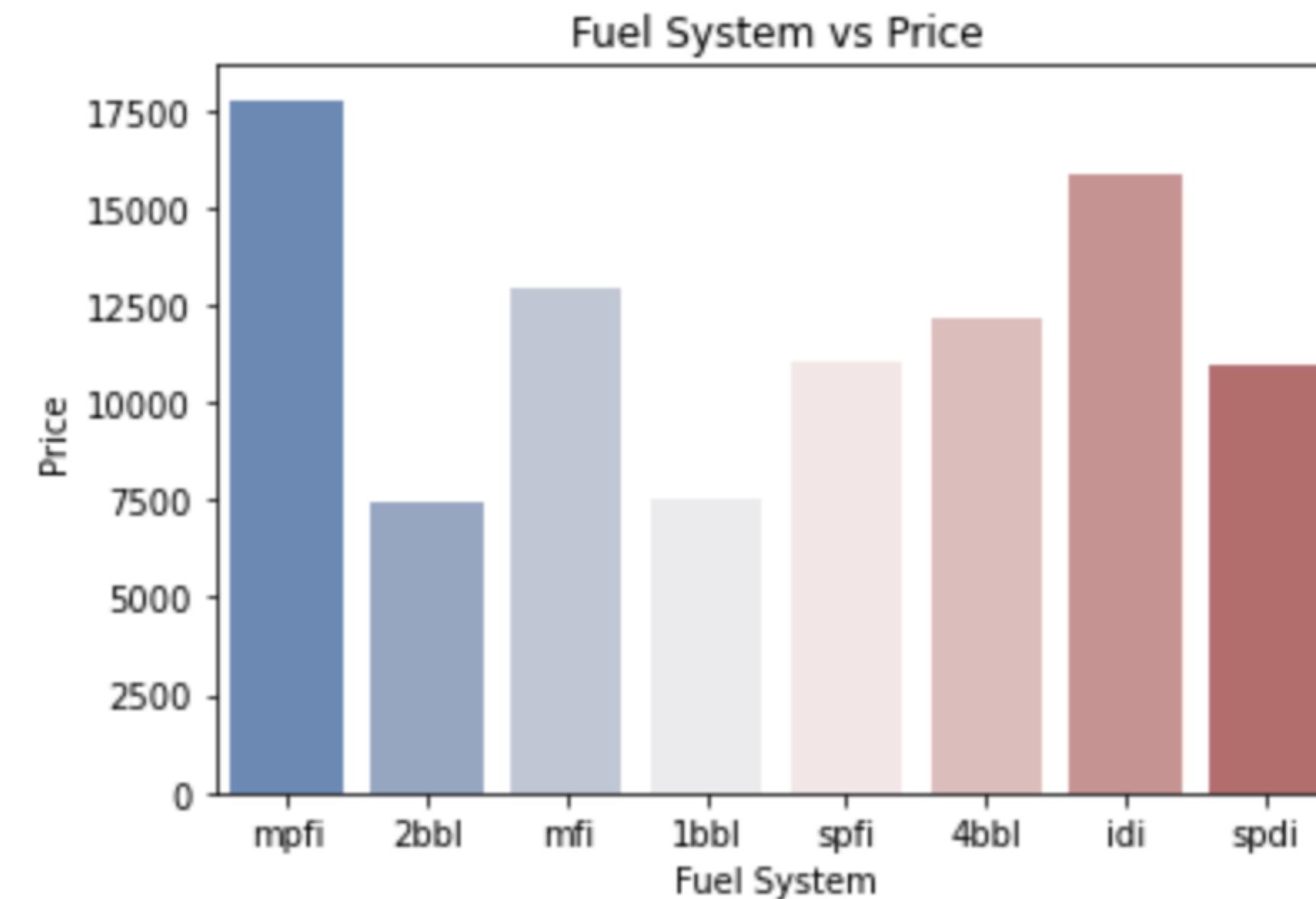
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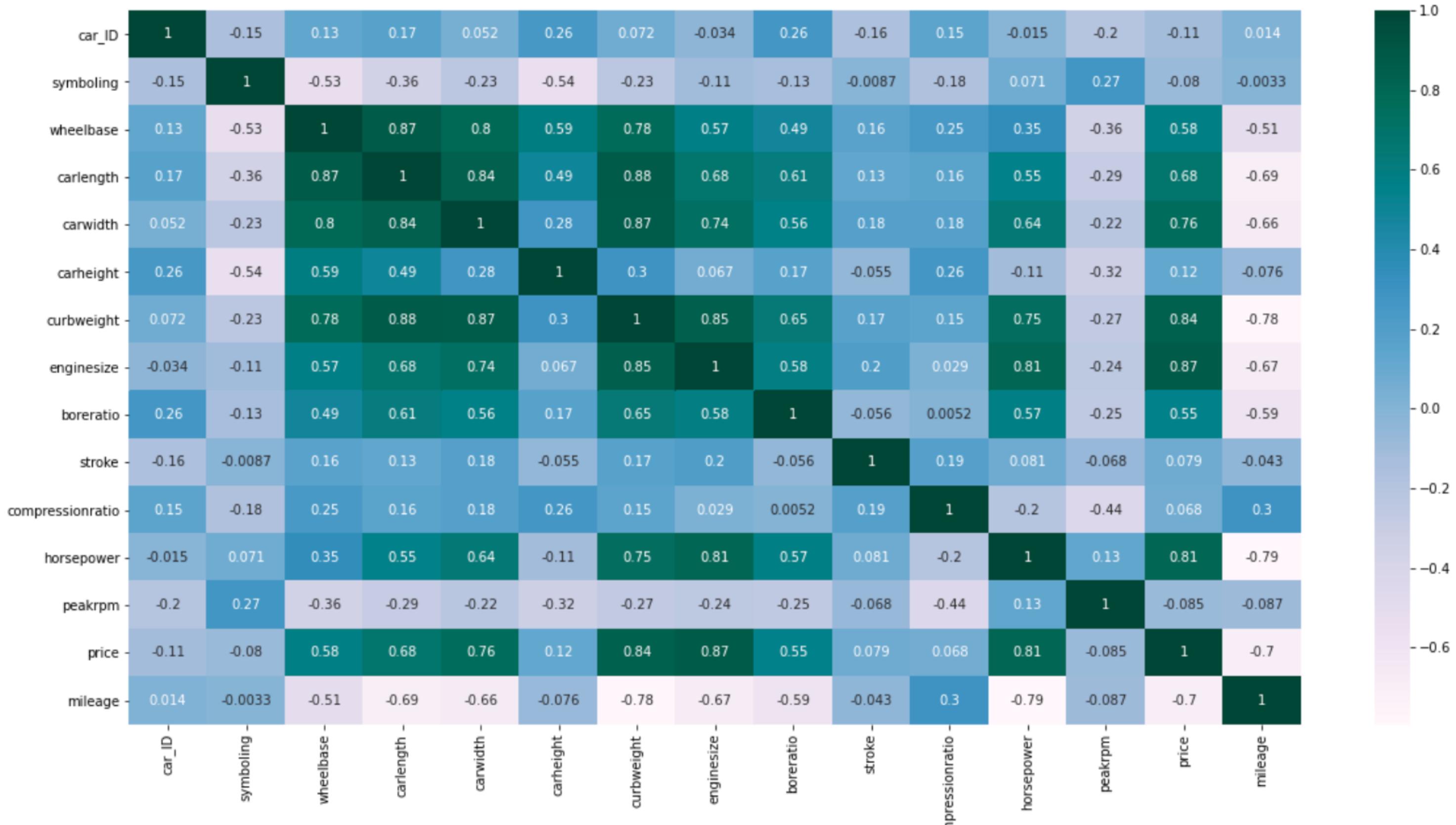
CONT: EXPOLARITY DATA ANALYSIS



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CONT: EDA

- After visualization we can derive some features that significantly affect the price .

PRE-PROCESSING

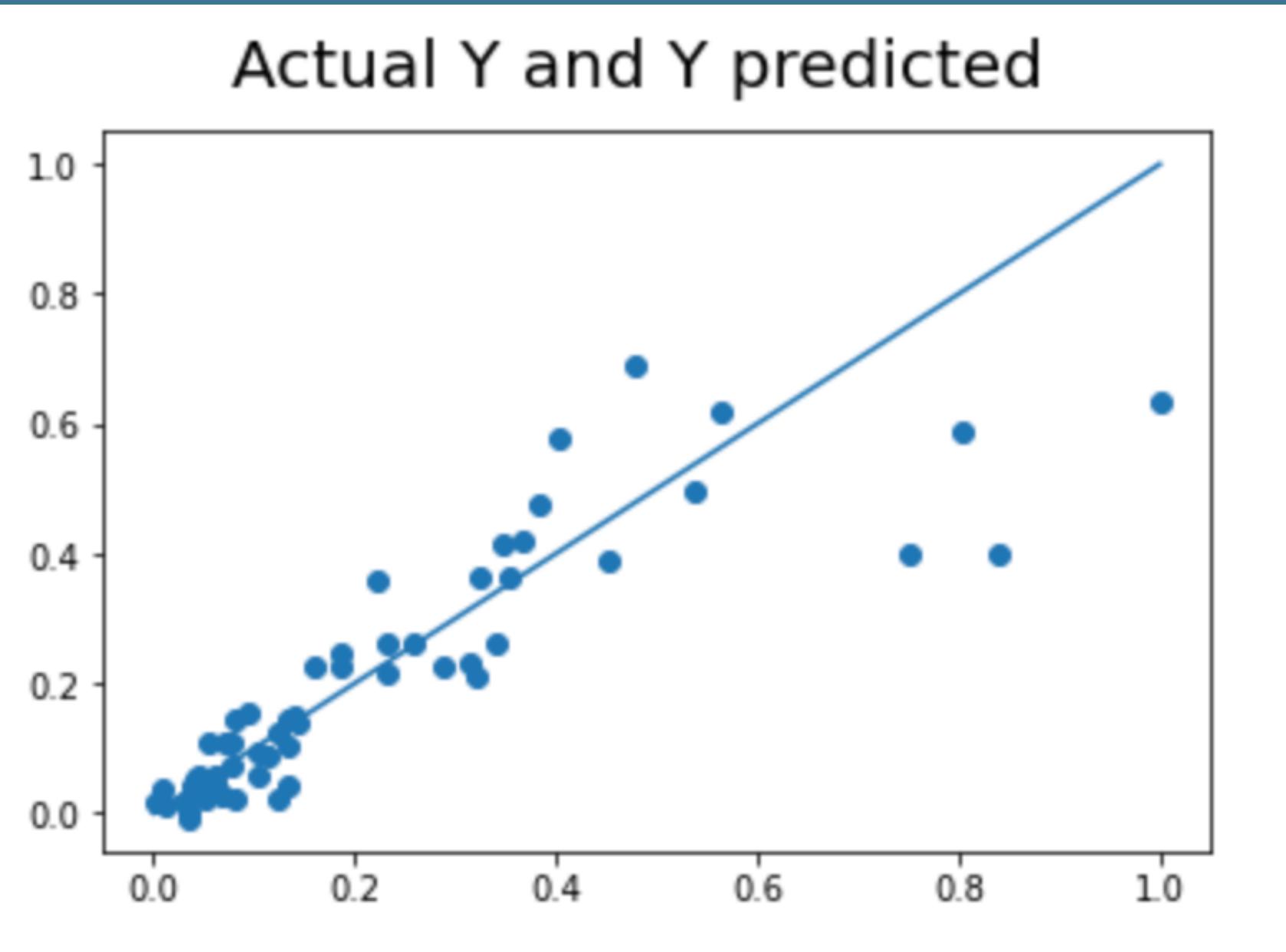
1. Converting categorical data into dummy variables
2. Derive a new features from our data
3. Scaled our data into the same scale
4. Created a new dataframe

MODELING

Linear Regression

- Split the data into train and test
- Sklearn library were used

MSE Test Score = 0.012

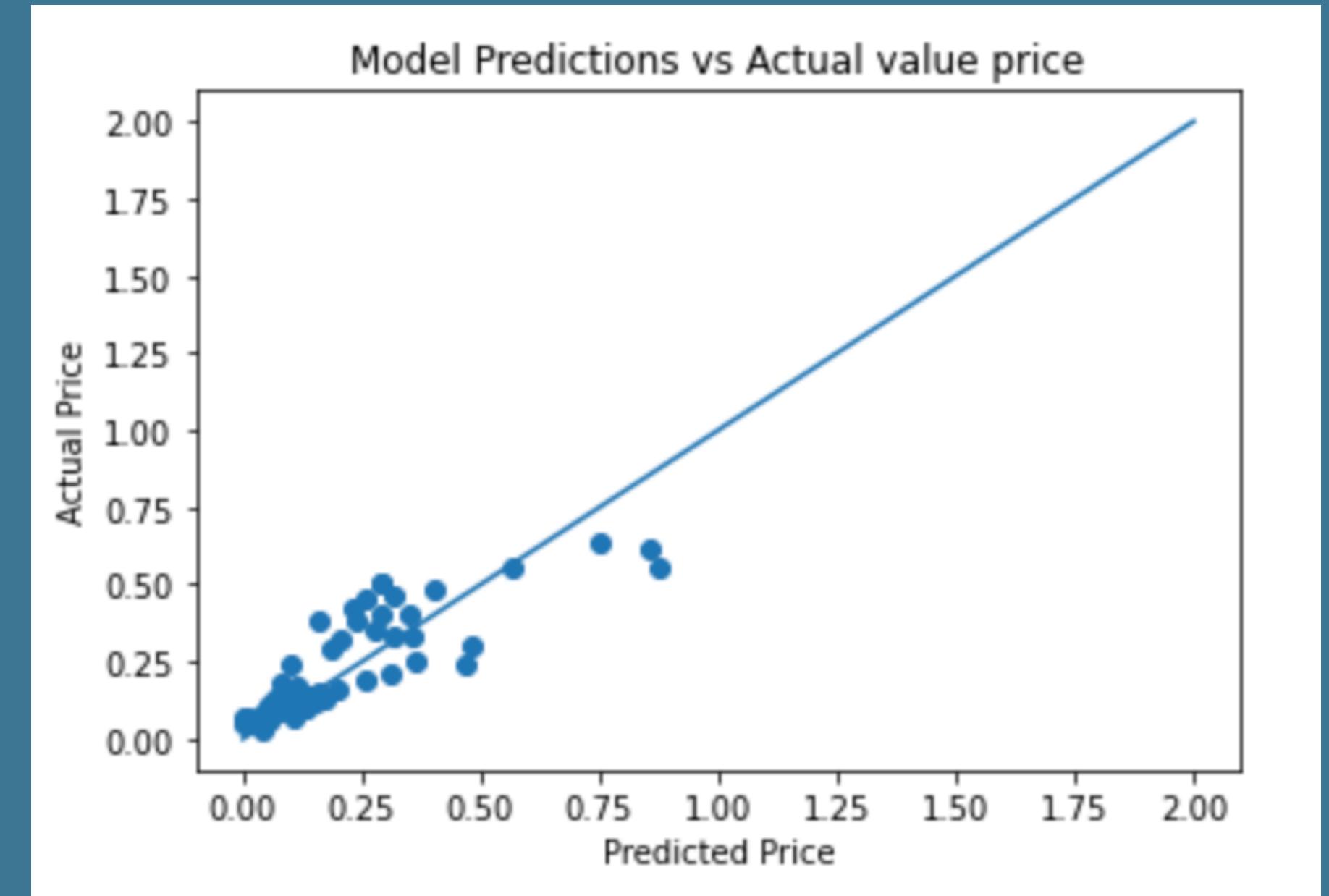


MODELING

Lasso Regression

- Split data into train and test
- The best Alpha value were 0.01

MSE Test Score = 0.012

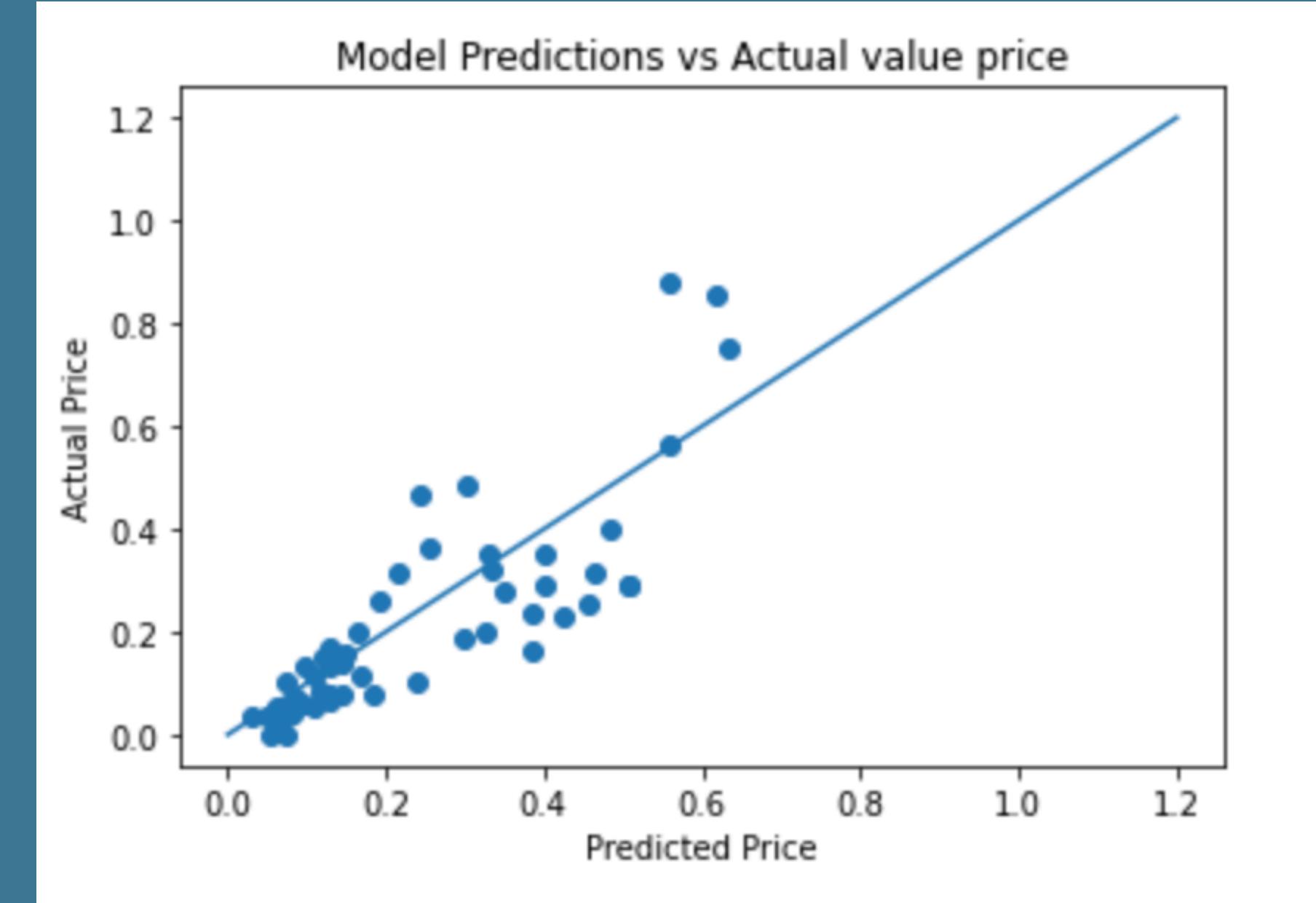


MODELING

Lasso Regression

- After Feature Selection

MSE Test Score = 0.011



CONCLUSION

The background features a dark teal color with abstract white shapes. On the left, there are two large, semi-transparent circles: one light blue circle at the top-left and one dark grey circle at the bottom-left. Overlaid on these circles are several thin, black, intersecting lines that form a grid-like pattern.

THANK YOU!

APPENDIX