

# CAR PRICE

REGRESSION

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# INTRODUCTION

- With the technological development, cars have become a necessity for the majority of people.
- This linear regression project aims to predict the prices of the cars in the future based on the most important characteristics that affect its value in the market.

# PROBLEM STATEMENT

- What is the effect of features on cars prices ?

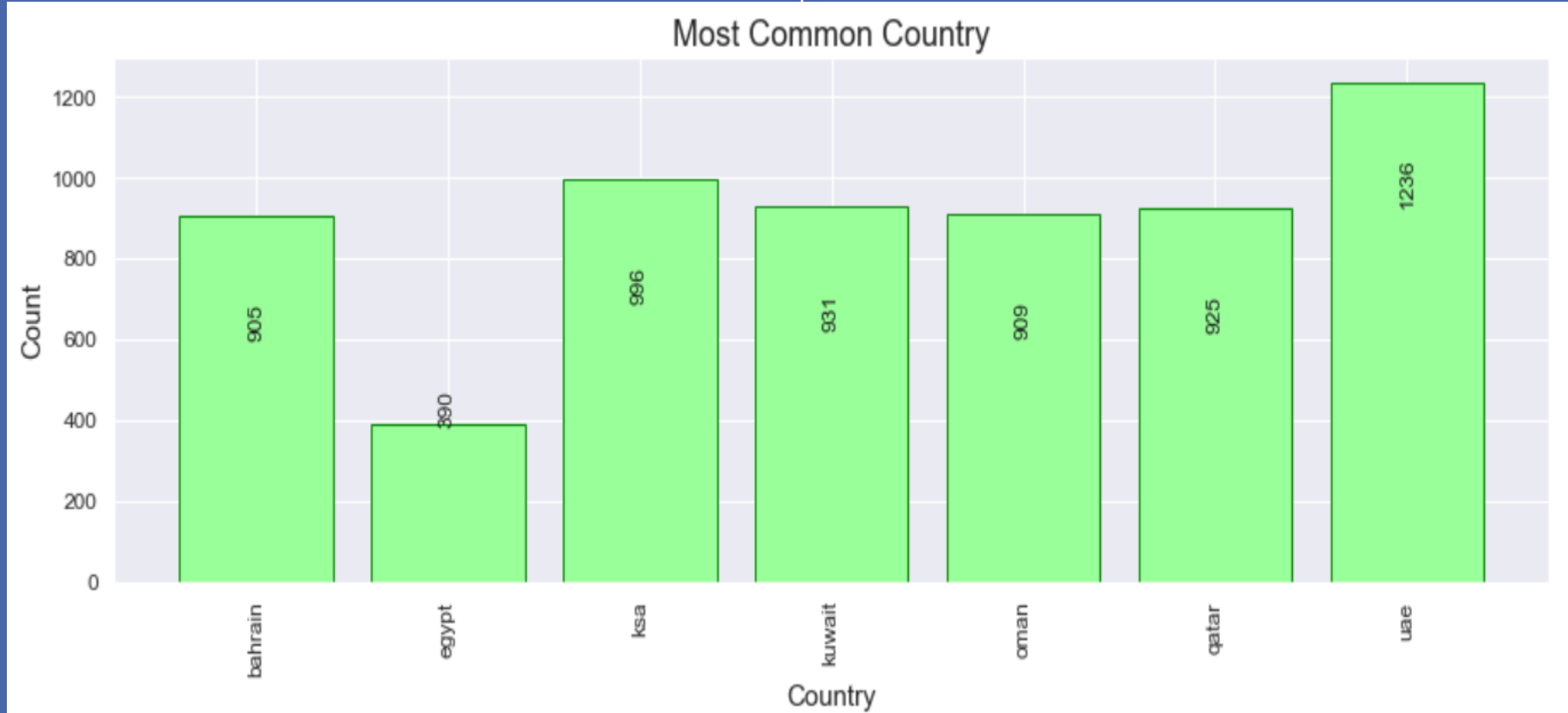
## •OBJECTIVE

- Predict cars prices Based on specific cars features.

# DATA SET

- The data to be tested in this project are scraped from [yallamotor.com/ar](http://yallamotor.com/ar)
- 6308 rows & 9 columns

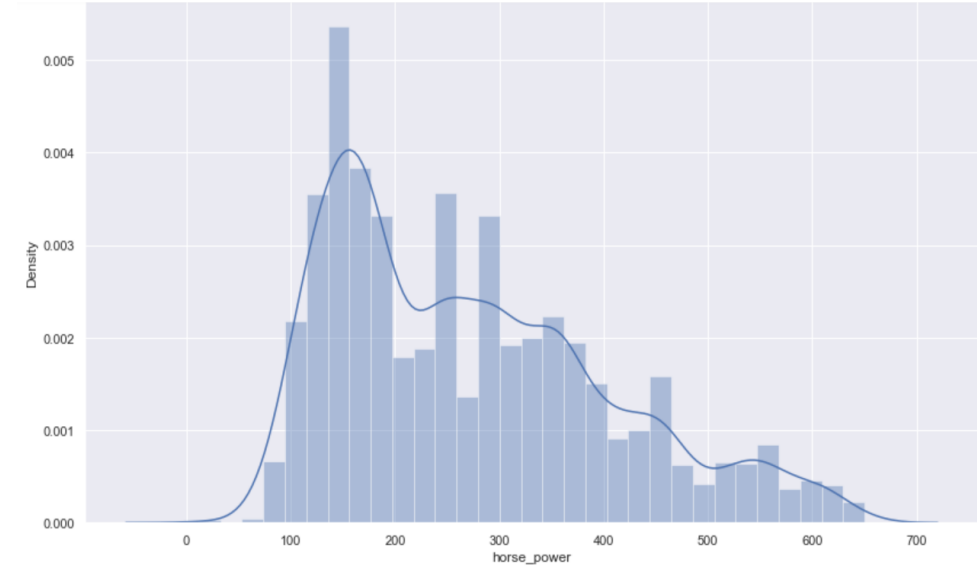
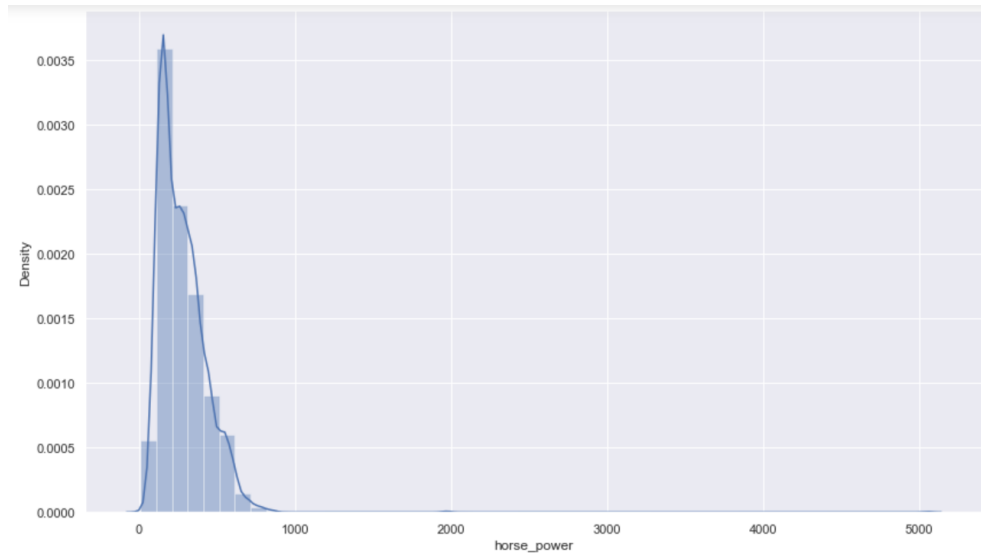
# Data Cleaning & Visualization



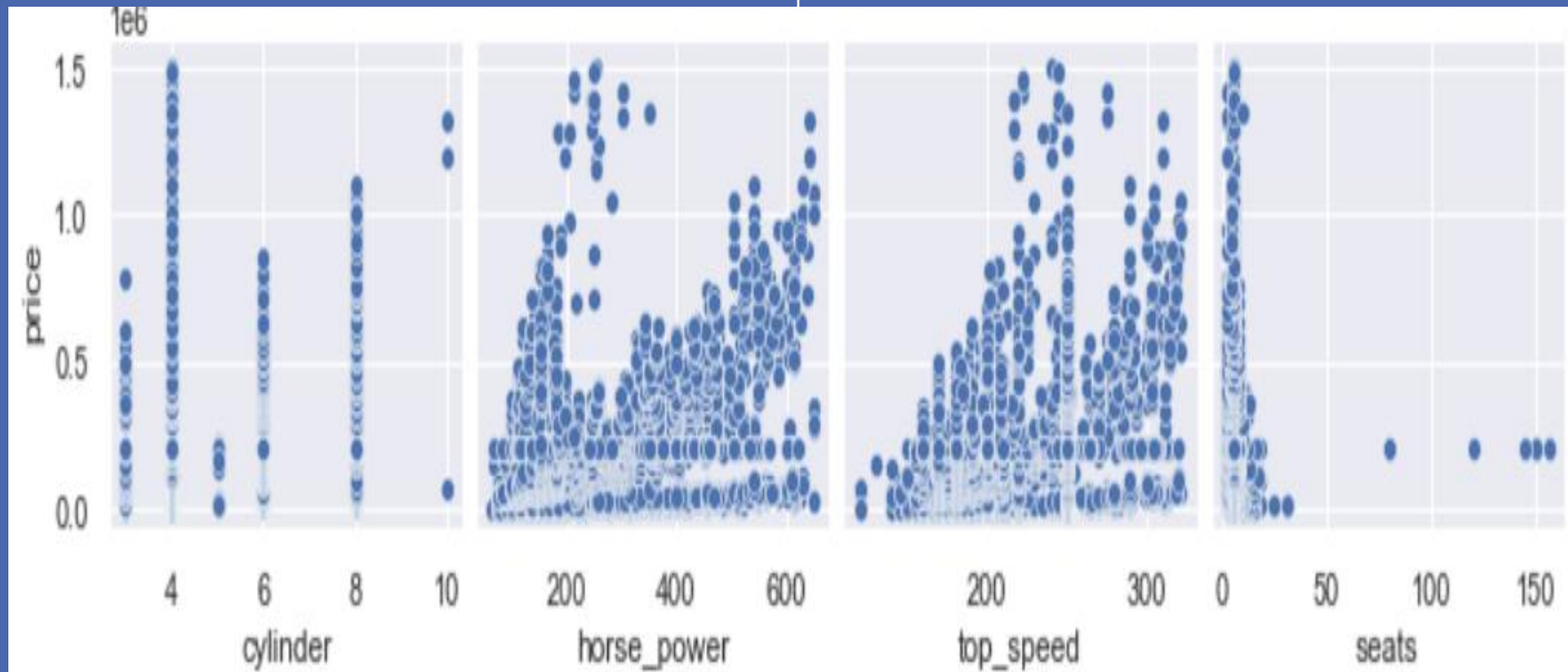
# Common Brand In Each Country



# Dealing with Outliers



## The Relation Between Features and Targets





# Tools

- **Pandas**
- **NumPy**
- **Matplotlib**
- **Seaborn**
- **Scikit-learn**
- **Math library**

## Tested Machine Learning Algorithms

Model	R <sup>2</sup> Train	R <sup>2</sup> Test
Linear Regression	0.822	-1.397
Decision tree regressor	0.464	0.512
Lasso Regression	0.807	0.817
Ridge Regression	0.822	0.588

The best model **Lasso Regression** is then **Ridge Regression**

# THANKS

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