

Assignment# 01: Linear and Multiple Linear Regression

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Dataset description:

The dataset contains car details with 26 columns/features like enginesize, fueltype, carlength, etc. The important target variable is price of car which is dependent on above features. We have used the same dataset for both linear and multiple linear regression.

Features list: Symboling, carCompany, fueltype, aspiration, doornumber, carbody, drivewheel, enginelocation, wheelbase, carlength, carwidth, carheight, curbweight, enginetype, cylindernumber, enginesize, fuelsystem, boreratio, stroke, compressionratio, horsepower, peakrpm, citympg, highwaympg, price(Dependent variable)

Linear Regression Model:

Independent variable : enginesize

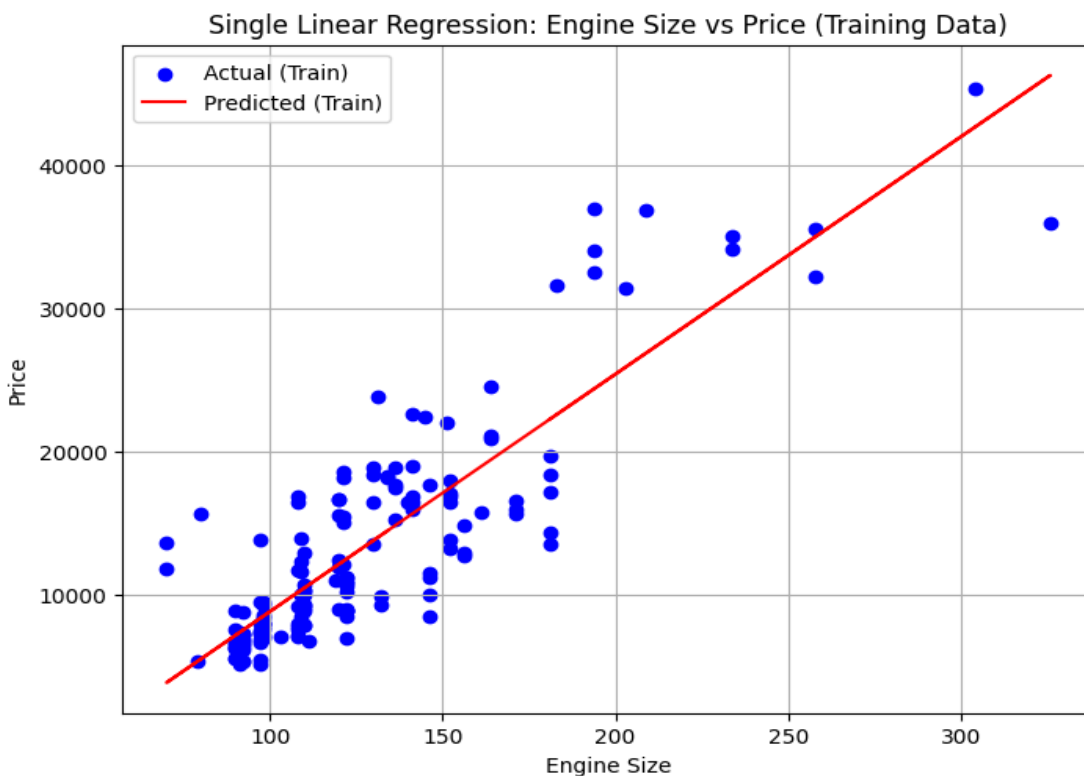
Output: price of car

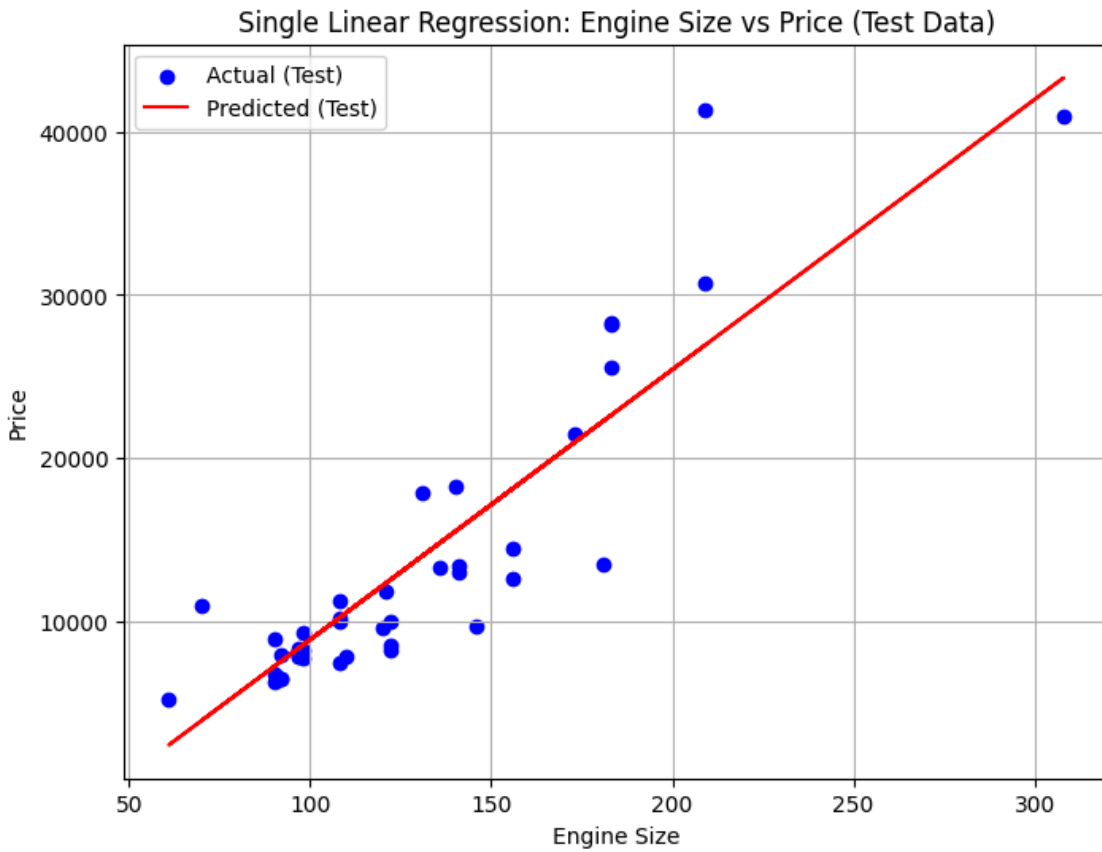
Multiple Linear Regression Model:

Input: enginesize, curbweight, horsepower, carwidth, carlength(top correlated features)

Output: price of car.

Chart plots for linear regression:

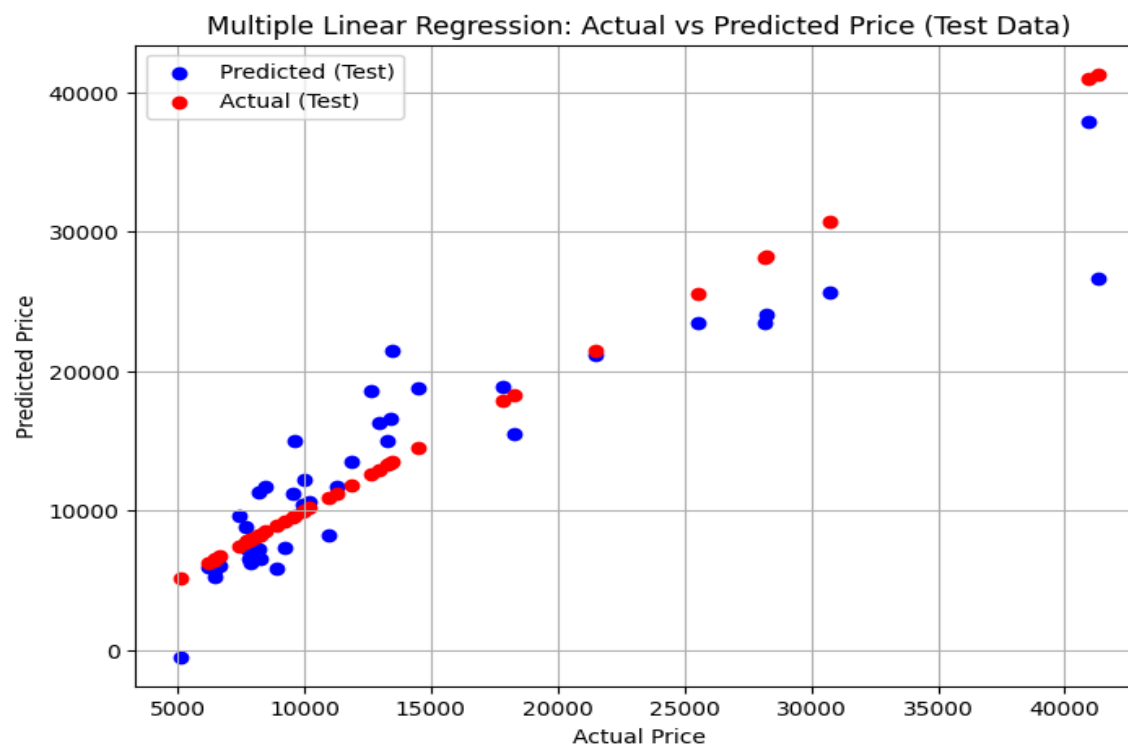
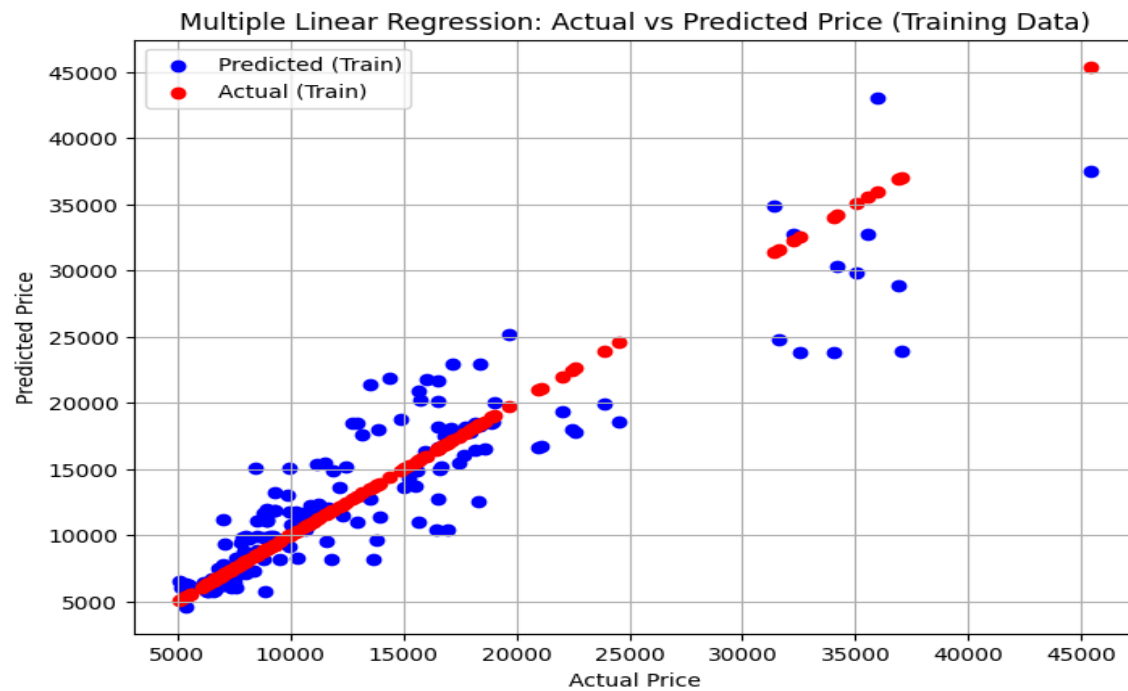




Sample predicted input and output for linear regression:

Engine Size	Actual Price	Predicted Price
209	30670	26919.74
121	11850	12325.42
120	9549	12159.58

Chart plots for multiple linear regression:



Sample predicted input and output for multiple linear regression:

Engine Size	Actual Price	Predicted Price
209	30670	25692.02
121	11850	13496.32
120	9549	11250.23

Link to dataset: <https://www.kaggle.com/datasets/hellbuoy/car-price-prediction/data>