EXER 1

Download fuel consumption dataset "FuelConsumption.csv", which contains model-specific fuel consumption ratings and estimated carbon dioxide emissions.

- Select the features 'ENGINESIZE', 'CYLINDERS', 'FUELCONSUMPTION_COMB', 'CO2EMISSIONS' to use for building the model. Plot Emission values with respect to Engine size.
- split the data into training and test sets (70:30) to create a model using training set, evaluate the model using test set, and use model to predict unknown value.
- Try to use a polynomial regression with the dataset of degree – 3, 4 & 5. Verify the accuracy by calculating Mean absolute error, Residual sum of squares, R2-score and comment on which model is the best.

EXER 2

Consider the 'HousePrice.csv' dataset which describes the features and sale price of a house. Build a regression model using regularization to predict the value of the properties.

1. Perform the preprocessing if required, scale the train and test data using standard scaler.
2. Split the dataset into train size of 70% and test size of 30% and Apply the Ridge and Lasso regression and fit the model containing all independent variables.
3. Make predictions on test data "HousePriceTest.csv" and tabulate performance of both models on unseen data.