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Practical Machine Learning Exercise 1: Warmup

In this exercise, we utilized the ElasticNet method for regression of the data. Subsequently, we performed two classification methods, namely Logistic Regression and K-Nearest Neighbor (KNN), on the data and obtained the respective accuracy values.

Data Preparation:

The data is partitioned into training and test sets using the 'train_test_split' function from the 'sklearn.model_selection' module. The function splits the data into two subsets, with 80% used for training and 20% for testing. The split is done with a random seed of 70 to ensure consistent results across different runs.

The output of the methods are as follows:

ElasticNet RMSE for TRAIN: 0.81

ElasticNet RMSE for TEST: 0.77

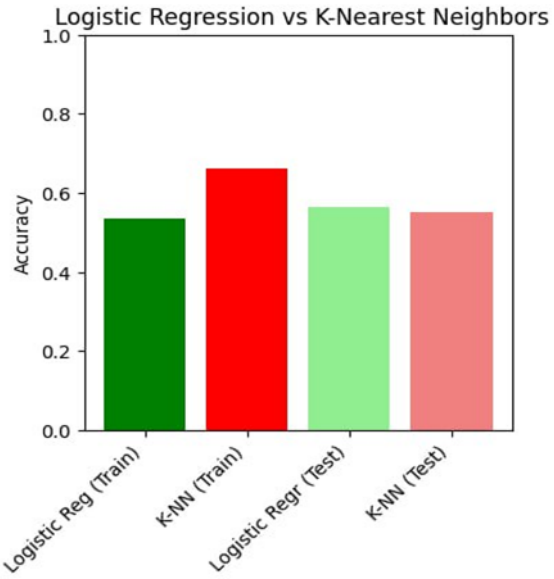
Logistic Regression Accuracy for TRAIN: 0.60

Logistic Regression Accuracy for TEST: 0.60

K-Nearest Neighbors Accuracy for TRAIN: 0.67

K-Nearest Neighbors Accuracy for TEST: 0.61

The following figures depict the results of classification methods:



The links for the Github repositories:

1-https://github.com/COSC5557/warmup-supersonic98

2-https://github.com/COSC5557/warmup-soudab