

Name: Akshay Pradeep Patade

CWID: 20009092

Mean square error for testing data set while creating the Linear Regression model on the original data: 55.628

Mean square error for testing data set while creating the Linear Regression model on the PCA Dataset: 68.313

We have used a linear regression model to predict BMI. While implementing Grid Search we got an optimal learning rate of 0.01. We used that learning rate to train our model.

Also, it seems that for both model after 50 iterations the error value get constant.

Also, it seems that if we apply PCA to our original dataset, the error value increased by 13.

Our model takes 15 seconds to get executed completely (considering both original data and PCA dataset).