**Question 1**

What is the optimal value of alpha for ridge and lasso regression? What will be the changes in the model if you choose double the value of alpha for both ridge and lasso? What will be the most important predictor variables after the change is implemented?

Answer: -

Ridge Alpha=100

Lasso Alpha-0.1

Double the alpha will lead the coefficient to shrink towards 0 and more linearity can be seen in the data set .

**Question 2**

You have determined the optimal value of lambda for ridge and lasso regression during the assignment. Now, which one will you choose to apply and why?

Answer: -

As our current model has number of predictors so Lasso will work better as it normalises the coefficient towards 0.

**Question 3**

After building the model, you realised that the five most important predictor variables in the lasso model are not available in the incoming data. You will now have to create another model excluding the five most important predictor variables. Which are the five most important predictor variables now?