Q1 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?

Ans
The optinam value of alpha for Ridge and Lasso regression is 1.

The slope of the regression line reduces and becomes horizontal as alphas value increases.

Q2 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?

Choosing Lasso Regression can be considered as a better option as it can help in feature elimination and make the model robust.

Q3 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?

Q4 How can you make sure that a model is robust and generalisable? What are the implications of the same for the accuracy of the model and why?