

Q1.

The optimal value selected in the Ridge and Lasso regression models is: Alpha = 4.0 and 0.001

Based on the graph of Alpha values for Ridge and Lasso that I have, when the Alpha value increases 2 times corresponding to Alpha = 8.0 and 0.002

We see a slight decrease in Score training (0.925 to below 0.925) but the score test hasn't changed much

In contrast to Lasso, both scores dropped sharply

Q2.

Use GridSearchCV to apply with Alpha lambda combined with cross validation with Kfold = 5

GridSearchCV will calculate and find the most suitable Alpha value by cross-validating Kfold times during training

Q3.

The five most important predictor variables

- *Constant*
- *Neighborhood_Crawfor*
- *GrLivArea*
- *OverallQual*
- ***OverallCond***

Q4.

The model with the training data must be good and when tested with the test data should not differ too much from the training data.

The model must be general with real data, similar to training data and test data.

At the same time, the model must be neither too complicated nor too simple