# Subjective Questions

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:

Optimal value for alpha for ridge regression: 1.0

Optimal value for alpha for lasso regression: 0.0001

After doubling the alpha values for ridge and lasso the r2 score reduced.

Top features: LotFrontage, BsmtFullBath, Overall Condition, Overall quality, MSZoning_RH, Garage Area, Exterior1st_CBlock, CentralAir

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:

I will choose lasso regression as it offers feature selection. Model accuracy is not compromised but unwanted features were removed.

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?

Answer:

Five most important predictor variables: LotArea, FullBath, 1stFlrSF, ExterCond, MSZoning_RH

4. 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?

Answer:

Model can be made more robust and general if 3 things are taken care:

a) Model accuracy should not be less than 75%
b) P-values of all the features are less than 0.05
c) VIF of the features are less than 5