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| Q-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? |
| Ans. | Optimal value of Alpha for Ridge=0.05  Optimal value of Alpha for Lasso=0.00010  As we increase value of Alpha, Coefficient values of feature decreases. more features have a coefficient of 0.Predictors are same. |
| Q-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? |
| Ans. | R squared value of lasso for test data set is higher than lasso for training dataset.so we will choose lasso. |
| Q-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? |
| Ans. | * 11stFlrSF,GrLivArea,Street\_Pave,RoofMatl\_Metal,RoofStyle\_Shed |
| Q-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? |
| Ans. | The model should be generalized so that the test accuracy is approximately equal to the training score.here,We didn’t consider outliers,so accuracy of model for prediction is high.Otherwise outlier removal treatment will be done to ensure accuracy of model.Model should be robust enough so that it will predict future unseen data correctly. |