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: The optimal value of alpha for ridge regression is 1.0 and lasso regression is 0.0001.
For Ridge Doubling it and making it 2.0 same for lasso:
There not much of change in coefficient but if you double the alpha the r2 score is slightly decreases.
Important Predictors: LotFrontage, BsmtFullBath, OverallCond, BsmtQual, MSZoning_RL

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: I will choose lasso regression as it makes coefficients to zero, which helps more better to find predictors.

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: LotArea,FullBath, BsmtExposure, Exterior1st_BrkFace, OverallQual.

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: three features are required:
Model accuracy: should be >70-75%
P- Values of all features should be < 0.05
VIF of all feature should be < 5