# Problem Statement - Part II

## Assignment Part-II

### Question 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?

- ⇨ The optimal value of Lasso is 0.01 and Ridge is 1.
- ⇨ The value decreases when alpha is doubled.

### Question 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?

- ⇨ I would choose Lasso regression over Ridge regression as the values of Lasso is higher than the Ridge.

### Question 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?

- ⇨ The 5 important variables as per analysis are:
  - Overall quality
  - FullBath
  - YearRemodAdd
  - GarageCars
  - KitchenAbvGr

### Question 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?

- ⇨ To make sure the model is robust and generalized we must first treat the dataset and make sure there are no duplications and outliers in the data set. The model must also be fed with enough of training data for it to learn.
- ⇨ It plays a major role in accuracy of data as if it is fed with incorrect data(mainly outliers) ,duplicate data or less training data it may perform good during training but perform bad with the test set.