1.Optimal value of alpha for lasso and ridge is 15.This we have selected according to the graph plotted between the mean_train_score and mean_test_score.At this point both these score were at optimal value.If we double the value of lambda then to maintain the tradeoff the value of features/hypothesis has to be reduced and thus the model will be at lower complexity because of less features.

2.We chose to apply lasso in place of ridge because of the feature selection technique of lasso.Also r2 value of the same was also good.

3.According to the lasso coefficients the features will be as follows:

BsmtUnfSF
TotalBsmtSF
1stFlrSF
2ndFlrSF
LowQualFinSF

4.The model is good as the r2 value was 0.85 and thus we were able to catch 85% variability.