# Statistical Learning Lab

## Assignment - 1

## Linear Regression Assignment

**Show the code snippets and the corresponding output for the following:**

1. Load the dataset "manufacturing.csv". Display first few rows of the dataset.
2. Perform matrix plot and correlation analysis indicate if there is any correlation among the predictors
3. Fit a Linear Regression model without the interaction term. From the linear regression summary which factors seem to be significant?
4. What is your interpretation R-sq and R-sq adjusted?
5. Perform normal probability plot of residuals and comment on model adequacy.
6. Randomly sample 20% of the data and keep it as test data. Use rest of the 80% data to train the linear model. What is the RMSE on test data?