**Assignment 7.4**

1. Use the below given data set

DataSet

Problem- prediction of the number of comments in the upcoming 24 hours on those blogs, The train data was generated from different base times that may temporally overlap. Therefore, if you simply split the train into disjoint partitions, the underlying time intervals may overlap. Therefore, the you should use the provided, temporally disjoint train and test splits to ensure that the evaluation is fair.

a. Read the dataset and identify the right features

b. Clean dataset, impute missing values and perform exploratory data analysis.

c. Visualize the dataset and make inferences from that

d. Perform any 3 hypothesis tests using columns of your choice, make conclusions

e. Create a linear regression model to predict the number of comments in the next 24 hours (relative to basetime)

f. Fine tune the model and represent important features

g. Interpret the summary of the linear model

h. Report the test accuracy vs. the training accuracy

i. Interpret the final model coefficients

j. Plot the model result and compare it with assumptions of the model