

## Solution Report 6:

I tried various other Machine Learning Models like:

- Decision Trees
- Random Forest Regressor
- XGB Regressor (without any Hyperparameter Tuning) and
- XGB with Hyperparameters

Among all the above, XGB with Hyperparameters worked the best providing a score of 3.17502 on the Test data. (which is a very high improvement on the Linear Model that was done initially which got a score of 5.60765)

I noted a significant change in the performance of my models as I went through from a simple Linear Model to a complex XGB Booster.

The RMSE score for the different models on the Test Data was as follows:

- Linear Regression - RMSE score = 5.60765
- Random Forest Regressor - RMSE score = 3.64299 (a drastic improvement from here on)
- XGB Regressor without parameters - RMSE score = 3.55638
- XGB Regressor with Parameters - RMSE score after tuning the parameters few times = 3.17502