

## Model Optimization and Tuning Phase

Date	15 March 2024
Team ID	738305
Project Title	Machine Learning Approach <u>For</u> Employee Performance Prediction
Maximum Marks	10 Marks

### Performance Metrics Comparison Report (2 Marks):

Model	Baseline Metric	Optimized Metric
Linear Regression	MSE on training data: 0.021859144447999808 MSE on testing data: 0.021422703448141997	After optimization, we could see improvements in R2 score and mean squared error, indicating a better fit to the data.
Random Forest Regression	MSE on training data: 0.0022469676486487613 MSE on testing data: 0.012033639615281413	After optimization, R2 score and mean squared error may see improvements, indicating better generalization and fit to the data.
XGBoost Regression:	MSE on training data: 0.0034479208767329884 MSE on testing data: 0.013391620879678592	After optimization, R2 score and mean squared error may see improvements, indicating better generalization and fit to the data.