Model Optimization and Tuning Phase Report

Date	10th july 2024
Team ID	team-739701
Project Title	Hospital Readmission Predictor Using Machine Learning
Maximum Marks	10 Marks

Model Optimization and Tuning Phase

The Model Optimization and Tuning Phase involves refining machine learning models for peak performance. It includes optimized model code, fine-tuning hyperparameters, comparing
performance metrics, and justifying the final model selection for enhanced predictive accuracy and efficiency.

Hyperparameter Tuning Documentation (6 Marks):

Model	Tuned Hyperparameters	Optimal Values
Decision Tree	-	-
Random Forest	-	-
KNN	-	-

Gradient Boosting	-	-

Performance Metrics Comparison Report (2 Marks):

Model	Optimized Metric
Decision Tree	-

Random Forest	-
KNN	-
Gradient Boosting	-

Final Model Selection Justification (2 Marks):

Final Model	Reasoning
Random	

Forest	the random forest model was selected for its superiror performance ,exhibiting high accuracy during with project objectives,justifying its selection as the final model.