

Model Optimization and Tuning Phase Report

Date	21 june 2024
Team ID	739940
Project Title	Gem Valuation Revolution: Predicting Diamond Prices With Artificial Neural Networks
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	<div></div> <p>-</p>

Random Forest	-
KNN	-
Gradient Boosting	-

Final Model Selection Justification (2 Marks):

Final Model	Reasoning
Gradient Boosting	