Model Optimization and Tuning Phase Template

Date	14th July 2024
Team ID	739959
Project Title	Sentiment Analysis of Commodity News (Gold)
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
Random Forest	-	-
Decision Tree	-	-
Gradient Boosting Regressor	-	-

Performance Metrics Comparison Report (2 Marks):

Model	Baseline Metric	Optimized Metric

Random Forest	-	-
Decision Tree	-	-
Gradient Boosting	-	-

Final Model Selection Justification (2 Marks):

Final Model	Reasoning
Logistic Regression	Logistic regression is a statistical model used for binary classification that predicts the probability of a binary outcome based on one or more predictor variables. It uses a logistic function to model the relationship between the dependent variable and the independent variables. Logistic regression is widely used in various fields for its simplicity, efficiency, and interpretability in predicting categorical outcomes