Model Optimization and Tuning Phase Template

Date	10 November 2024
Team ID	739730
Project Title	Figurative Intelligence: Machine Learning for Simile and Metaphor Detection
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
Logistic Regression	Regularization parameter (C), Penalty (l1/l2)	C = 0.1, Penalty = l2

Performance Metrics Comparison Report (2 Marks):

Model	Baseline Metric	Optimized Metric
Logistic Regression	Accuracy = 75.3%	Accuracy = 78.5%

Final Model Selection Justification (2 Marks):

Final Model	Reasoning
Linear Regression	Got good Accuracy