Model Development Phase Template

Date	27 January 2025
Team ID	SWUID20240011509
Project Title	Restaurant Recommendation System
Maximum Marks	6 Marks

Model Selection Report

In the forthcoming Model Selection Report, various models will be outlined, detailing their descriptions, hyperparameters, and performance metrics, including Accuracy or F1 Score. This comprehensive report will provide insights into the chosen models and their effectiveness.

Model	Description	Hyperparameters	Performance Metric (e.g., Accuracy, F1 Score)
Random Forest	Ensemble of decision trees; robust, handles complex relationships, reduces overfitting, and provides feature importance for restaurant recommendation	-	Accuracy score = 81%
Decision Tree	Simple tree structure; interpretable, captures non-linear relationships, suitable for initial insights patterns.	-	Accuracy score = 73%
KNN	Classifies based on nearest neighbors; adapts well to data patterns, effective	-	Accuracy score = 77%

	for local variations criteria.		
Gradient Boosting	Gradient boosting with trees; optimizes predictive performance, handles complex relationships, and is suitable for accurate predictions.	-	Accuracy score = 81%