

Model Development Phase Template

Date	12 Dec 2025
Team ID	RT
Project Title	Restaurant Recommendation System
Maximum Marks	6 Marks

Model Selection Report

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

Model Selection Report:

Model	Description	Hyperparameters	Performance Metric (e.g., Accuracy, F1 Score)
TF-IDF Content- Based	Vectorizes combined cuisine/name/location text ("soup") for cosine similarity ranking	max_features=5000, ngram_range=(1,2), stop_words=english	Success Rate: 85.7% (12/14), Avg Similarity: 0.446-0.601, Diversity: 6.2 chains/10, Latency: 5.9ms

Model Justification: Selected for content-based filtering—semantic matching beats keyword/random baselines; 85.7% success on diverse queries (Pizza/Biryani/Chinese); production-ready at 5.9ms.