

Model Development Phase Template

Date	18 June 2025
Team ID	SWTID1749631993
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 Selection Report:

Model	Description	Hyperparameters	Performance Metric (e.g., Accuracy, F1 Score)
TF-IDF vectorization	Converts the text reviews into numerical feature vectors using Term Frequency–Inverse Document Frequency to highlight important words.	ngram_range=(1, 2), stop_words='english'	Not Applicable
Recommendation System based on TF-	Computes restaurant similarity using	n_neighbors=11, algorithm='brute', metric='cosine'	Not applicable (evaluated through relevance of output)

IDF and Nearest Neighbors	cosine distance on TF-IDF vectors. Recommends restaurants based on the nearest neighbors in vector space.		
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Since our system uses unsupervised recommendation based on TF-IDF and cosine similarity, traditional evaluation metrics like classification accuracy or confusion matrix do not apply