

ModelDevelopmentPhaseTemplate

Date	14 June2025
Name	Pooja Rajendra Chougule
Project Title	Restaurant Recommendation System
Maximum Marks	10 Marks

Initial Model Training Code, Model Validation and Evaluation Report

Initial Model Training Code (5 marks):

```
from sklearn.feature_extraction.text import CountVectorizer
from sklearn.feature_extraction.text import TfidfVectorizer
df_percent.set_index('name', inplace=True)
indices = pd.Series(df_percent.index)

# Creating tf-idf matrix
tfidf = TfidfVectorizer(analyzer='word', ngram_range=(1, 2), min_df=0, stop_words='english')
tfidf_matrix = tfidf.fit_transform(df_percent['reviews_list'])

cosine_similarities = linear_kernel(tfidf_matrix, tfidf_matrix)
```

Model Validation and Evaluation Report(5marks):

Model	Summary	TrainingandValidationPerformance Metrics
Model1	Content-basedRecommendation	TrainingMetrics -None(unsupervised,no explicit training phase) Validation Metrics - None (recommendationsareinspectedmanually)