

Model Development Phase Template

Date	25 july 2025
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ProjectTitle	Restaurant Recommendation System
MaximumMarks	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	Training and Validation Performance Metrics
Model1	Content-basedRecommendation	TrainingMetrics -None(unsupervised,no explicit training phase) Validation Metrics - None (recommendationsareinspectedmanually)

