Project Development Phase Model
Performance Test

Date	20 November 2023
Team ID	Team-593004
Project Name	Restaurant Recommendation System
Maximum Marks	10 Marks

Model Performance Testing:

Project team shall fill the following information in model performance testing template.

S.No	Parameter	Values	Screenshot
1.	Model Summary	**Total params: 51717** **Trainable params: 51717** **Non-trainable params: 0**	`print(tfidf_matrix)` (0, 335) 0.09050558119962672 (0, 302) 0.03341453473377206 (0, 446) 0.033819809167502435 (0, 469) 0.03982172027872017 (0, 145) 0.04324949701661939 (0, 156) 0.04217634229937303 (0, 331) 0.031157519690629614 (0, 343) 0.02992869453363663 (0, 166) 0.042330936225375745 (0, 332) 0.03870388657349989 (0, 55) 0.04290934997295113 (0, 468) 0.03922481562431514 (0, 467) 0.0944860488521032 (0, 466) 0.1889720977042064 (0, 471) 0.1890022828493481 (0, 472) 0.0944860488521032 (0, 189) 0.04280548380396971

2.	Accuracy	[0.50221598 1. 0.55987946 ... 0.6139914 0.41495973 0.4763919]
		[0.58470442 0.55987946 1. ... 0.73342327 0.5831625 0.60333686]
		...
		[0.73308211 0.6139914 0.73342327 ... 1. 0.83368403 0.79002275]
		[0.75703156 0.41495973 0.5831625 ... 0.83368403 1. 0.83355381]
		[0.73391875 0.4763919 0.60333686 ... 0.79002275 0.83355381 1.]]
			`from sklearn.metrics.pairwise import cosine_similarity`
			`cosine_similarities = cosine_similarity(tfidf_matrix, tfidf_matrix)`
			`print(cosine_similarities)`
			[[1. 0.50221598 0.58470442 ... 0.73308211 0.75703156 0.73391875]
			[0.50221598 1. 0.55987946 ... 0.6139914 0.41495973 0.4763919]
			[0.58470442 0.55987946 1. ... 0.73342327 0.5831625 0.60333686]
			...
			[0.73308211 0.6139914 0.73342327 ... 1. 0.83368403 0.79002275]
			[0.75703156 0.41495973 0.5831625 ... 0.83368403 1. 0.83355381]
			[0.73391875 0.4763919 0.60333686 ... 0.79002275 0.83355381 1.]]

3.	Confidence Score (Only Yolo Projects)	Class Detected - NA Confidence Score - NA	Not Applicable

Screenshot:

Model Summary

```
# tfidf_matrix = tfidf.fit_transform(zomato_df['reviews_list'])
print(tfidf_matrix)
```

```
  (0, 335)      0.09050558119962672
  (0, 302)      0.033414534733777206
  (0, 446)      0.033819809167502435
  (0, 469)      0.03982172027872017
  (0, 145)      0.04324949701661939
  (0, 156)      0.04217634229937303
  (0, 331)      0.031157519690629614
  (0, 343)      0.029928694533636663
  (0, 166)      0.042330936225375745
  (0, 332)      0.038703886573499889
  (0, 55)       0.04290934997295113
  (0, 468)      0.03922481562431514
  (0, 467)      0.09444860488521032
  (0, 466)      0.1889720977042064
  (0, 471)      0.1890022828493481
  (0, 472)      0.09444860488521032
  (0, 189)      0.04280548380396971
  (0, 329)      0.03568166923014868
  (0, 339)      0.038358999398359285
  (0, 369)      0.036791004418424222
  (0, 161)      0.036672996856565444
  (0, 10)       0.039961090756070799
  (0, 336)      0.168097635371377766
  (0, 218)      0.118021038902180922
  (0, 288)      0.256009265466434151
  ...
  (9999, 268)   0.04135888868783523
  (9999, 143)   0.0424651069661403
  (9999, 134)   0.1828155969602061
  (9999, 33)    0.03320641661637617
  (9999, 394)   0.016439960901681205
  (9999, 279)   0.027375687337698903
  (9999, 364)   0.031942543262025884
  (9999, 273)   0.09269938348465552
  (9999, 155)   0.12301698001865648
  (9999, 9)     0.052145869261182684
  (9999, 352)   0.046533653139045054
  (9999, 119)   0.06598837968106228
  (9999, 93)    0.047504760766281684
  (9999, 57)    0.03125766918845868
  (9999, 197)   0.005012970206746646
  (9999, 368)   0.08453730277533007
  (9999, 407)   0.022089535857708068
  (9999, 15)    0.02311572560239967
  (9999, 187)   0.08656085888112043
  (9999, 199)   0.05054805899502103
  (9999, 458)   0.00706326952935652
  (9999, 293)   0.035272666666768827
  (9999, 191)   0.061047940672636296
  (9999, 298)   0.18234967217823245
  (9999, 326)   0.34765365197641407
```

cosine_similarities

```
[22]: from sklearn.metrics.pairwise import cosine_similarity
      cosine_similarities = cosine_similarity(tfidf_matrix, tfidf_matrix)
      print(cosine_similarities)
```

```
[[1.         0.50221598 0.58470442 ... 0.73308211 0.75703156 0.73391875]
 [0.50221598 1.         0.55987946 ... 0.6139914  0.41495973 0.4763919 ]
 [0.58470442 0.55987946 1.         ... 0.73342327 0.5831625  0.60333686]
 ...
 [0.73308211 0.6139914  0.73342327 ... 1.         0.83368403 0.79002275]
 [0.75703156 0.41495973 0.5831625  ... 0.83368403 1.         0.83355381]
 [0.73391875 0.4763919  0.60333686 ... 0.79002275 0.83355381 1.        ]]
```