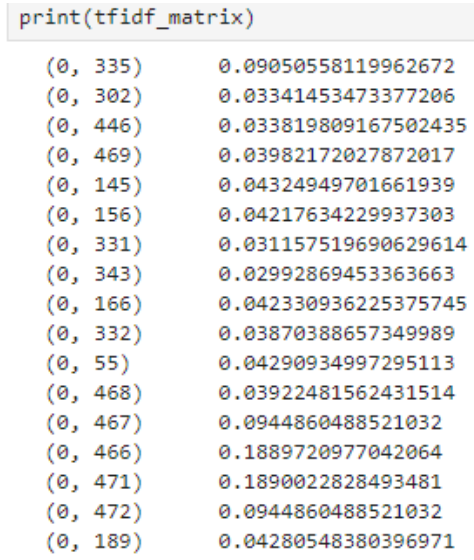
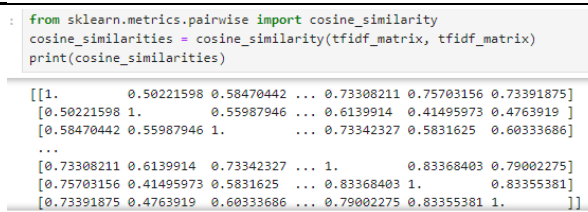


**Project Development Phase Model
Performance Test**

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	 <pre>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</pre>
2.	Accuracy	<pre>[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.]]</pre>	 <pre>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.]]</pre>

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

Model Summary

```
# tfidf_matrix = tfidf.fit_transform(zomato_df['reviews_list'])
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
(0, 329)    0.03568166923014868
(0, 339)    0.03835899398359285
(0, 369)    0.03679100441842422
(0, 161)    0.03667299685656544
(0, 10)     0.03996109075607079
(0, 336)    0.16809763537137776
(0, 218)    0.11802103890218092
(0, 288)    0.25600926546643415
...

(9999, 268) 0.0413588868783523
(9999, 143) 0.0424651069661403
(9999, 134) 0.1028155969602061
(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) 0.0352726666768827
(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.          ]]]
```