

- a) Below is a sample test case i run on my code and got the output

This takes input as image id and review id that is given in the database and shows output ID along with their cosine score.

enter image id: 22\_0

Enter review ID: 22

Combined and Ranked Results:

```
[('107', {'image': [0.99993104], 'review': 0.36968912635590456, 'average':  
0.6848100818909497}), ('1576', {'image': [0.99993104], 'review': 0.27215145836804666,  
'average': 0.6360412478970208}), ('1560', {'image': [0.9827598], 'review': 0, 'average':  
0.49137988686561584}), ('61', {'image': [], 'review': 0.20575911682685097, 'average':  
0.10287955841342548})]
```

- b) As seen in the above example as well image retrieval is more near to the combined retrieval output  
Review does change the rank of 1st and 2nd output but does not make a big difference  
So in my case image retrieval technique gives better similarity score.
- c) Potential improvement involves feedback mechanism from user that can be implemented to refine the retrieval.