**Reccomendation engine**

**Business objective:** recommend a joke based on user.

So , The data set contains of user\_id, joke\_id, ratings . I have done a random sampling by taking the first 10 thousand rows as my pc was not supporting the 50000 matrix. So from my sample I have first checked for null values and then I have used mean imputation for filling those values.Then I have found the cosine based similarity to find how related are the users to their jok\_id and ratings. Then I Have performed user based collaborative filtering and found adviced the close recommendation jokes based on his ratings ,which he have given to a particular joke\_id.

joke\_index[1159]

index user\_id score

0 62 3695 6684.72

1 68 35734 6684.72

2 198 5481 6684.72

3 1698 711 6684.72

4 3627 11302 6684.72

5 4138 37133 6684.72

Out[15]: 80