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**Subject: Python Programming**

**Task 01**

**Cast:-**  As you can see from the observation that top three cast are marlon Brandon, James Stewart, Orson:6 Welles:5 which shows they have topped in the best 500 movies of all time.

**Director:-** AS per observation Alfread Hitchcock: 12, Martin Scorses: 8, George Cukor: 6 which shows they have topped the director list in the best 500 movies of all tme.

So, we can say that as per data both the actor collaborate and make their successful.

We can say there are chances that both director and actor have worked in many movies since they know their skills and successful career but to get the growth they collaborate and work together which make them more popular.

Hence as per the observation I can say that from seeing the data of 500 movies the successful actors and director contribute to work together to make growth in their career.

**Task 02:**

For the simplicity I have taken Alfred Hitchcock as the first director and Martin Scorsese as second director in the task two.

If you run the cosine value for both of them it gets 0.

But there vector value are [1, 1, 1, 1, 0, 1, 0, 2, 0, 0, 1, 1, 1, 0, 1, 1, 0, 0, 0, 1, 1, 1, 0, 0, 1, 1, 1, 0, 1, 1, 0, 1, 1, 0, 1, 1, 1, 1, 1, 0, 1, 1, 1, 0, 1, 0, 0, 0, 2, 1, 1, 1, 1, 0, 1, 1, 1, 0, 1, 1, 0, 0, 1, 1, 0, 1, 0, 1, 1, 1, 0, 1, 1, 1, 1, 1, 0, 1, 1, 1, 1, 1, 1, 0, 0, 1, 0, 0, 1, 0, 1, 1, 1] [0, 0, 0, 0, 1, 0, 1, 0, 1, 1, 0, 0, 0, 1, 0, 0, 1, 1, 1, 0, 0, 0, 1, 1, 0, 0, 0, 1, 0, 0, 1, 0, 0, 1, 0, 0, 0, 0, 0, 1, 0, 0, 0, 1, 0, 1, 1, 3, 0, 0, 0, 0, 0, 1, 0, 0, 0, 1, 0, 0, 1, 1, 0, 0, 1, 0, 2, 0, 0, 0, 1, 0, 0, 0, 0, 0, 1, 0, 0, 0, 0, 0, 0, 1, 1, 0, 1, 1, 0, 1, 0, 0, 0] which from the observation we can see that Joe Pesci': 2 has worked together with both of them.

The comparison for both of them is not well. Since there is hardly one actor that has worked with both of them, and rest have just appeared one time.

It concludes that the both supporting cast have not worked together due to some reasons yet they are highly successful in their career for ranking in top 500 movies of all time.