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SUBJECT NAME :-

Data Science

PROJECT NAME:-

Music Recommendation System





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INTRODUCTION

Recommendation systems are becoming really important in today's extremely busy world. People are always short on time with the huge amounts of tasks they need to finish it in the limited 24 hours. Therefore, the recommendation systems are important as they help them make the right choices, without having to expend their thinking resources. The purpose of a recommendation system basically is to search for content that would be interesting to an individual. Moreover, it involves a number of factors to create personalized lists of useful and interesting content specific to each user/individual.



OBJECTIVES

- The Music Recommendation System provides a mechanism to help users categorize users with similar interests. Basically the purpose of a recommendation system is to search for material that will be interesting to a person. Moreover, it involves a number of factors to create personalized lists of useful and interesting content specific to each user/individual.

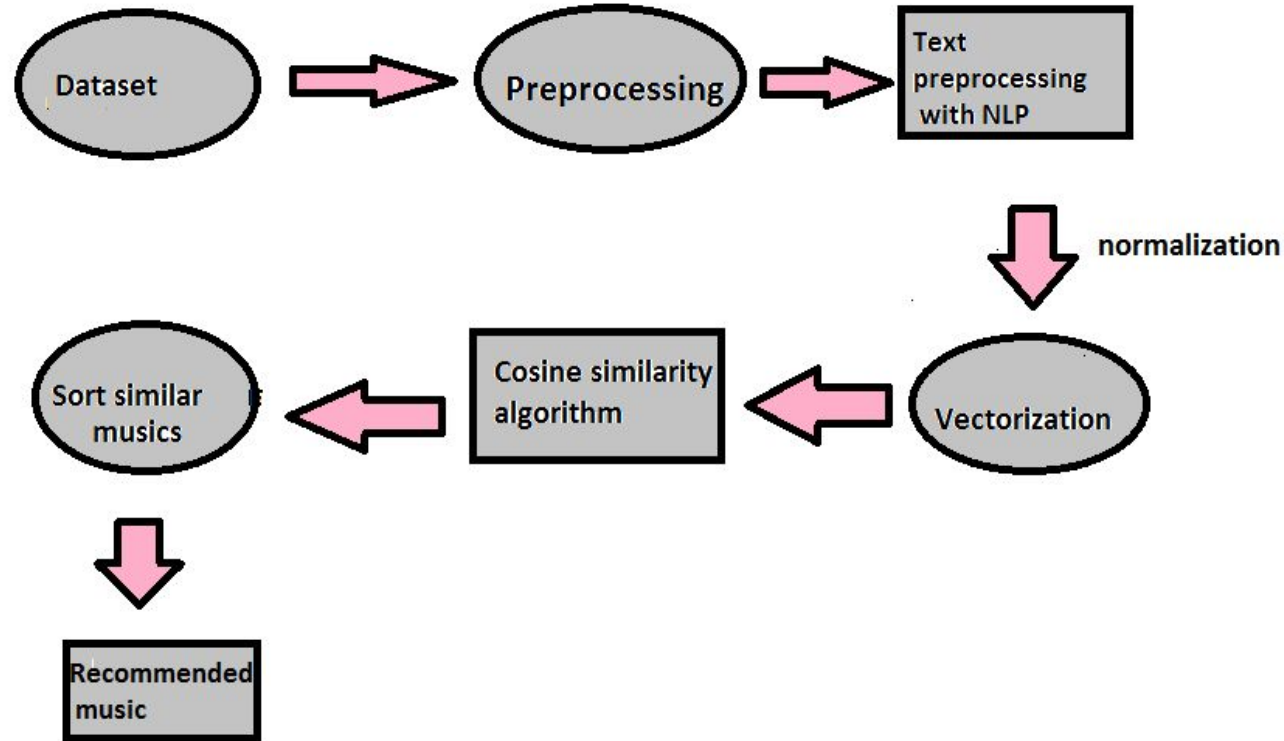


PROBLEM STATEMENT

For building a recommender system, we face several different problems. Currently there are a lot of recommender systems based on the user information, so what should we do if the website has not gotten enough users. After that, we will solve the representation of a music, which is how a system can understand a music. That is the precondition for comparing similarity between two music. Music features such as genre, actor and director is a way that can categorize music.

- What kind of music features can be used for the recommender system.
- How to calculate the similarity between two music.

PROPOSED SYSTEM



SYSTEM ARCHITECTURE



Dataset

We have downloaded dataset from Kaggle.com with 5000 music data.

Data pre-processing

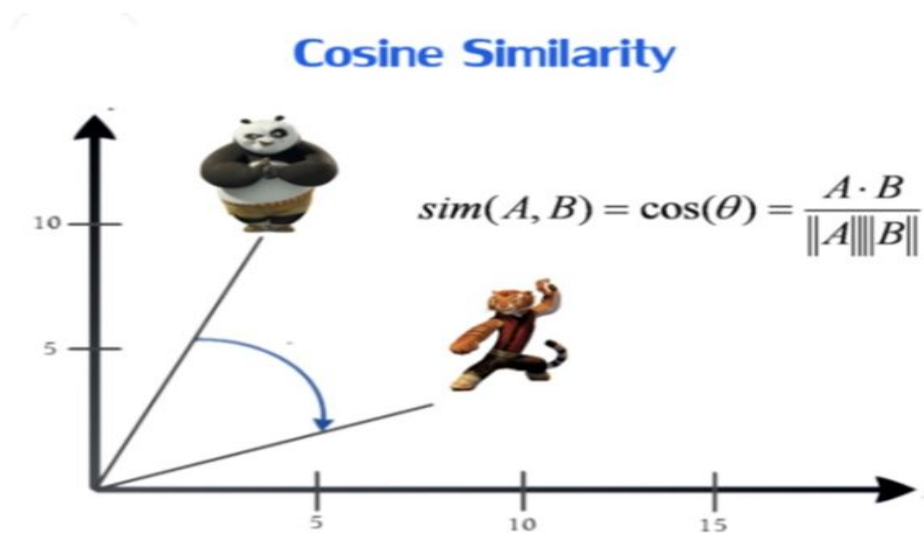
Data Loading, Data Viewing, Data Cleaning

NLP algorithm

In Machine Learning Natural language processing is a field in which computers understand, analyze, and derive meaning from the provided language or human language in a smart and useful and effective way. By using NLP, developers can learn, organize and structure knowledge which will help them to perform tasks such as automatic summarization , translation, named entity recognition, relationship extraction, speech recognition, and topic segmentation and many their task can be performed using NLP.

Cosine Similarity

Cosine similarity is a metric used to measure how similar two items are. Mathematically, it measures the cosine of the angle between two vectors projected in a multi-dimensional space. The output value ranges from 0–1. 0 means no similarity, whereas 1 means that both the items are 100% similar.





CONCLUSION

The model has recommended vary similar music. From my “domain knowledge”, We can see some similarities mainly based on directors, actor’s and other plot’s. We trained and tested the recommendation system. The accuracy rate is 80%. The movie recommender system provides very good prediction rate and is more reliable then the recommendation system based on collaborative filtering algorithm.