



MUSIC RECOMMENDER SYSTEM

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INTRODUCTION

- ▶ With the rise of digital content distribution, we have access to a huge music collection. With millions of songs to choose from, we sometimes feel overwhelmed. Thus, an efficient music recommender system is necessary in the interest of both music service providers and customers.
- ▶ Our music recommender system is large-scale and personalized. We learn from users' listening history and features of songs and predict songs that a user would like to listen to.
- ▶ Some popular recommendation system –
 - Product Recommendations (**amazon**)
 - Movie/TV show Recommendations (**NETFLIX**)
 - Friend Recommendations(**facebook**)

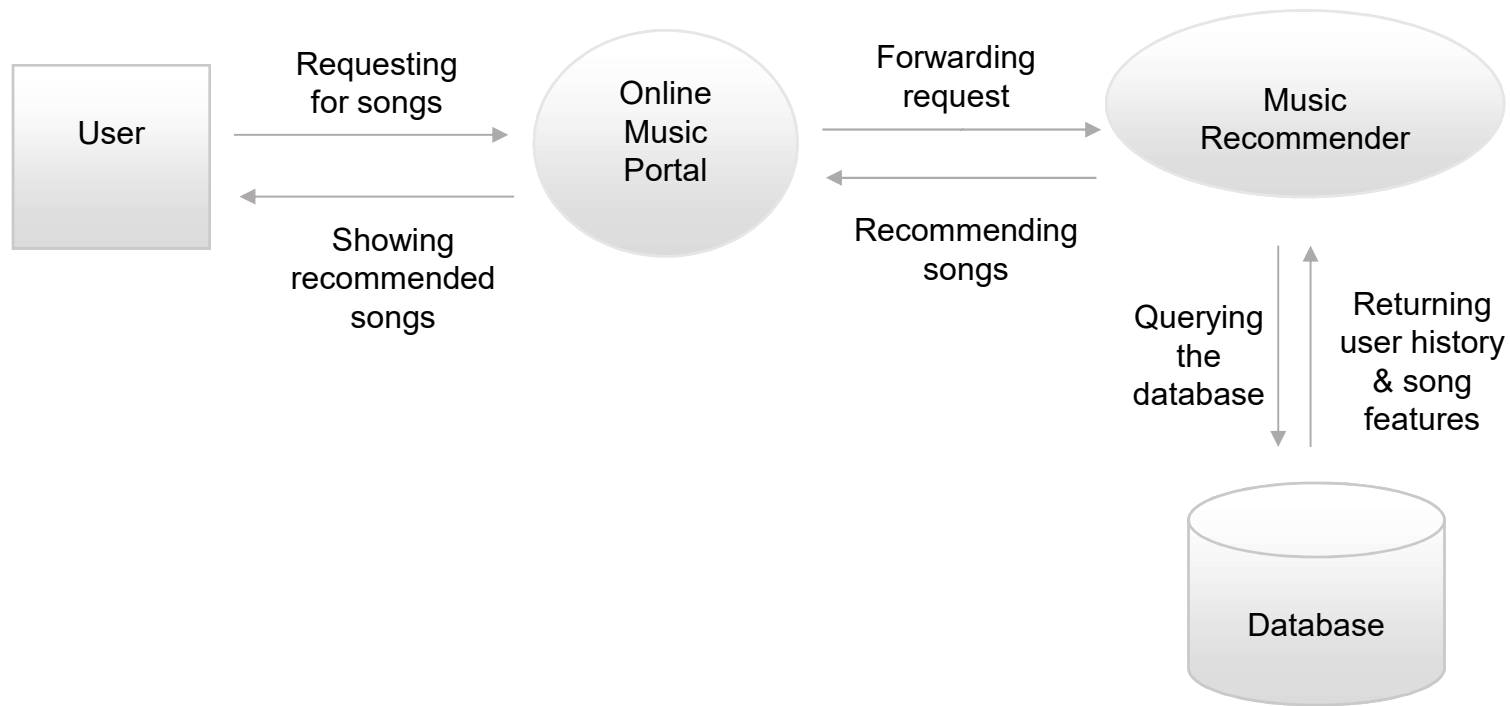
FEATURES

- Provide Personalize Recommendation
- Increase the level of Users Satisfaction
- Understand the User's Tastes
- Allow Users to Play, Favourite ,
Download the songs
- Allow Users to Create Playlist
- Search the Songs in Effective and
Responsive Manner

TECHNOLOGY STACK

- **Back End** :- Python 
- **Framework** :- Django 
- **Data Base** :- SQLite 
- **Front End** :- HTML , Javascript , Bootstrap 
- **Packages** :-
 - Numpy
 - Scipy
 - Pandas
 - Matplotlib
 - Sklearn

SYSTEM DESIGN

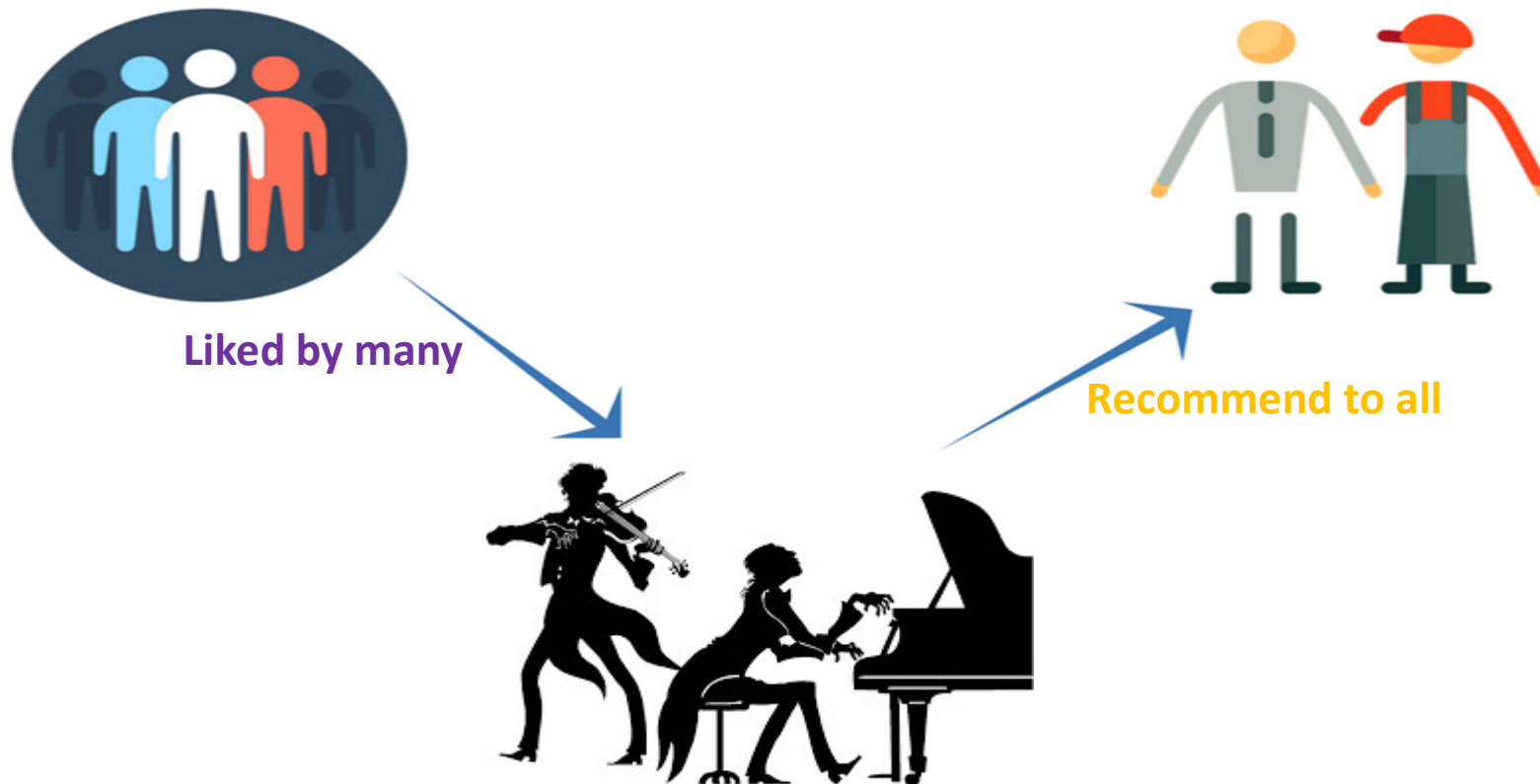


PROJECT APPROACH

We propose following algorithms for our task -

1. Popularity based

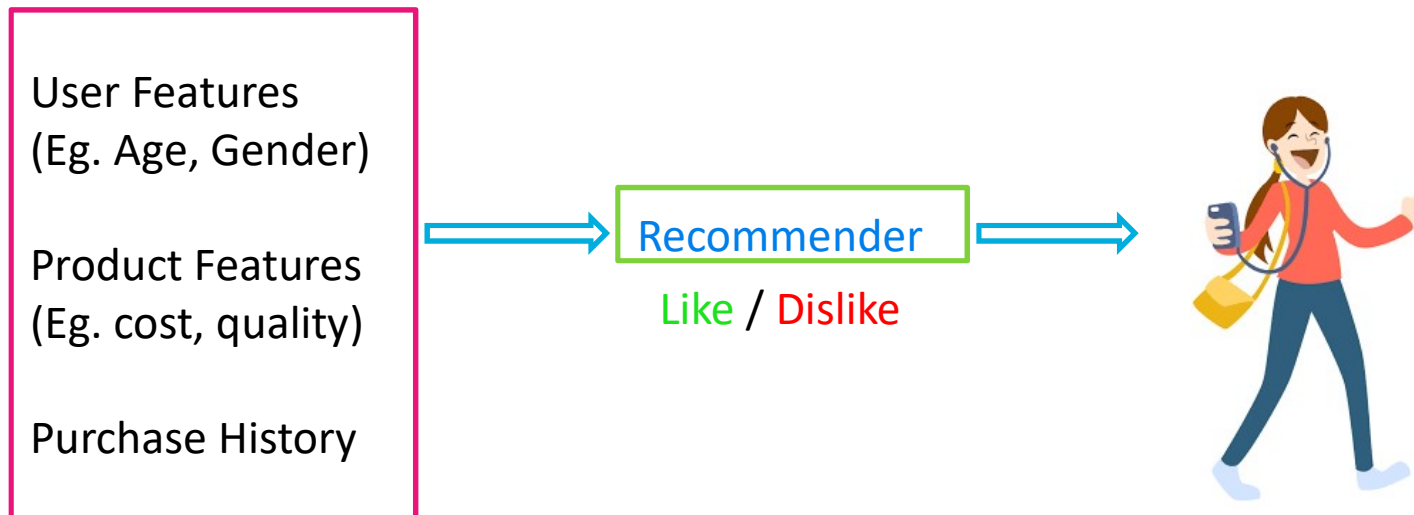
The most trivial recommendation algorithm is to simply present each song in descending order of its popularity skipping those songs already consumed by the user, regardless of the user's taste profile.



PROJECT APPROACH

2. Content Based Filtering

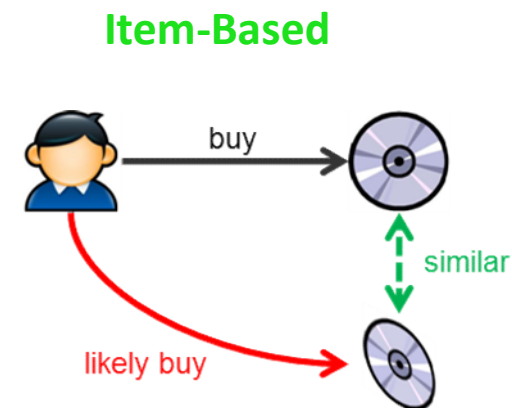
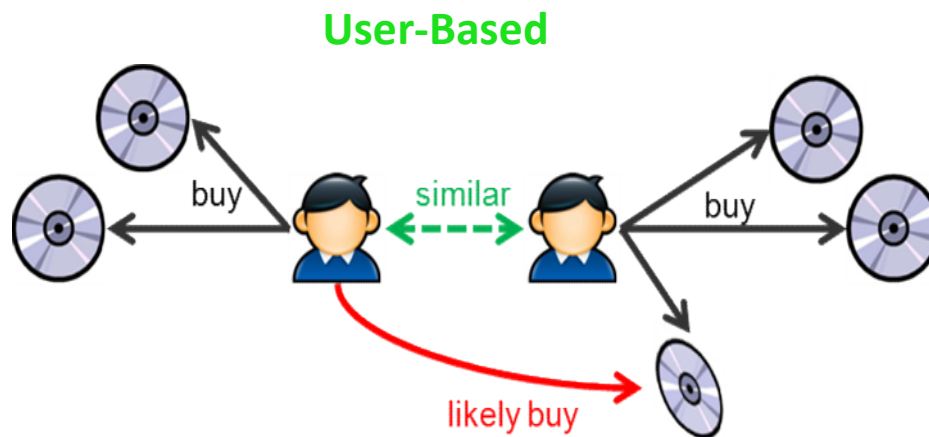
Use features of both products as well as users in order to predict whether a user will like a product or not.



PROJECT APPROACH

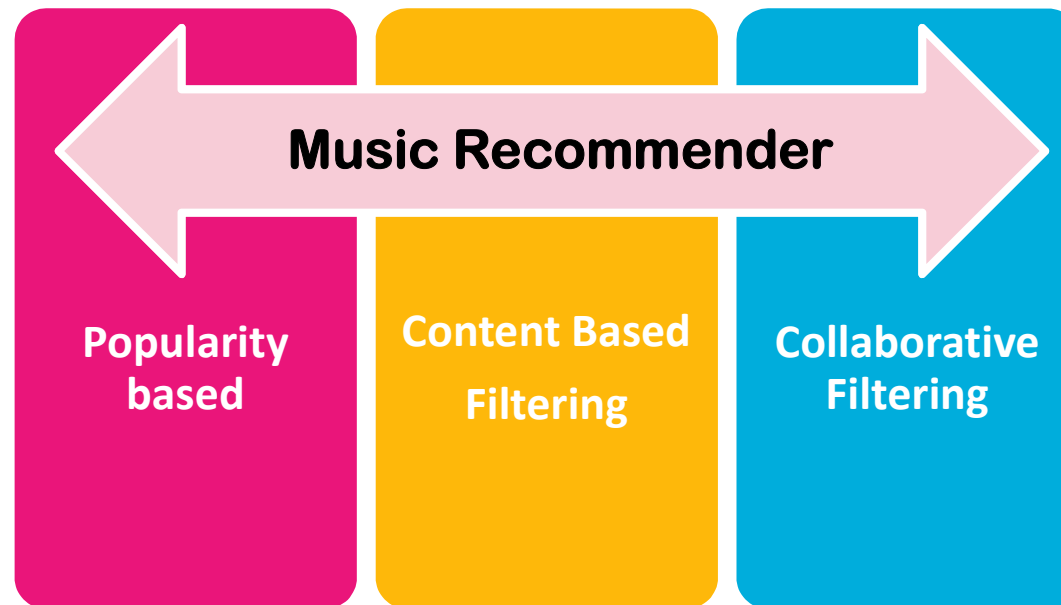
3. Collaborative Filtering

It can be either user-based or item-based. In user-based recommendation, users who listen to the same songs in the past tend to have similar interests and will probably listen to the same songs in future. In the item-based recommendation strategy, songs that are often listened by the same user tend to be similar and are more likely to be listened together in future by some other user.



PRACTICAL IMPLEMENTATION

Each model have certain **Advantages** and **Disadvantages** , so in order to recommend more accurate results we need to build a system which make use of all the models.



Thank you