**PPT Script**

**Slide 1:** Hello Everyone!!!

This is Pushpak Maind from group no. 10.

Today our group will be giving a presentation on,

“Music Recommendation System”.

Our project is being mentored by Prof. Naveen Vaswani and

My group members are Tanmay Kulkarni, Rahul Patil and Vishal Shirke.

**Slide 2:** As we all know Nowadays, lot of music industries like Amazon music, gaana.com using recommender systems and the old fashioned way of selling music has changed. But the problem is we have many songs to choose from, so it will be easy to choose a song if we classify the songs on the basis of different genres, artists locations, age groups, languages but this method doesn’t work properly. Instead of this the main goal should be to classify these set of songs in accordance to the taste of the user. Also, music service providers need an efficient way to manage songs, so that their customers can discover music.

**Slide 3:** Today, Commercial music libraries easily exceeds15 million songs, which vastly exceeds the listening capability of any single person. With millions of songs to choose from, people sometimes feel overwhelmed. Also, Most of the systems recommend on the same genre/artist because of which listener won't be able to access more genre/artist. Hence there is lack of variety of songs. So, the Solution to all these problems is to use large scale and personalized Music Recommender System which learns from users listening history and features of songs and predicts what users would like to listen.

**Slide 4:** Based on the problem statement we would like to propose a music recommendation system which will be better at predicting songs and easy to use. It will consider a song as an input while giving a list of song suggestions as an output according to the users preference.

We will use machine learning techniques to predict the users behavior and save their time.

Let’s understand what is a recommendation system.

**Slide 5:** Its one of the many filtering systems which are used to predict users behavior on rating or preference. There are many ways to approach this system like a content based system which studies the content to predict the user, a collaborative approach which studies the user rather than the item and a combination approach of these two known as hybrid model.

**Slide 6:** Now, talking about Collaborative filtering, esply User based collaborative filtering which is going to be implemented in this project. It actually means a specific User will be recommended the songs on the basis of ratings given to that song by the other users which have similar interest with that of the user. The next one is Item based collaborative filtering, here similarity between songs is check on basis of user ratings & then appropriate recommendations are done. The User-based collaborative filtering has greater diversity & improving ability.

**Slide 7:** Here’s the Working flow diagram of the project where in first phase the EDA techniques will be performed on raw dataset to spot anomalies, understand patterns & various correlations within the data & summarizing their main characteristics. Then in data pre-processing data gets transformed, or encoded, to bring it to such a state that now the machine can easily parse it. After the data is cleaned then it’ll be trained w.r.t collaborative filtering technique & model will be tested. Based on this when end user will give any input as song he’ll get respective recommendations on exclusive webpage.

**Slide 8:**  Now, talking about the datasets a collection of instances is a datasets and when working with machine learning methods we typically need a few datasets for different purposes. Machine learning methods learn from examples. It is important to have a good grasp of input data and the various terminology used when describing data. For this project, we have used million songs dataset from kaggle which has data of 1 million users and 1/2 million songs. This dataset contains two files.

1. Song data: which has song\_id, title, release, artist name & year

2. Triplet: which has user\_id, song\_id and listen count

**Slide 9:** So, this was about the dataset. Now, the hardware requirements for this project are computer or laptop with minimum Intel i3 6th gen with 4gb ram and software requirements are python, Html, css, numpy, pandas, jupyter notebooks ,etc.

**Slide 10:** Then these are the reference links and papers used for this project.