

MAD - 2 PROJECT REPORT ON MUSIC RECOMMENDATION SYSTEM

Name : YASHWANT RAJ

Roll No. : 21F1001547

Email : 21f1001547@ds.study.iitm.ac.in

I am a diploma level student in IITM BS Online Degree Program.

Title :

Music Recommendation System

Introduction :

The Music Recommendation System website is a platform that allows users to interact with a diverse library of music, create playlists, and receive personalized music recommendations. The project utilizes Flask for backend operations and Vue.js for the frontend. The user can also become a creator on the platform and upload songs. Also there is an admin to monitor the platform.

System Overview :

The application features a backend built with Flask, handling API requests, user session management, and interactions with a SQLite database. The frontend, developed with Vue.js, provides an interactive interface where users can explore music, manage playlists, and access recommended tracks based on their preferences.

Data Models :

User Model : To store the details of Users on the platform.

Song Model : To store the details of songs uploaded on the platform including Lyrics, release date, rating and genre.

Album Model : To store the details of albums uploaded by the creator on the platform.

Creator Model : To store the details of creators on the platform including the songs, albums and the number of albums uploaded by the creator.

Playlist Model : To store the details of playlists created by the user

Admin Model : An Admin model to store the credentials of the admin

System Architecture :

The system follows a client-server architecture. The client side is built using Vue.js providing an interactive user interface for the admin and users. On the server side, Flask is used to handle API requests and interactions with the database.

Functionality :

Admin : The admin has access to the Administrator Dashboard. The admin can look for songs uploaded on the platform, their genres and the List of Creators present on the platform. Also the admin can remove any creator or song from the platform.

Creator : The Creator can upload any song on the platform by entering the details of the song such as lyrics, genre, release date and also create an album. The creator can see the average rating of all songs uploaded by it.

User : Any user after registration can log-in into the platform and search for songs on the platform, rate the songs and also create playlists. The user can check its profile to see the list of playlists and songs within those playlists.

User Interfaces :

Admin Dashboard : Provides admin with access to a list of creators and songs on the platform. The admin also has the option to remove them.

Creator Dashboard : The creators on the platform can see the total songs uploaded and the average rating of all songs uploaded by them.

Core Functionalities for Users:

User Authentication : Secure login and registration processes.

Music Upload and Management : Allows creators to upload and manage songs, including details like title, artist name, and lyrics.

Playlist Management : Users can create, modify, and delete playlists, adding or removing songs as needed.

Music Searching : Implements search functionality to find songs by name, genre, or artist.

Project Presentation Video Link :

<https://drive.google.com/file/d/1CleZloPBBHEAvERYxxPYWxnCDudGKm-m/view?usp=sharing>