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SYNOPSIS

**ON**

**Ravel : The Music Buddy**

Submitted By: Submitted To:

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**Title of the Project:**

Ravel : The Music Buddy

**Objective:**

The objective of the project is to create a user-friendly interface that allows users to easily discover, organize, and play their favorite music tracks. Implementing a robust recommendation system that suggests music based on user preferences and listening history.

**Scope:** The scope of our project encompasses the design and development of a comprehensive Music Player. This system will cover the following aspects:

* **Music Library:** The application will offer a diverse and extensive music catalog, including songs, albums, and playlists from various genres and artists.
* **Audio Streaming:** "Ravel" will support high-quality audio streaming, allowing users to enjoy their favorite music with customizable audio settings.
* **User Friendly Environment:** It will provide User Friendly Environment with an easy access to music.
* **Original Content Creation:** The project will not include the creation of original music content or licensing agreements with artists. Instead, it will rely on existing music

**Methodology:**

* **Frontend Development:** Our frontend will be created using HTML and CSS for building the user interface.
* **Backend Development:** We will employ JavaScript and Python for the backend development.
* **Database Management:** We will use MongoDB as the database management system for data storage and retrieval.
* **API:** It will provide other functionalities like searching music tracks, etc.

**Proposed System:** The proposed music system will provide a user-friendly web-based interface that allows users to Create a user profile and allows users to search and (create playlists of their favorite songs and) add their favorite artists, genres, and songs to tailor recommendations. The system will Build a comprehensive music database with a vast collection of songs, albums, and artists and will also categorize music by genre, mood, and other relevant metadata. It will also include features for sharing of playlists to encourage social interactions and provides good-quality audio streaming for users.

**Features:**

* **User Registration:** Allow users to create accounts and profiles.
* **Collaborative Filtering:** Recommend music based on the preferences and behaviour of users with similar tastes.
* **Content-Based Filtering**: Suggest music based on the characteristics of songs, such as genre, tempo, and lyrics.
* **Hybrid Approaches:** Combine collaborative and content-based filtering for more accurate recommendations.
* **Search Functionality**: Enable users to search for specific songs, albums, or artists.
* **Share and Collaborate:** Enable sharing of playlists and collaborative playlist creation.
* **Free of cost:** Free for use.
* **Security and Privacy:** Implement strong security measures to protect user data

**Implementation Plan:**

* **Project Initiation and Planning:** 1 Days
* **Frontend Development:** 3 Days
* **Backend Development:** 3 Days
* **Database Design and Setup:** 2 Days
* **Implementation of API and other Functionalities :** 5 Days
* **Final Testing and Debugging:** 2 Days

**Team Members:**

Abhishek Sagar, Aditya Singh, Aman Kumar and Sikha Chauhan

**Resources Required:**

* **Frontend Development:** HTML,CSS,JavaScript and relevant frameworks.
* **Backend Development:** Python ,JavaScript and necessary libraries.
* **Database Management:** MongoDB for data storage and retrieval.
* **API Development:** Tools and frameworks for managing APIs.

**References:**

Spotify for developers, GitHub .

**Expected Outcomes:**

* **Music Library:** The application will offer a diverse and extensive music catalog, including songs, albums, and playlists from various genres and artists.
* **High-Quality Audio Streaming:** "Ravel" will support high-quality audio streaming, allowing users to enjoy their favorite music with customizable audio settings.
* **User Friendly Environment:** It will provide User Friendly Environment with an easy access to music.

**Project Supervisor:**

**Mr Ankit Arora**

**Conclusion:**

"Ravel: The Music Buddy" is set to create a user-friendly music platform with a vast music library, personalized recommendations, and robust features, aiming to enhance user engagement and satisfaction. The project's success will be gauged by its ability to deliver an exceptional music experience while maintaining data security and legal compliance.