Project Proposal :

Project Title : TrackTraverse

Project Summary :

Leveraging the Kaggle dataset "Top 10000 Songs on Spotify 1960-Now," spanning diverse music genres, we introduce **TrackTraverse**. This database application is tailored for users to store, add, update, delete, and efficiently manage playlists. Our focal point is the creation of a user-friendly interface facilitating data organization, playlist creation, and music data management. A notable feature is the customizable playlist, enabling users to curate according to their preferences. TrackTraverse understands the importance of CRUD operations and streamlines this process which allows the user to spend less time on administrative tasks and more time enjoying the music.

Description :

Objectives:

What we want to do.

The objective is to develop a database application that efficiently organizes a collection of music tracks and allows users to create, modify, and manage playlists.

What we want to solve:

- Visually appealing music management system
- Disorganization of Music Collections
- Streamlining CRUD Operations for playlist creation

Usefulness:

It offers a user-friendly interface to organize songs, create playlists, and easily manage music data. This application aims to streamline the music management process and enhance the user experience.

Are there any similar or equivalent databases out here?

The following applications have similar features :

- iTunes
- Spotify
- Youtube Music
- MediaMonkey

If so, what are they, and how are yours different?

While various music databases and streaming platforms are available, this application distinguishes itself by providing a simple and customizable solution for users who want more control over their music organization.

1. Simplicity and Customization:

Our application provides a simple and customizable solution for users who want more control over their music organization, offering a more user-centric approach.

2. Open Source Collaboration:

Depending on the development model chosen, our application could be open source, encouraging collaboration from the community.

Targeted User Group :

- The database application targets music enthusiasts, individual users with substantial music collections, and small-scale music streaming services.
- It is designed for those who prefer a personalized and organized approach to managing their music library and playlists.

Dataset:

We will use the dataset of Top 10000 Songs on Spotify 1960-Now. It is a comprehensive collection featuring 10,000 of the most popular songs spanning the period from 1960 to the present day. The dataset is meticulously curated based on rankings from the ARIA (Australian et al. Association) and Billboard charts, providing a diverse representation of songs that have achieved significant commercial success and cultural impact. In managing the dataset, the integrity will be ensured by carefully reviewing each attribute. The **Null records in the attribute column will be removed** to streamline our analysis, we will concentrate on the **top 200 records**. This focused approach aims to improve the precision and relevance of the extracted information. We will not be doing any preprocessing on the Image URL as of now and try to build the application.

The dataset was created by Joakim Arvidsson and was updated seven months ago under CC0: Public Domain License.

Out of the current attributes, **the attributes we are interested** in include :

Attributes	**Description**
Track Name	Name of the track

Artist Name	Name of the artist
Album Name	Name of the album
Album Artist Name	Name of the artist of the album
Release Date	Date the track was release
Album Image URL	URL which contains the album image
Track Duration	Duration of the track
Explicit	If the track has explicit content
Added At	Where the track was added
Artist Genres	Genres of the Artists
Labels	Label under which the artist/track is under contract
Copyrights	Copyrights information
Ratings	Converted to a 5-point scale from popularity

3/20/24 Revision

Differentiation: While existing platforms like iTunes, Spotify, YouTube Music, and SiriusXM offer playlist CRUD functionalities, TrackTraverse distinguishes itself through its focus on simplicity, customization, and potential open-source collaboration. These aspects offer users a more personalized and user-centric approach to music organization, setting TrackTraverse apart from other platforms.

Dataset Preprocessing: To ensure data quality and usability, we plan to preprocess the dataset by handling missing values, removing null records, and normalizing data. Additionally, we'll address attributes like image URLs, ensuring they're appropriately managed within the dataset for efficient usage in the application.