AUTHOR

Name: C.Adithyaa
Roll No: 23f1002266
Student's Email: 23f1002266@ds.study.iitm.ac.in

I am C.Adithyaa, from Chennai,Tamil Nadu .I am 19 years old and pursuing BS in Data Science and Programming from IIT Madras. I am currently doing my Btech in Mechanical Engineering at IIT Bhubaneswar.

DESCRIPTION

In this Music Streaming Application we are supposed to create a data driven Flask web app with SQLite as a database for the song ,album, playlist and user management, where user can search for their songs,album,lyrics and create a route interface for creator, in order to create, update and delete songs and albums

TECHNOLOGIES USED

SQLite database: to store the data

Flask : It is a lightweight web development platform. It has libraries that enable build web Applications

SQLALchemy : It is a python library, ORM SQL toolkit that acts as the interface with SQLLite database

Python : Programming language to use the libraries to the build the application

Html : To build the pages

Css : to style the pages

Bootstrap : to style the pages easily

DB SCHEMA DESIGN

For this web application I have made 6 entities**:**
Album, Playlist, Playlist_song, Songs, Users, Rating

Table Name	Column Name	Description
Users	user_id	Text,Primary key
	password	Text
	user_name	Text
	user_type	Controller generated text (user,creator,admin)

Table Name	Column Name	Description
Album	Album_id	System generated primary key
	Album_name	Text,Unique

Table Name	Column Name	Description
Songs	song_id	System generated primary key
	song_name	Text,Unique
	lyrics	Text
	album_id	Foreign key with reference to Album
	artist	Text
	genre	Text

Table Name	Column Name	Description
Playlist	playlist_id	System generated primary key
	playlist_name	Text,Unique
	user_id	Foreign key with reference to Users

Table Name	Column Name	Description
Playlist_song	playlist_song_id	System generated primary key
	playlist_id	Foreign key with reference to Playlist
	song_id	Foreign key with reference to Songs

Table Name	Column Name	Description
Rating	rating_id	System generated primary key
	song_id	Foreign key with reference to Songs
	user_id	Foreign key with reference to Users
	rating	Integer

ARCHITECTURE AND FEATURES

Project Root
   Code
      application
               configure.py- (configure the sql database directory)
               controller.py-(contains the flask route code
               database.py-(initialization of database code
                models.py - (declare the model of the database)
      instance
           Database.sqlite3- (database is stored)
     static- (image and css files are stored here)
     templates- (html files are stored here)
     app.py

Video Link

https://drive.google.com/file/d/1iVkQjC9730PSpwI8v8qkP9kM6x2Y9udQ/view?usp=drive_link