Music Streaming Application - ZoroMusic

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Description:

The objective of this project is to build a music streaming application using the frameworks and concepts learnt during Modern App Development - 1 course. The name of the project is ZoroMusic inspired by Spotify and took references from JIMSHAPEDCODING from freecodecamp and flask documentation.

Technologies Used:

The main technologies used in this application are **Flask, Flask-Sqlalchemy, SQLite** and **Python. Flask_Sqlalchemy** was chosen to interact with the underlying **SQLite** database which makes the application portable. **Jinja2** was used for templating the user interface.

DB Schema Design:

This application uses 8 tables with proper integrity constraints in an SQLite database named ZoroMusic.db which is present in the instance folder to keep track and manage various forms of data.
The full schema is present in the root folder of the application named as **Schema.pdf**.

Architecture and features:

The entry point is the app.py file which is present in the root directory named FinalProject. Run the app.py file in any local IDE to see how the application works. Before running make sure you have all the modules present in the requirement.txt are installed.

Inside this root directory a package is created in the form of a directory named ZoroMusic. This package consists of all the necessary files for the application to run. Inside this package, all the templates or the html files used for rendering the user interface are stored in the templates folder. There are four more python files inside the ZoroMusic package, they are routes.py where all the routes are present, models.py where the database models are created, forms.py where all the forms are present as Classes which are imported and directly used and finally __init__.py which is used to the mark the directory as a python package. It initializes the package when it is imported. All the songs are stored in the songs folder which is present in the static folder inside the ZoroMusic package.
Since, the maximum size of the file to be uploaded is less than 10MB, less number of songs are used and the same song clip is attached for multiple songs present in the songs table.
This application has a separate login for users and admin. The users can be a general user or a creator. It has both login and signup options. The users can listen to the songs and read the

lyrics and rate them as well. They have control over the playlists and all the albums are visible in the My profile page in the app.

Here, we're assumed that there is only one admin. The credentials for Admin are as follows

Username: admin   and   **Password:** password

The admin can play the songs and delete the songs if the songs are breaching the company's policy. He can flag the creators, see the statistics and also see the deleted songs. The ratings and statistics are often dynamically changed.