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Description

A music streaming app that allows users to listen to songs, create and manage playlists, and rate songs. The app supports multiple user roles, including normal users, creators, and admins.

Technologies Used

Flask: Utilized as the core backend framework for routing and request handling.
Flask-SQLAlchemy: Implemented for efficient database management, provides structured data storage.
HTML/CSS: Utilized for the frontend development and user interface.
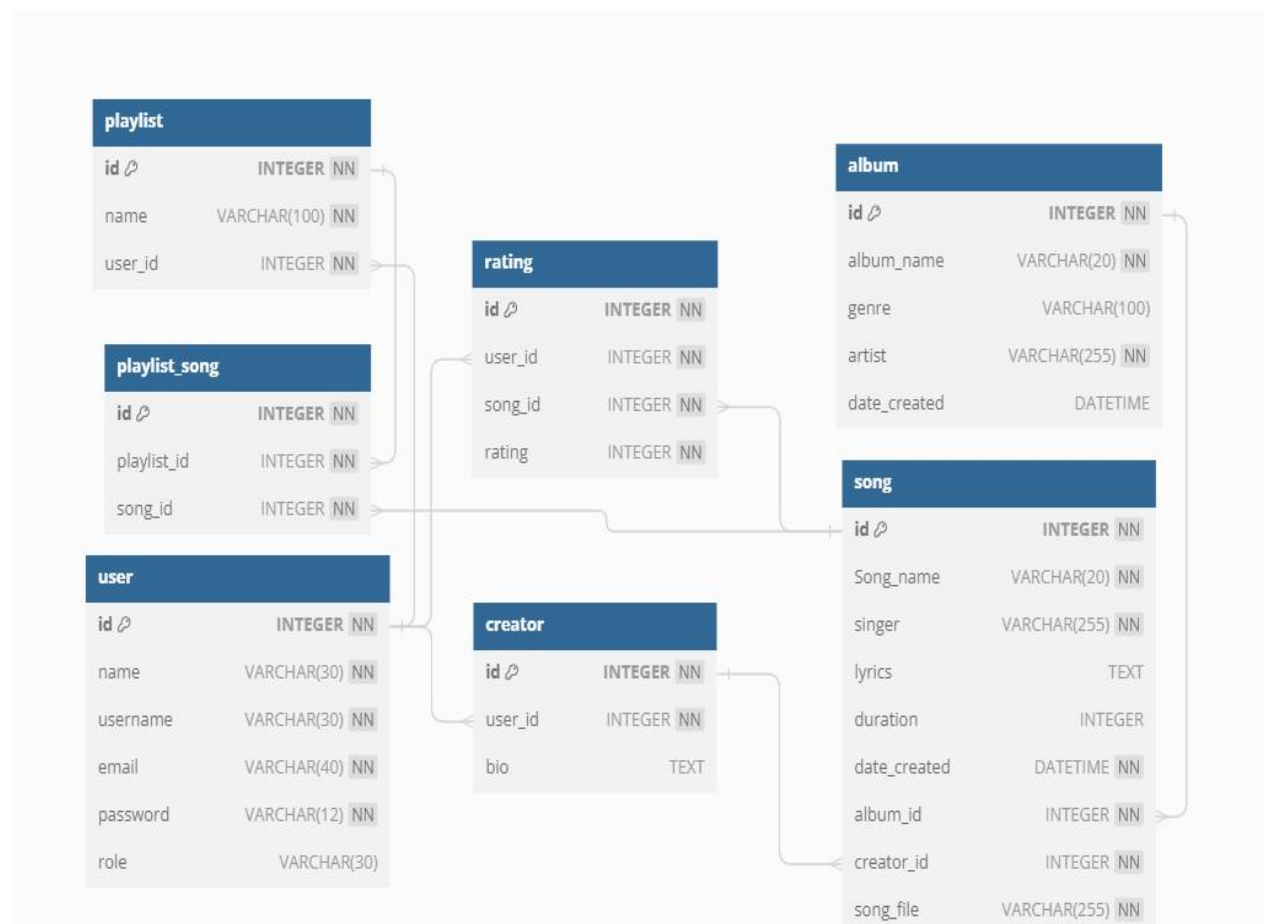**Jinja2:** Integrated for template rendering, enabling the dynamic generation of HTML content.
Bootstrap: Integrated to enhance the application's visual design.
SQLite: Selected as the database management system, ensuring data storage and retrieval.
Flask-Login: Implemented to manage user authentication and session handling.
Flask-RESTful: Implemented to create a set of RESTful APIs.

DB Schema Design

API Design

The project includes APIs for managing songs and albums. It allows creating, updating, and deleting records using RESTful endpoints.

Song API:

/api/song: CRUD operations for songs.

/api/song/<int:song_id>: Get, update, or delete song details.

Album API:

/api/album: CRUD operations for albums.

/api/album/<int:album_id>: Get, update, or delete album details.

Architecture and Features

app.py: Contains the main application logic and routes.

templates/: HTML templates for rendering pages.

static/: CSS and music files.

models.py: Defines the database models.

api.py: Defines the RESTful APIs.

Features:

User Registration and Login: Users can create accounts, log in, and enjoy a personalized experience.

Song and Album Management: Users can browse a vast collection of songs and albums, view details, and stream their favorite music.

Playlist Creation: Users can create and manage playlists to organize their favorite songs.

User Profiles: User profiles provide information about their playlists, ratings, and their own profile details.

Song Rating: Users can rate songs, and the app calculates the average rating for each creator.

Search Functionality: Search for songs, albums, and artists by name.

Creator Profiles: Creators have profiles showcasing their bio, songs, and ratings.

Admin Panel: Admins have access to advanced features like user management, song management, and more.

Video

https://drive.google.com/file/d/11G-VkA6pt2Jlw9TTV4QYflqrcc9HxLT4/view?usp=sharing