

Report

Modern Application Development 2 (MAD2) - Project

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Author

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Description

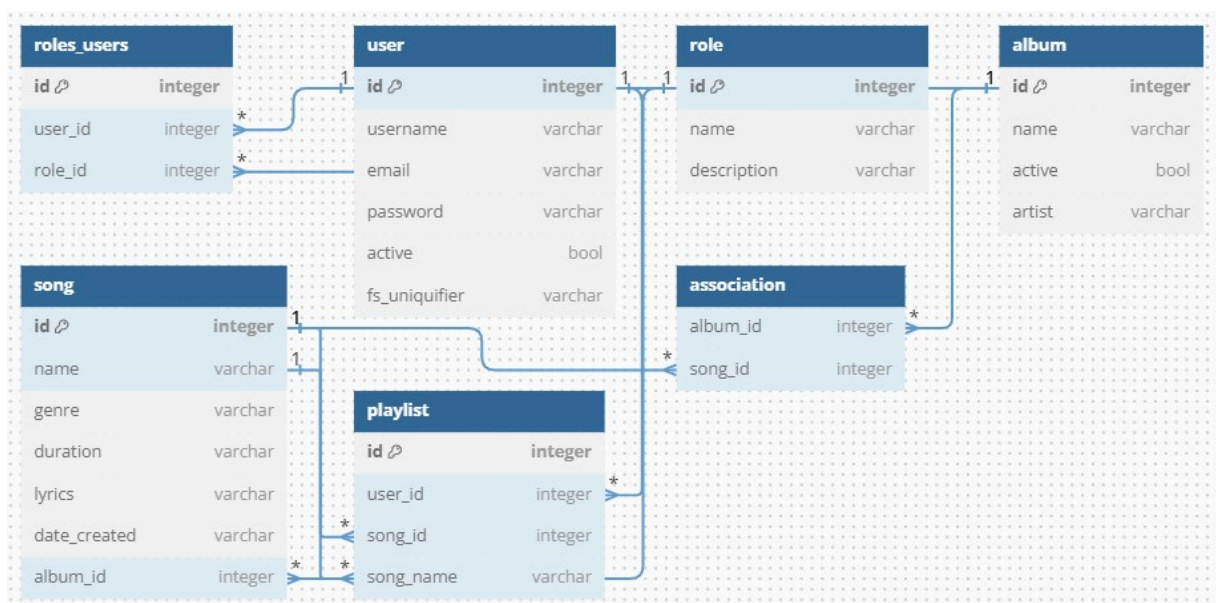
In this project, we have to create a Music Streaming Application. There must be an Admin managing the app data. There should be Users who can play Songs, read Lyrics, create Playlists and there should be Creators who can upload their own Songs.

Technologies Used

In this app, technologies like Flask, Flask-SQLAlchemy, VueJS, Redis, Celery, Werkzeug, SQLite have been used. These technologies are used to develop a web application for users to manage and interact with a music database. Flask framework is employed for web development. VueJS is used for User Interfaces. Redis is used for caching. Celery and Redis are used for batch jobs. This tech stack enables the creation of a dynamic and feature-rich web app.

DB Scheme Design

These design choices aim for normalisation, data integrity, and flexibility. ForeignKey relationships enforce referential integrity, and the use of primary and foreign keys helps establish relationships between tables. The nullable fields allow for optional data, while default values provide sensible defaults when applicable.



API Design

In this app, Flask RESTful API has been used. This API manages operations for the music streaming application. Methods like GET, POST, PUT and DELETE are available for Albums and Songs and Playlists.

Architecture and Features

In this app, the model.py file consists of different models like Album, Song, Association, User, Role, RoleUsers, Playlist. The app.py file contains all the creation of the app and controllers. The api.py file consists of all the API endpoints. Further, token based authentication has been implemented for Admin, User, and Creator. The Admin can add, edit, or delete an Album, and the Creator can add Songs into different Albums created by Admin and can also edit and delete the song details. A Creator can also add Albums but it has to be approved by the Admin. A Creator can access the application only if he is authorised by the Admin. Users can view the Songs in all the Albums, and create their own Playlist. Admin can send daily reminder emails to Users and monthly report emails to creators.

Video

22F3000983_MAD2PROJ.mp4

https://drive.google.com/file/d/1hBt2284EsH9o5DNBYZ1oahATkxHBYaQG/view?usp=drive_link