



NEXT GEN EMPLOYABILITY PROGRAM

Creating a future-ready workforce

Team Members

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CAPSTONE PROJECT SHOWCASE

Project Title

Music Web Application using Django Framework

Abstract | Problem Statement | Project Overview | Proposed Solution |
Technology Used | Modelling & Results | Conclusion



Abstract

This project entails the creation of a music platform using Django. The platform will empower users to register accounts, curate their music collections, and enjoy seamless music streaming. Prominent features encompass user verification, an adaptable user interface, encrypted file storage, and an interactive music player interface. Moreover, the platform will leverage Django's integrated ORM for efficient database administration and RESTful APIs to seamlessly amalgamate with frontend technologies.

Problem Statement

Creation of Music Web Application using Django Framework

Project Overview

This project endeavors to build a contemporary and intuitive music streaming platform utilizing Django. The platform will empower users to establish customized accounts, organize their music libraries, and indulge in uninterrupted streaming of their preferred tunes. Noteworthy features encompass user verification, adaptable design catering to diverse devices, encrypted file storage, and an instinctive music player interface. By harnessing Django's ORM capabilities and RESTful APIs, our objective is to furnish a dependable platform that elevates the music listening journey for all users.

Proposed Solution

Our endeavor entails crafting a music streaming platform utilizing Django, integrating vital functionalities such as user authentication, music upload and administration, and a dynamic music player. We'll deploy secure file storage mechanisms for user uploads and ensure cross-device compatibility through responsive design techniques. Employing Django's ORM capabilities will streamline database management, while the adoption of RESTful APIs will foster smooth communication with the frontend. Our objective is to establish a seamless and gratifying music streaming experience, prioritizing ease of use and practicality.

Technology Used

Front-end



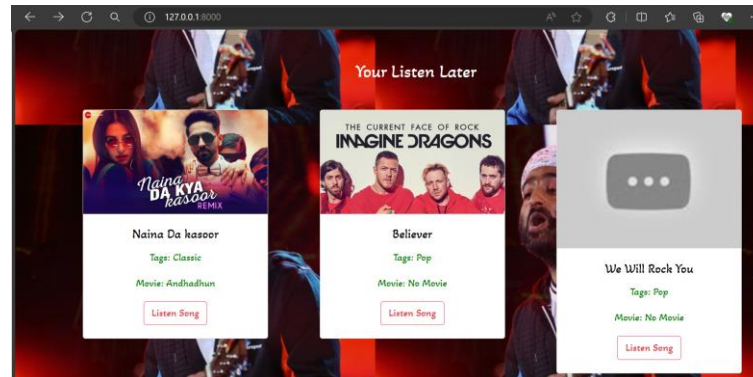
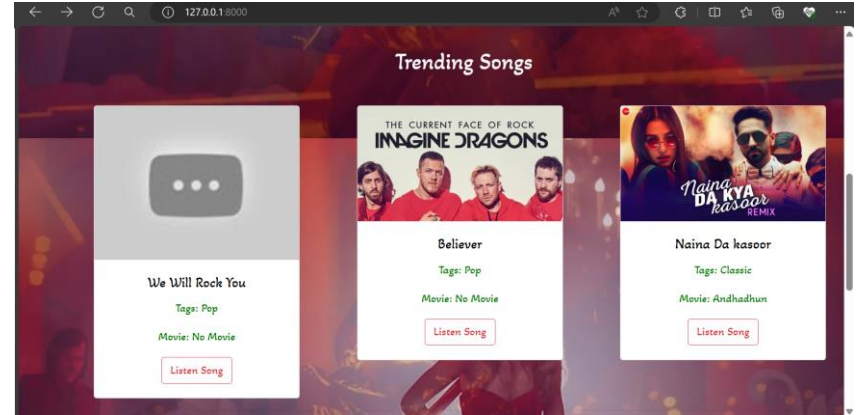
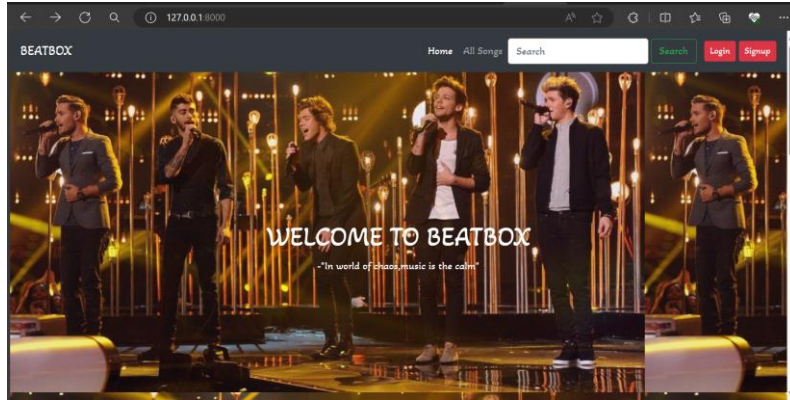
Back-end



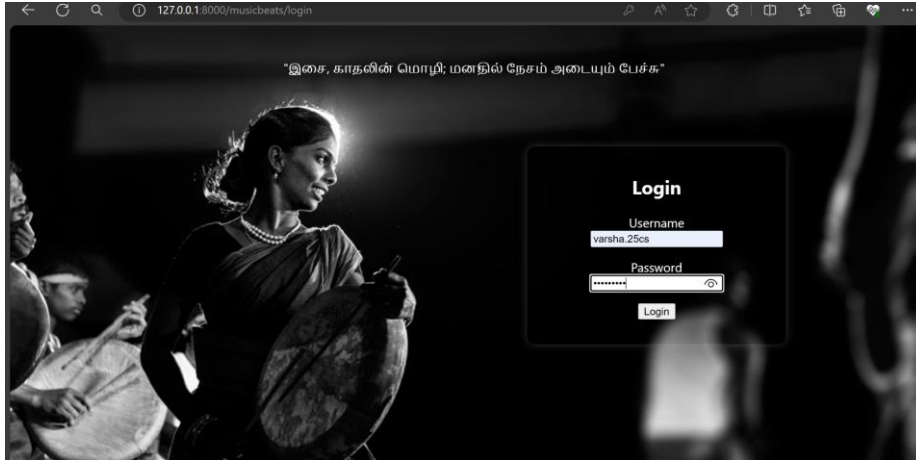
Modelling & Results

The project will encompass formulating a Django data schema to depict users, music compositions, and playlists. Through Django's ORM, we'll ensure adept data storage and retrieval mechanisms. User validation will be orchestrated leveraging Django's inherent authentication framework. On the frontend, we'll craft responsive templates employing HTML, CSS, and JavaScript to facilitate seamless user engagement. Music streaming functionality will be realized through Django's file management features alongside a tailor-made music player interface.

Homepage



Login and Sign Up



The screenshot shows a web browser window with the address bar displaying "127.0.0.1:8000/musicbeats/login". The page features a dark background with a woman in a sari playing a mridangam. A quote at the top reads: "இசை, காதலின் மொழி; மனதில் நேசம் அடையும் பேச்சு". A central white box contains the "Login" form with fields for "Username" (containing "varsha.25cs") and "Password" (masked with dots), and a "Login" button.

127.0.0.1:8000/musicbeats/login

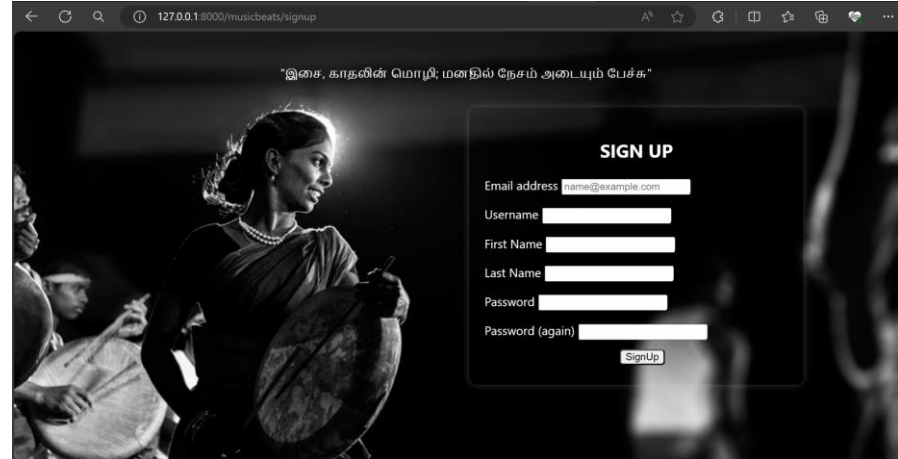
"இசை, காதலின் மொழி; மனதில் நேசம் அடையும் பேச்சு"

Login

Username
varsha.25cs

Password

Login



The screenshot shows a web browser window with the address bar displaying "127.0.0.1:8000/musicbeats/signup". The page features the same dark background and woman playing a mridangam. A quote at the top reads: "இசை, காதலின் மொழி; மனதில் நேசம் அடையும் பேச்சு". A central white box contains the "SIGN UP" form with fields for "Email address" (containing "name@example.com"), "Username", "First Name", "Last Name", "Password", and "Password (again)", and a "SignUp" button.

127.0.0.1:8000/musicbeats/signup

"இசை, காதலின் மொழி; மனதில் நேசம் அடையும் பேச்சு"

SIGN UP

Email address
name@example.com

Username

First Name

Last Name

Password

Password (again)


SignUp

History

← ↻ 🔍 ⓘ 127.0.0.1:8000/musicbeats/history

BEATBOX Home All Songs Welcome varsha ▾

History



Slut

Tags: #eratour,#albums


Movie: era tour

Loosu pennae loosu pennae

loosu pennae

Loosu paiyan unmelathan

loosa suthuraan

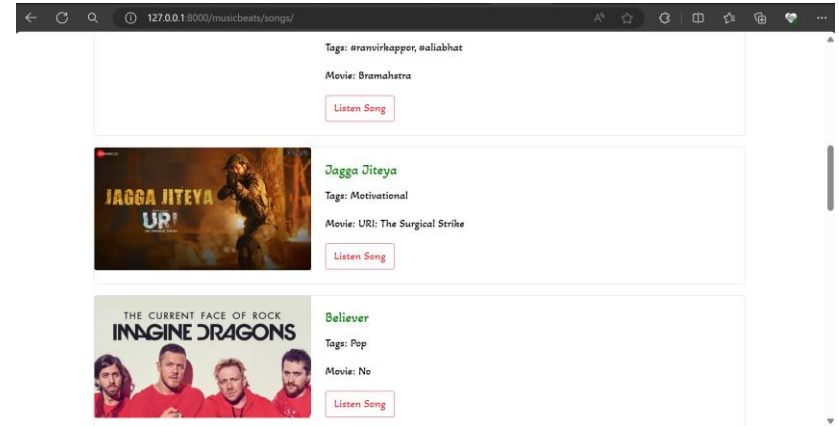
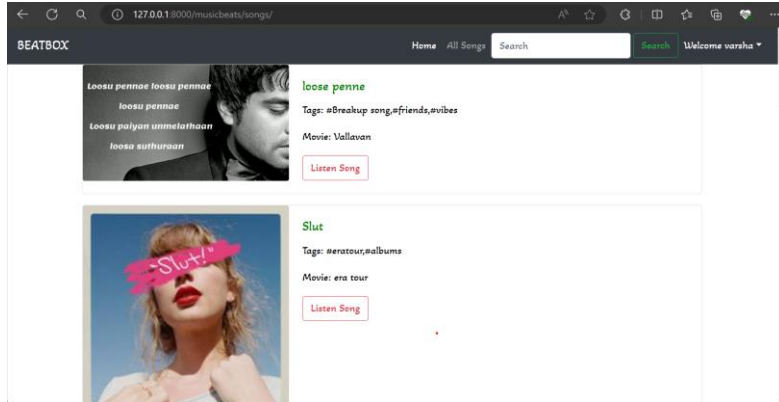


loose penne

Tags: #Breakup song,#friends,#vibes

Movie: Vallavan


All Songs



Listen Later

BEATBOX[Home](#)[All Songs](#)[Search](#)[Welcome varsha](#) ▾

Listen Later



We Will Rock You

Tags: Pop

Movie: No Movie

[Listen Song](#)

Playlist Upload

BEATBOX [Home](#) [All Songs](#) [Search](#) [Welcome varsha](#) ▾

Upload Your Music

Your Music Name

Singer Name

Tags :

Image Link: (Associated With Your Music)

Movie Name

Credit

Future Enhancements:

Moving forward, potential enhancements could include integrating personalized recommendations derived from user listening patterns, enabling social sharing of playlists, and integrating external music APIs for broader content access. Additionally, supporting offline playback and enriching the user interface with interactive elements could enhance user experience. Continuous efforts towards performance optimization and scalability enhancements will be crucial to accommodate a growing user base.

Conclusion

To summarize, the Django-powered music streaming application offers a scalable and comprehensive platform tailored for music enthusiasts. Utilizing Django's robust framework, I've crafted a responsive and secure solution that prioritizes user satisfaction. With ongoing development and planned future enhancements, we are dedicated to evolving the application to adapt to the evolving landscape of music streaming, ensuring a seamless and delightful experience for our users.

Thank You!