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 involves developing a music web application using the Django framework to address the challenges faced by music enthusiasts in discovering new music and engaging with their favorite tunes. Key features of the application include a vast music library, personalized recommendations, intuitive playlist management, and social interaction capabilities. By leveraging advanced algorithms and modern web technologies, our platform aims to provide users with a seamless and immersive music discovery experience.

Source :

Problem Statement

In today's fast-paced world, music enthusiasts often struggle to discover new music tailored to their tastes and preferences. Existing music streaming platforms may lack personalized recommendations and social interaction features, leading to a fragmented and unsatisfactory user experience. Additionally, managing playlists and sharing music with friends can be cumbersome and inefficient. There is a need for a comprehensive music web application that addresses these pain points and provides a seamless and immersive music discovery experience for users.

Source :

Project Overview

This project aims to develop a music web application using the Django framework to address the mentioned challenges faced by music enthusiasts. The application will offer a wide range of features, including a vast music library, personalized recommendations, playlist management tools, and social interaction capabilities. By leveraging advanced algorithms and modern web technologies, we intend to create a user-friendly platform that caters to the diverse needs of music lovers.

Source :

Proposed Solution

- The proposed solution involves developing a music web application with the following key features:

Comprehensive Music Library: The application will offer a vast collection of songs spanning various genres, artists, and albums, providing users with access to a diverse range of music.

Personalized Recommendations: Advanced recommendation algorithms will analyze user preferences, listening history, and trends to suggest tailored music recommendations, helping users discover new artists and genres.

Source :

Proposed Solution

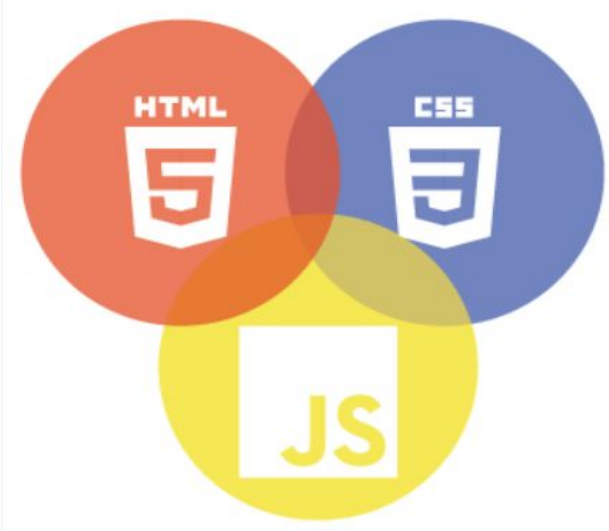
Playlist Management: Users will be able to create custom playlists, add or remove songs, and organize their music library according to their preferences. Playlist management tools will enable seamless organization and customization of playlists.

Responsive User Interface: The user interface will be designed with responsive design principles to ensure optimal performance across devices and screen sizes. Intuitive navigation and seamless transitions will enhance the overall user experience.

Source :

Technology Used

Front-end



Back-end

Source :

Modelling & Results

We begin by introducing the modeling approach adopted for the project, providing insights into the techniques and methodologies utilized. Following this, we describe the datasets employed for modeling, highlighting the features and target variables within the data. We also discuss any preprocessing or data cleaning steps undertaken to prepare the data for analysis.

Next, we delve into the development of the models, elucidating their architectures and components. We provide explanations of the chosen models, including any pertinent hyperparameters and tuning strategies applied.

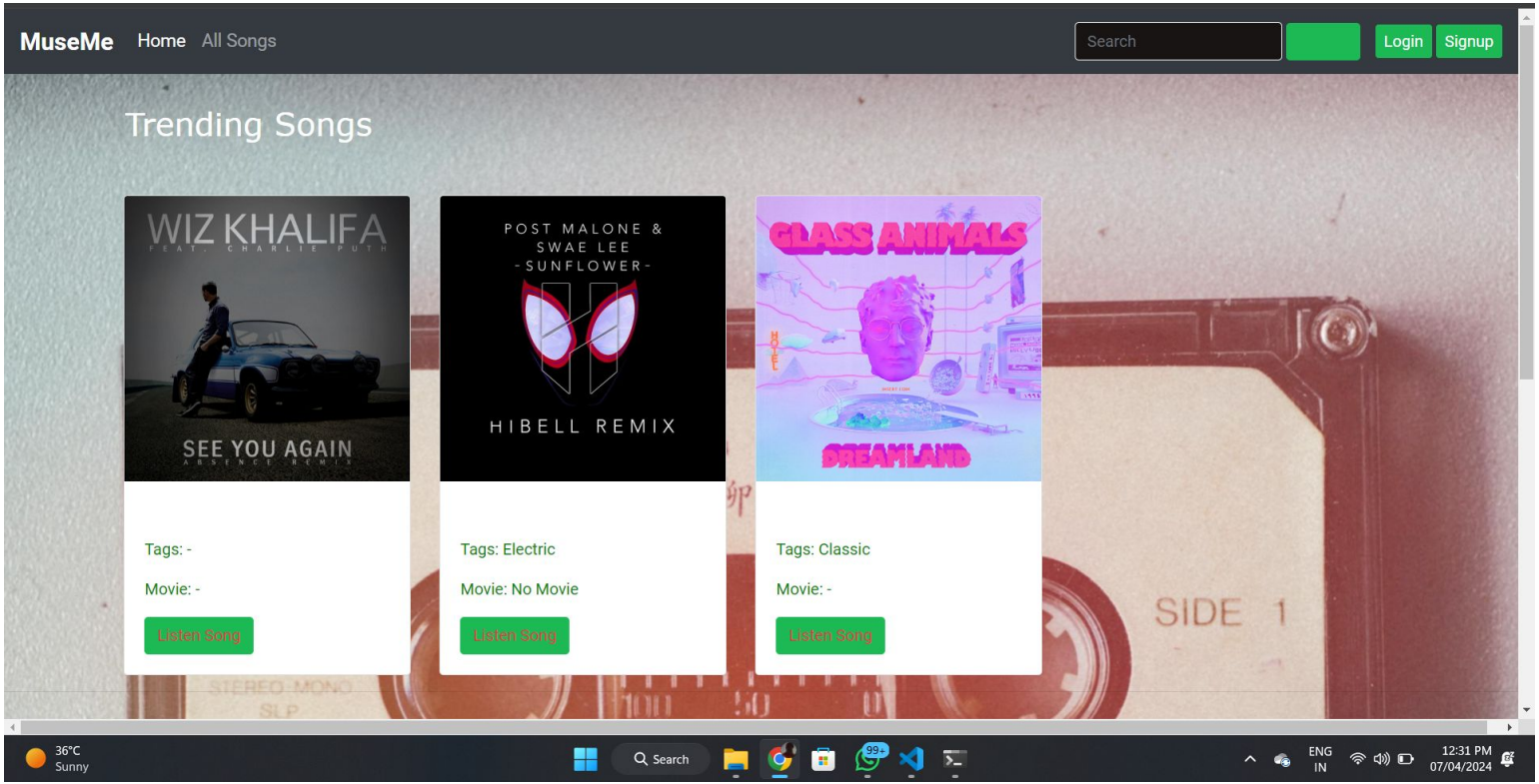
We then proceed to discuss the training and evaluation procedures used to assess model performance. We outline the training/validation splits, batch sizes, and evaluation metrics utilized. We present the results obtained from the training/validation/testing phases, accompanied by relevant visualizations and tables.

Subsequently, we analyze the results, interpreting the model performance metrics and identifying any trends or patterns observed. We compare different models or variations of the same model to ascertain their effectiveness.

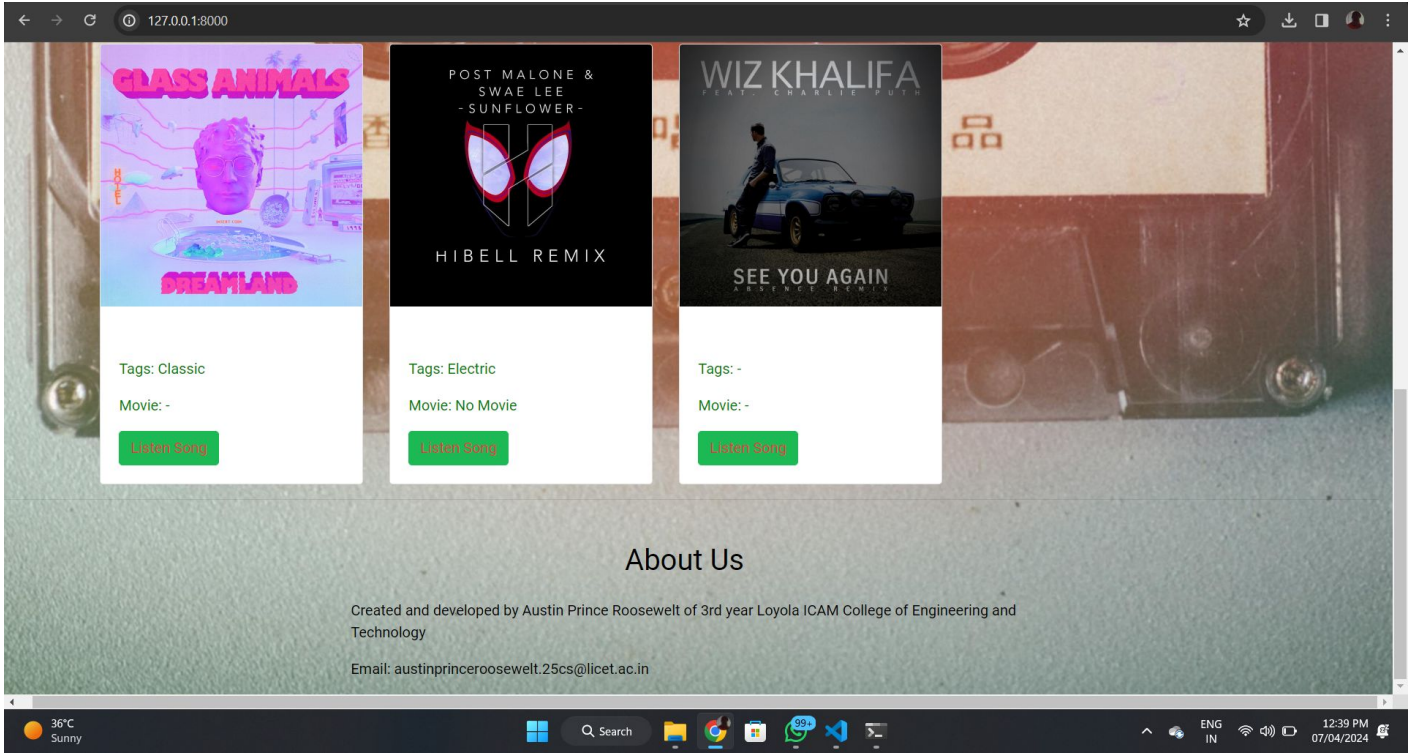
Source :

edunet foundation

Homepage



About-Us-Page



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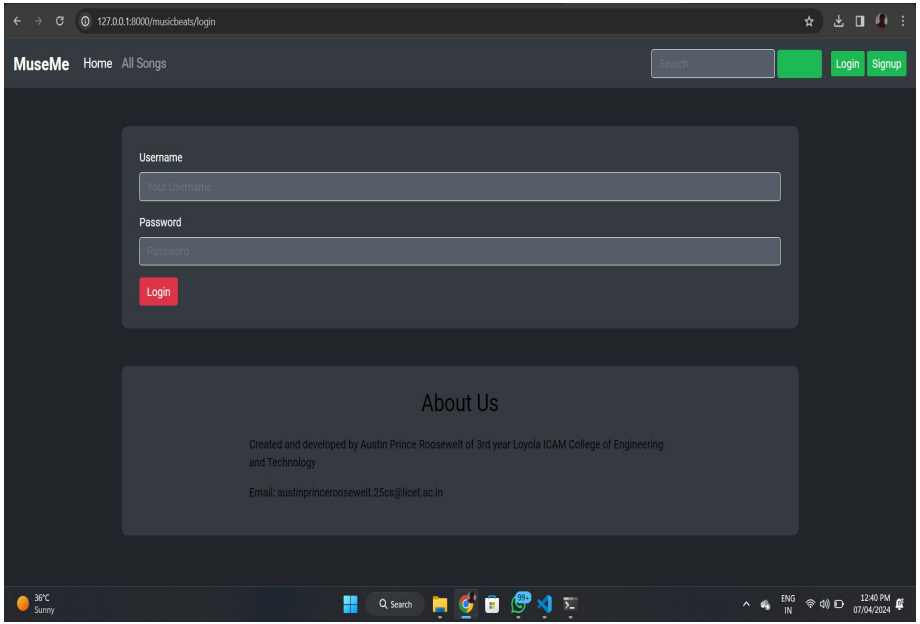
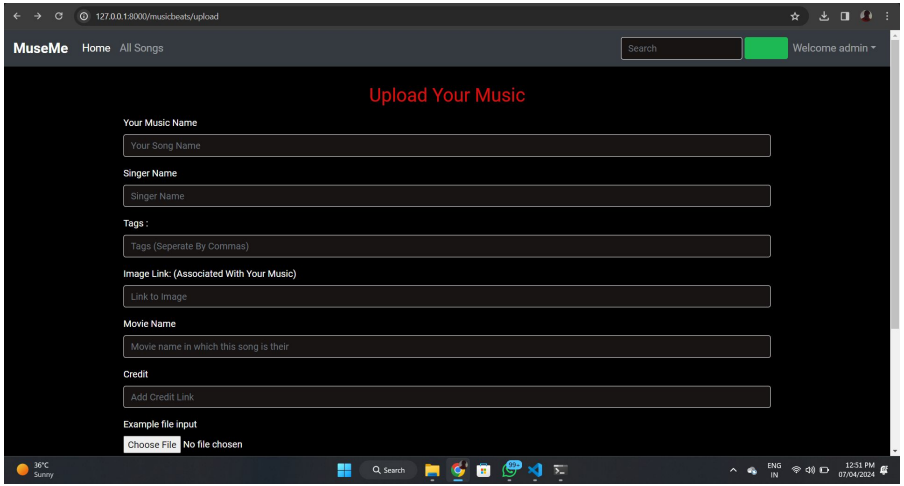
Service-Page





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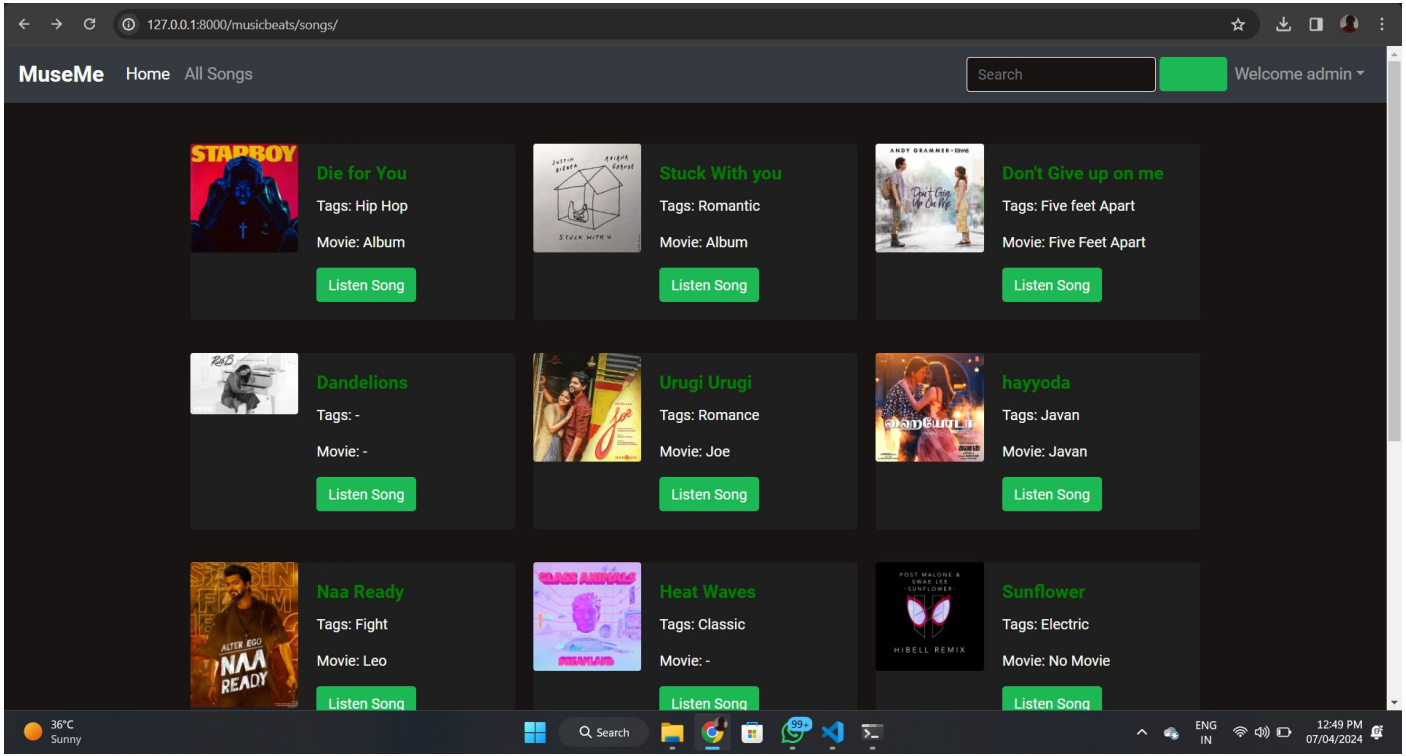
Departments-Page



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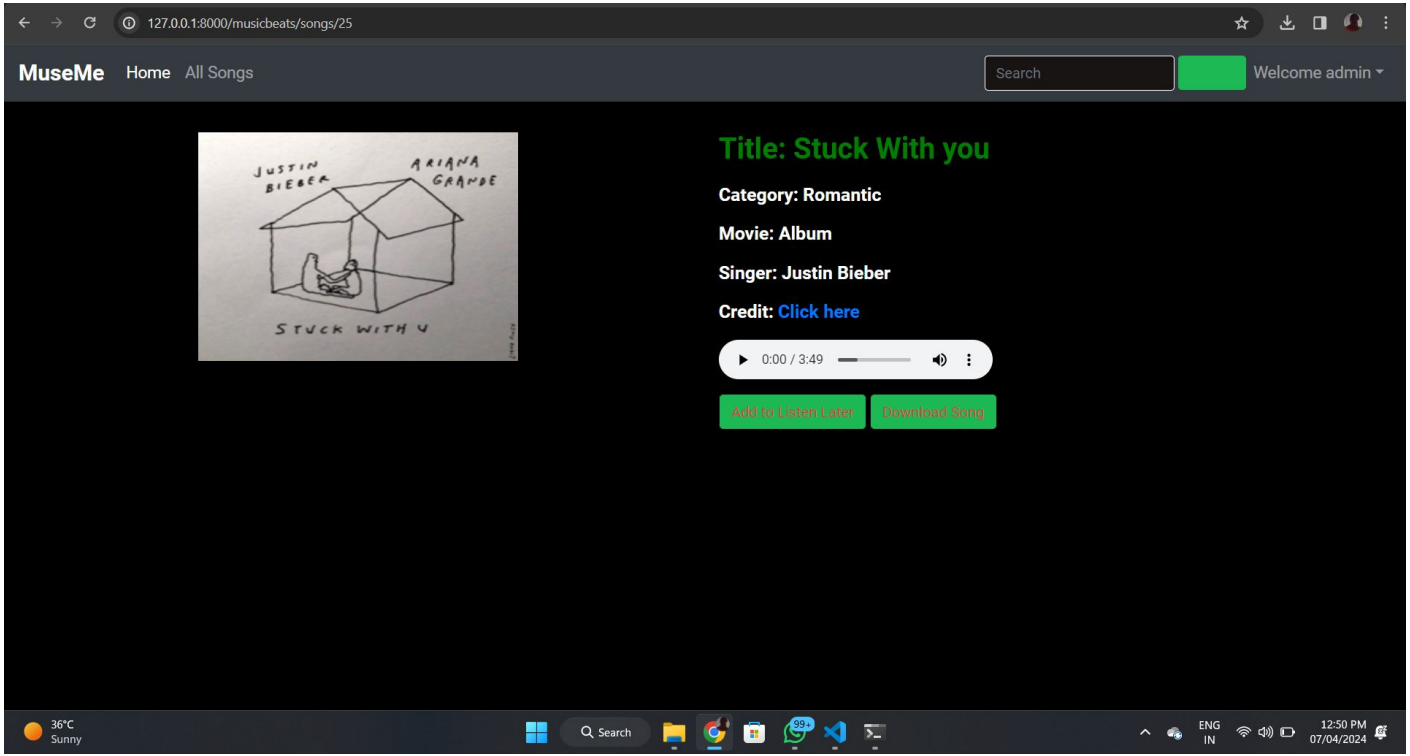
Blog-Page



Future Enhancements:

Better Recommendations: Improve suggestions for songs and artists based on what users enjoy listening to. This could include looking at what their friends like too.

More Social Features: Add more ways for users to interact, like private messaging and group chats. This could help users connect with others who share their taste in music.

Connect with More Music Sources: Allow users to access music from more places, like Spotify or Apple Music. This would give them access to a wider range of songs and artists.

Make it Look and Feel Better: Update the design to make it more modern and easier to use, especially on phones and tablets.

Smarter Playlists: Create playlists automatically based on what users like and what they're doing. For example, if it's sunny outside, suggest some upbeat songs.

Listen Without Wi-Fi: Let users download songs and playlists so they can listen offline. This would be great for times when they don't have an internet connection, like on a plane or subway.

Get Users Involved: Encourage users to contribute their own playlists, reviews, and recommendations. This could help build a sense of community among users and make the app more engaging overall.

Conclusion

In conclusion, the development process of our music application utilizing the Django framework has been characterized by diligence and innovation. Through meticulous attention to detail and a commitment to user-centric design, we have cultivated an exceptional platform that redefines the music listening experience.

Moving forward, our dedication to continuous improvement remains unwavering. We are poised to further refine and elevate our application, with a strategic focus on enhancing user engagement and fostering a vibrant community of music enthusiasts.

As we embark on the next phase of our journey, we express our sincere gratitude to all stakeholders who have contributed to our success thus far. Together, we will continue to push the boundaries of technological innovation and deliver unparalleled value to our users.

Source :

edunet foundation

Thank You!