TICKET BOOKING APPLICATION

AUTHOR

Name : TUMATI BHARATH
Roll No : 21f2000201
Email ID : 21f2000201@ds.study.iitm.ac.in
I am pursuing III B.Tech in Information Technology . I am very much interested in IITM BS Degree and enthusiastic to learn latest technologies.

PROJECT DESCRIPTION

This project is a platform for booking movie tickets for shows , where user can register as a new user and login to book movie tickets for shows after selection of venue. Admins are another type of users in this app who can Create, Read, Update and Delete the venues and shows.

Technologies Used

1. Flask - used for application code
2. Jinja2 templates and CSS for HTML generation and Styling
3. SQLite and SQLAlchemy for Data storage

Architecture and Features

1. The project is organized using the Model-View-Controller (MVC) architecture, with the controllers handling logic and routing, templates for display and models for interacting with a database.
2. Features implemented include:
   a. New user can register and login and Existing user login (using Username and Password).
   b. User login
      After creating the new user , user are capable of logging in and to book shows allocated in particular venues according to his/her interest.
3. Admin login
The Admin registration can be completed in SQL database. Admin registration link is not available in the application and should be manually searched for better security. In Admin dashboard the Admin can Create, Read (View), Update and Delete the shows and venues.

DB schema design

The database has server models/labels created. The database is designed to store the user information, venues, shows and booking details.

The database has several tables created using SQLAlchemy ORM. The schema includes:
User: stores the user's information like user_id, username, password.
Admin:stores the information of admin like admin_id, username and password.
Show: stores information about each show, including the show_id, show's name, rating, tags,ticket price and venue.
Venue: stores information about each venue, including the venue_id, venue name, capacity and shows(using relationship)
Booking: stores information about each booking made by a user, including the user ID, the show ID, the Venue ID, number of tickets booked and total price.

Challenges faced
The major challenge faced during the development of this project was implementing the user and admin login systems. It required careful planning and implementation to ensure that the login process was secure and robust.
Another challenge was designing the database schema to support the various features of the platform while maintaining data integrity.

Future improvements
The project can be improved by adding more features such as payment integration, rating the shows by users, user profiles, better security and social media sharing. Additionally, the user interface can be improved to enhance user experience.

Conclusions
In conclusion, this project was successful in creating a platform for booking tickets for shows. The MVC architecture and use of Flask, Jinja2, and SQLAlchemy made the development process efficient and effective. The project can be improved in the future by adding more features and improving the user interface.

Project Video Demonstration Link
1. **YouTube link:**
   https://youtu.be/rbMPrZ72GGE

2. **Google drive link:**
   https://drive.google.com/file/d/1ScWJI24A5BhzsNACpRTUudVyembYMAhM/view?usp=sharing