Moviestan

Ticket Booking Platform Design Report

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I'm highly motivated and results-driven with strong interpersonal and communication skills. Proven ability to handle multiple tasks and work effectively under pressure. Committed to personal and professional growth, seeking new challenges and opportunities

Description

The purpose of this report is to describe the models and overall system design for a ticket booking platform. Users of the portal may look for performances and locations and purchase tickets. It also enables the admin to manage concerts, venues and also to examine insights.

Technologies Used

The ticket booking platform is built using the Flask framework, with Bootstrap, Jinja2 for templating and CSS for styling. It uses SQLite database to store data about venues, shows, members and bookings,

DB Schema Design

There are four models used in the platform: Member, Venue, Show and Booking.

Venue Model

The Venue model represents the available venues . It has the following attributes:

ID: A unique identifier for the venue.

Name: The name of the venue.

Place: The location of the venue.

Capacity: Capacity i.e seats in that venue.

The primary key of the "Venue" table is defined as the "ID" column.

Show Model

The Show model represents the shows that users can book tickets for. It has the following attributes:

ID: A unique identifier for the show.

Name: The name of the show.

Rating: The rating of the show, based on user reviews.

Tags: The tags associated with the show (e.g., comedy, drama).

Ticket Price: The price of a ticket for the show.

Time: Date and time for the show.

Venue ID: The ID of the venue where the show is hosted.

Booked_tickets: Number of tickets booked for that particular show in a particular Venue.

The "Venue ID" is a foreign key that references the "id" column of the "Venue" table. The primary key of the "Show" table is defined as the "ID" column.

Member Model

The Member model represents the member who has an account in the moviestan. A member can be either an admin or a user. It has the following attributes:

First Name: First name of member.
Last Name: Last name of a member.
Email ID: Email Id of registered member.
Password: An unique password.
Designation: It can define whether a member is an admin or user. (admin or member)
Location: Prefer location of a member.

The primary key of the “Member” table is defined as the “email_ID” and it must be unique.

Booking Model

The Booking model represents the booking details of all the shows in the moviestan.It has the following attributes:

Booking ID: It is a unique id for each booking.

Show ID: ID of the show which has been booked.
User email: Email ID of the person who booked the tickets.
Price: Price of the tickets.
Number of tickets: Number of tickets booked for a show.

The primary key of the “Booking” table is defined as the “Booking_ID”. And Show ID is a foreign key.

Architecture and features

.Venue Management

Admins can manage venues by creating, editing, and deleting them. They can also view a list of all venues and search them by entering a venue name(partially/full) and also filter them by location.

Show Management

Admins can manage shows by creating, editing, and deleting them. They can view a list of all shows of a particular venue.

Search for Shows (Movies) / Venues (Theaters)

Users can search for shows (Movies) and venues (Theaters) based on their location preference and rating. The search function returns results based on the search criteria and displays them on a web page.

Booking Show Tickets

Users can book tickets for shows by selecting the show, the date, and the number of tickets they want to book. The system checks the availability of tickets and stops taking bookings in case of housefull.

API

The API for my app has four sub categories each namely: Venue, Show, Member and Booking with CRUD operation defined in each of them. In total, there are 8 routes which can perform all the CRUD operations for each sub API.

Conclusion

The ticket booking platform designed in this report provides a comprehensive solution for users to book tickets for shows and for admins to manage venues and shows. The platform's models - Venue and Show - allow for easy storage and management of data related to venues, shows, and bookings. The system design is user-friendly, and the search and booking functions are straightforward and intuitive. Overall, this ticket booking platform is an efficient and reliable solution for both users and admins.

Video Link:
https://drive.google.com/file/d/1oVGEQotqheSjWowuvm4VUn9hI1M2D9HT/view?usp=share_link