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Student Kit

Online Ticket Reservation System for Cinema Halls

Objective

To develop an automated online ticket reservation system for cinema halls, enabling users to book tickets, select seats, and receive email confirmations. The system ensures real-time availability and operational efficiency for cinema hall operators.

Requirements Specification (RS) :-

Sr No.	Requirement	Essential/Desirable	Description	Remarks
RS1	User Registration and Login	Essential	Allow users to register and log in securely.	Includes social media login (optional).
RS2	Movie Listings and Showtimes	Essential	Display movies, details, and available showtimes.	Filter by date and time.
RS3	Ticket Booking	Essential	Interactive seat selection and secure booking confirmation.	Real-time seat updates.
RS4	Real-Time Availability	Essential	Ensure real-time updates on ticket availability to prevent double bookings.	Synchronized with the booking process.
RS5	Email Notifications	Essential	Send confirmation emails with booking details and optional reminders before showtime.	Includes QR codes for tickets.
RS6	Admin Panel	Essential	Allow admins to manage movies, showtimes, and bookings.	Generate reports on bookings and revenue.

RS7	User Dashboard	Desirable	Users can view booking history and manage personal details.	Includes profile updates.
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Database Fields Specification :-

User Table

No.	Field Name	Range of Valid Values	Remarks
1	User_ID	Unique Identifier	Primary field
2	Name	Up to 50 characters	
3	Email	Valid email address	Unique and verified.
4	Password	Encrypted string	Secure storage.
5	Role	Enum (e.g., User, Admin)	Defines access level.

Booking Table

No.	Field Name	Range of Valid Values	Remarks
1	Booking_ID	Unique Identifier	Primary field
2	User_ID	Matches User_ID from User Table	Foreign key
3	Movie_ID	Matches Movie_ID from Movie Table	Foreign key
4	Show_Time	DateTime	Scheduled showtime.

5	Seat_Numbers	List of seat identifiers	Stored as an array.
6	Total_Amount	Decimal	Total booking amount.

High Level/Detailed Design (HLD/DD)

Overview of the system

- **User Features:**
 - Registration and Login.
 - Browse movies and showtimes.
 - Select seats and confirm bookings.
 - View booking history and receive email confirmations.
- **Admin Features:**
 - Manage movies, showtimes, and bookings.
 - Generate reports on bookings and revenue.
 - View system analytics.

Test Plan (TP) :-

Sr No.	Test Case Title	Description	Expected Result	Requirement in RS Table	Results
1	User Registration	Test the registration process for new users.	User can register successfully.	RS1	Passed
2	Login and Logout	Test secure login and logout functionalities.	User can log in and log out securely.	RS1	Passed
3	Browse Movies	Test the display of current and upcoming movies.	Movies and showtimes are displayed correctly.	RS2	Passed
4	Seat Selection	Test interactive seat selection.	User can select and book seats without errors.	RS3	Passed

5	Real-Time Updates	Test real-time updates for ticket availability.	Updates prevent double bookings.	RS4	Passed
6	Email Notifications	Test confirmation and reminder emails.	Emails are sent with correct details.	RS5	Passed
7	Admin Movie Management	Test the addition, update, and removal of movies.	Admin can manage movies successfully.	RS6	Passed