**LOW LEVEL DESIGN**

**(BOOK MY SHOW)**

Low-Level Design, is a phase in the software development process where detailed system components and their interactions are specified. It involves converting the high-level design into a more detailed blueprint, addressing specific algorithms, data structures, and interfaces.

**BookMyShow System Components:**

1. User Management:

• Modules: SignUp, Login, Profile Management

• Functions:

• SignUp: Collect user details, validate, and store in the database.

• Login: Authenticate users, generate session tokens.

• Profile Management: Allow users to update their details.

2. Event/Show Management:

• Modules: Add Event, Update Event, Remove Event

• Functions:

• Add Event: Add new movies, events, or shows with details.

• Update Event: Modify event details like timing, venue, etc.

• Remove Event: Delete events that are no longer relevant.

3. Booking Management:

• Modules: Seat Selection, Payment, Booking History

• Functions:

• Seat Selection: Allow users to choose seats for a particular show/event.

• Payment: Handle secure payment transactions using third-party APIs.

• Booking History: Display the user's booking history.

4. Notification System:

• Modules: Email, SMS, Push Notifications

• Functions:

• Email: Send confirmation emails for bookings.

• SMS: Send booking details via SMS.

• Push Notifications: Notify users about upcoming events.

5. Review and Rating:

• Modules: Add Review, View Reviews, Rating

• Functions:

• Add Review: Allow users to submit reviews for events.

• View Reviews: Display reviews for an event.

• Rating: Provide a rating system for events.\

6. Search and Filters:

• Modules: Search, Filter by Genre, Date

• Functions:

• Search: Allow users to search for events by title or keyword.

• Filter by Genre: Filter events based on genres.

• Filter by Date: Provide date-based filtering for upcoming shows.

7. Authentication and Authorization:

• Modules: Authentication, Authorization

• Functions:

• Authentication: Validate user credentials during login.

• Authorization: Ensure users have the right permissions for various actions.

8. Logging and Auditing:

• Modules: Logging, Auditing

• Functions:

• Logging: Log important events for troubleshooting.

• Auditing: Track and log user activities for security.

**Technology Stack:**

• Frontend: HTML, CSS, JavaScript, React.js

• Backend: Node.js, Express.js

• Database: MongoDB (for storing user and event data)

• Authentication: JWT (JSON Web Tokens)

• Payment Integration: Stripe API

• Notification Service: Twilio (for SMS), SMTP (for email), Firebase Cloud Messaging (for push notifications)