

# Software Requirements Specification (SRS) for Online Movie Ticket Application

## 1. Overview

- The purpose of this document is to specify the requirements for developing an Online Movie Ticket Application.
- This application will enable users to browse movies, view showtimes, select seats, and purchase tickets conveniently through web and mobile platforms.
- The application will cater to both users and administrators, providing functionalities for managing movies, showtimes, bookings, and user profiles.

## 2. Functional Requirements

### User Registration and Authentication

- Users should be able to register with the application by providing necessary details such as name, email, and password.
- Users must authenticate themselves securely to access their accounts and perform actions like booking tickets.

### Movie Browsing and Selection

- The application should display a list of movies currently showing, along with details such as synopsis, genre, cast, and director.
- Users can search for movies based on criteria such as genre, language, or release date.
- Each movie should have multiple showtimes displayed, showing date, time, and available seats.

### Ticket Booking

- Users should be able to select seats for a preferred showtime from an interactive seating layout.
- The system should calculate the total ticket price based on the number of seats selected and any applicable discounts or fees.
- Users can confirm their booking after reviewing the selected seats and total price.
- Upon successful booking, users should receive a confirmation email with booking details and a unique booking reference number.

### Feedback System

- Users can provide feedback, ratings, and reviews for properties they have visited, enhancing transparency and credibility in the real estate market.

### **Payment Management**

- Users can choose from multiple payment options including credit/debit cards and digital wallets.
- Secure checkout process where users enter payment details and receive immediate transaction status.
- Confirmation emails with booking details upon successful payment.
- Option for users to cancel bookings and request refunds within specified terms.
- Administrators access payment analytics for revenue tracking and transaction insights.

### **User Profile Management**

- Users should have a profile dashboard where they can view their booking history, upcoming bookings, and cancellation options.
- Users can update their profile information such as email address, password, and communication preferences.

### **Administrator Functionality**

- Administrators should have access to a dashboard for managing movies, showtimes, and user accounts.
- They can add new movies to the system, update existing movie details, and remove movies that are no longer showing.
- Administrators can manage showtimes, including adding new showtimes, modifying existing ones, and adjusting seat allocations.
- The system should provide reporting and analytics capabilities for administrators to track booking trends, revenue, and user activity.

## **3. Non-functional Requirements**

### **Performance**

- The application should be responsive and capable of handling concurrent user sessions without significant performance degradation.
- Response times for actions like seat selection, booking confirmation, and page loading should be optimised.

### **Security**

- User authentication and session management must be secure to prevent unauthorised access to user accounts.
- Payment transactions should be processed securely using encryption and comply with industry standards for online payments.
- Personal user data should be stored securely and protected against breaches.

### **Technology Stack (Updated)**

- Integration with secure payment gateways (e.g., Stripe, PayPal) for processing transactions securely.

### **Usability**

- The user interface should be intuitive and user-friendly across different devices (desktop, tablet, mobile).
- Error messages should be clear and provide guidance on resolving issues such as seat availability or payment errors.

### **Scalability**

- The application architecture should be scalable to accommodate increased user traffic during peak periods, such as weekends or holidays.
- Database design should support efficient querying and scaling to handle large volumes of data related to movies, showtimes, and bookings.

### **Availability**

- The application should be available 24/7 with minimal downtime for maintenance and updates.
- Scheduled maintenance activities should be communicated to users in advance through notifications on the platform.

## **4. System Architecture**

- Frontend: react js
- Backend: java, spring boot
- Database: MySQL or MongoDB for data storage

## **5. Constraints**

- The application must comply with legal and regulatory requirements related to data privacy, consumer rights, and online transactions.
- Integration with third-party services such as payment gateways and movie databases must adhere to their respective APIs and terms of service.

## **Conclusion:**

The **Software Requirements Specification (SRS)** document serves as a **blueprint** for the development team, ensuring clear understanding and alignment on the requirements and expectations for the Online Movie Ticket Application.

It provides a structured approach to guide the development process, testing, and eventual deployment of the application.