UE22CS341A: Software Engineering

Case Study

The SRS (Software Requirements Specification) document for an online movie ticket booking website is generally well-structured, but it could benefit from some refinements to improve clarity and completeness. Below is an outline of the SRS document.

SRS Document for online movie ticket booking website

1. Introduction

1.1 Purpose

- This document specifies the requirements for an online movie ticket booking system designed to provide an easy-to-use interface for customers to book movie tickets and for administrators to manage movie listings and bookings. The system aims to streamline the booking process and improve the efficiency of theatre operations.

1.2 Scope

- This project involves the development of a web-based movie ticket booking system for multiplex theatres. The system will allow users to browse movies, select showtimes, book tickets, and manage bookings. Administrators will be able to manage movie listings, showtimes, and bookings, as well as generate reports. The system will not include

features like mobile app integration or advanced recommendation algorithms.

1.3 Definitions, Acronyms, and Abbreviations

- **User:** An individual who accesses the website to browse and book movie tickets.
- **Admin:** A user with permissions to manage movie listings, showtimes, and user bookings.
- **Booking:** The process of reserving tickets for a movie show.
- **Frontend:** The user-facing part of the application developed using HTML, CSS, and JavaScript.
- **Backend:** The server-side part of the application developed using PHP and MySQL.

2. Overall Description

2.1 Product Perspective

- The Online Movie Ticket Booking Website will be a web-based application that users can access from any modern web browser. The frontend will be developed using HTML, CSS, and JavaScript to ensure a responsive and intuitive user experience. The backend will be implemented using PHP to handle business logic and interactions with a MySQL database for data storage and retrieval.

2.2 Product Functions

- **User Functions:**
    - **Browse Movie Listings:** Users can view a list of available movies, including details like movie title, genre, and duration.

    - **Register/Login:** Users can create an account, log in, and manage their profile.
    - **Book Tickets:** Users can select seats from a seating chart and complete the booking process.
    - **Manage Booking History:** Users can view their past bookings and cancel or modify them if necessary.
- **Admin Functions:**
    - **Manage Movie Listings:** Admins can add, edit, or remove movies from the system.
    - **Manage Showtimes:** Admins can schedule and adjust showtimes for movies.
    - **Manage Bookings:** Admins can view and manage user bookings, including handling cancellations and refunds.
    - **Generate Reports:** Admins can generate and view reports on booking statistics and revenue.

2.3 User Classes and Characteristics

- **General Users:** Individuals who visit the website to explore movie options and book tickets without needing an account.
- **Registered Users:** Individuals who create an account to manage their bookings and receive personalized recommendations.
- **Admins:** Users with elevated permissions who require access to administrative tools for managing the system.

2.4 Operating Environment

- **Web Server:** Apache
- **Server-Side Language:** PHP
- **Database:** MySQL

- **Client-Side Technologies:** HTML, CSS, JavaScript
- **Browsers:** The system should be compatible with modern browsers including Chrome, Firefox, Safari, and Edge on both desktop and mobile devices.

2.5 Design and Implementation Constraints

- **Frontend Technologies:** The frontend will be implemented using JSP, HTML, CSS, and JavaScript. JSP will handle dynamic content generation, while HTML and CSS will manage the layout and styling. JavaScript will provide interactive features.
- **Backend Technologies:** PHP will handle server-side logic and interaction with the MySQL database, which will store user and booking information.

3. Functional Requirements

1. **Movie Schedule Generation:** The system should generate movie schedules based on user-selected criteria.
2. **User Authentication:** Both customers and admins must be able to log in securely to perform their respective operations.
3. **Booking Process:** Users should be able to book tickets using a straightforward point-and-click interface.
4. **Data Verification:** The system should verify booking data before finalizing transactions to ensure accuracy.

System Features

4.1 Feature 1: Movie Listings

- **Description:** Users can view a list of available movies along with details such as movie title, genre, and showtimes.

- **Acceptance Criteria:** Movie information is displayed accurately, and users can navigate through the listings easily.

4.2 Feature 2: Booking System

- **Description:** Users can select seats from a seating chart and complete their bookings.
- **Acceptance Criteria:** Seat selection and booking processes work correctly, and users receive a booking confirmation.

4.3 Feature 3: Admin Dashboard

- **Description:** Admins can manage movie listings, showtimes, and bookings through a dedicated dashboard.
- **Acceptance Criteria:** Admins can add, update, and delete movie listings and showtimes, view booking details, and generate reports.

Additional Considerations

- **Security Requirements:** Include details about how user data and transactions will be secured.
- **Performance Requirements:** Define acceptable performance metrics such as response times for page loads and transactions.
- **Usability Requirements:** Describe user interface and user experience expectations to ensure ease of use.