

Movie Ticket Booking System
Software Requirements Specification

Revision History

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1. Purpose

The main objective of the document is to illustrate the requirements of the Movie Ticket Booking System. It provides a website for a cinema theatre where any user of the internet can access it. Online booking of tickets facilitates faster, unbiased, accurate and reliable processing of applications. It offers the simplicity of fast point-and-click service to the customers. The document gives the detailed description of both functional and non-functional requirements of the system.

1.1. Scope

Scope of the proposed system is to provide a platform to

- Provide consistent service to customer
- Minimize amount of staff and customer rush at ticket counter
- Provide a simpler way to choose seats and area for movie show
- Access to information and other movie-related promotional news
- Manage customer accounts
- Obtain statistic information from booking record

1.2. Overview

The website is an alternative, automatic and convenient way, aimed to provide the customer the complete information of the movie, according to which the customer can book the tickets. Once the data is fed into the database, the staff need not do anything and the entire order is processed by the system.

User is required to login to the system and the website provides complete information regarding currently running movies on all the screens with details of show timings, available seats. Ticket reservations are done using credit card and can be cancelled if needed.

Admin can use the system to insert and delete data (e.g. film description, time table, seats in each hall, etc.) which will update the webpage using the database. Admin can also check for the statistic information obtained from the system. This ensures smooth functionality, maintenance and conflict resolution.

2. Overall Description

2.1. Product Perspective

The proposed system will provide an option for the customers to check availability and book tickets online in a smooth and effective manner. It automates the existing manual system by the help of computerized tools for easy accessibility and user convenience.

2.2. Product Functionality/Features

The system will have users such as:

- Customer
- Administrator

Major functionalities of system will include:

- Keep record of complete information of a movie show like: movie name, show timings, auditorium details, seating chart, tickets issued, customer information etc.
- Online access for registered user to check availability and book tickets.
- Choice of theatres, filtered by their location.
- Feedback form for the users, which helps in assisting their queries and evaluating responses.
- Easy administration and maintenance of the database.
- Registration and verification of user.
- A choice for the users to view their history of movie show bookings.
- Cashless payment, which is done through net banking transactions.
- Verification of data before transaction is completed.
- Access to information and other movie-related promotional news through the newsletters.
- Maintaining the catalogue of the released and upcoming movies available on the portal.
- Generate some statistic information and reports according booking and ticket selling record.

2.3. User Characteristics

The users who will be using this system must have login ID and password. They must have knowledge of the internet and net banking also.

There will be two different users who will be using this system:

- Customer
- Administrator

2.4. Constraints

The product will be supported only by the below mentioned browsers and operating systems.

- ☐ Supported Web browsers
 - Internet Explorer
 - Google Chrome
 - Mozilla Firefox
- ☐ Supported Operating System
 - Windows OS

2.5. Assumptions and Dependencies

The proposed system needs an internet connection on the client side. It needs the following third-party products on the server side:

- WAMP SQL Server

3. Specific Requirements

3.1. Functional Requirements

3.1.1 Customer's Requirements

3.1.1.1 Login

- 3.1.1.1.1 Email Address – must be a valid email address
- 3.1.1.1.2 Password – Must have at least 8 characters, the text field must be in password mode.

The user must be logged in for booking.

3.1.1.2 Create Account

- 3.1.1.2.1 The customers can register themselves for the booking site.
- 3.1.1.2.2 For registering, the following information are required:
 - 3.1.1.2.2.1 Email address –must be a valid email address
 - 3.1.1.2.2.2 Password – Must have at least 8 characters, the text field must be in password mode.

3.1.1.2.3 Contact Details

- 3.1.1.2.3.1 Name
- 3.1.1.2.3.2 Email Address
- 3.1.1.2.3.3 Contact Number
- 3.1.1.2.3.4 Mailing Address

Upon successful registration, this information will be stored in the user database.

3.1.1.3 Manage Profile

- 3.1.1.3.1 The customers can update their profile whenever they want to.
- 3.1.1.3.2 All the fields mentioned above will be updatable except the email address.
- 3.1.1.3.3 This changed information will be updated to the database on successful updation.

3.1.1.4 Cinema Locations

- 3.1.1.4.1 The customers can search for theatre locations they want to book the tickets of.
- 3.1.1.4.2 The cinema names, addresses map locations and contact numbers are listed.

3.1.1.5 View Movie Details

- 3.1.1.5.1 The details of the movie for the location and theatre chosen will be displayed (i.e., movie name, now showing, exclusive and upcoming movies, reviews, ratings, duration, release date, genre, censor certification, format of movie, languages, cast, and a short description for the movie).
- 3.1.1.5.2 Recommended movies for the customer will also be displayed.
- 3.1.1.5.3 If registered, the customer also has an option to rate or review a movie or a theatre.

3.1.1.6 Add Movie Details

- 3.1.1.6.1 The customers can add the details of the movie.
- 3.1.1.6.2 Take all the information about the movie (i.e. movie name, movie date, time, language, format of movie, cinema name, number of tickets, ticket type, seats and payment method).

- 3.1.1.6.3 The customer can also choose the mode of payment from the list like net banking, credit card or by cash according to convenience.
- 3.1.1.6.4 Customer has to specify the number of tickets booked, depending on the type of the ticket, so that price can be calculated for the same.
- 3.1.1.6.5 Customer will get a ticket number which is a unique number per booking order.
- 3.1.1.6.6 An invoice number will also be generated for the same.
- 3.1.1.6.7 All the above-mentioned details will be stored in a database.

3.1.1.7 Payment Service

- 3.1.1.7.1 After selection of seats, the customer can proceed to payment for completion of booking.
- 3.1.1.7.2 The mode of payment can be net banking, credit card or cash. In case of net banking or credit card service, it will be a type of secure billing, provided by third party service like PayPal etc.
- 3.1.1.7.3 On applying discount or coupon codes, the customer can get a discount. Various offers for theatre fast food counters are also available.

3.1.1.8 Forget Password/ Change Password

- 3.1.1.8.1 The customers can retrieve their passwords in case they forget it. The users will be asked to submit their email address and the password will be sent to this email address.
- 3.1.1.8.2 The user can change their passwords as per their requirement. For this, they will have to enter their old password and new password. The new password also must be at least 8 characters in length.

3.1.1.9 Receive notifications on subscription

- 3.1.1.9.1 If the customer wishes to subscribe to the service, in case of change in movie timings, venue, information about upcoming movies will be sent via email.
- 3.1.1.9.2 In the subscription window, the customer has to enter his email and name which will be added in the database.

3.1.1.10 View Booking History

- 3.1.1.10.1 The customer can view the booking history of all the movie show tickets till now bought by the customer.

3.1.1.11 Clear Booking History

- 3.1.1.11.1 The customer can view the booking history of all the movie show tickets till now bought by the customer

3.1.1.12 Feedback

- 3.1.1.12.1 The customer can log a complaint or give feedback if some inconvenience is faced by the customer.
- 3.1.1.12.2 In accordance with the feedback, the data will be stored in a database.
- 3.1.1.12.3 Further communication with the customer will be done via email.

3.1.1.13 Request for report generation

- 3.1.1.13.1 The customer can request for report generation of the bookings done by him/her.
- 3.1.1.13.3 The customer can get the report in format specified like PDF, XLS etc.

3.1.1.14 Contact Us

- 3.1.1.14.1 The customer can know more about the company site and its policies.

3.1.2 Administrator's Requirements

3.1.2.1 User Management

The administrator can manage the customers of the system by:

- 3.1.2.1.1 Viewing the details of the customers
- 3.1.2.1.2 Email any particular customer
- 3.1.2.1.3 Deleting any customer
- 3.1.2.1.4 Activate/ Deactivate any customer

3.1.2.2 Movie Management

- 3.1.2.1.1 The administrator can add, update or delete the movie and theatre details, which include upcoming and now showing movies, movie name, theatre name, language, timings, dates available, reviews, ratings, duration, release date, genre, censor certification, cast, a short description for the movie, format of movie, capacity of theatres, ticket types available, prices, seats and payment methods available.
- 3.1.2.1.2 The administrator can freeze/unfreeze the seats.
- 3.1.2.1.3 The administrator can send an email if there is any change in the status of movie timings or venue.

3.1.2.3 Ad Management

- 3.1.2.3.1 Administrator can manage the advertisements placed on the website.
- 3.1.2.3.2 Placing the ads and removing them at specific time intervals is administrator's job.
- 3.1.2.3.3 For this the google ads feature will be used.

3.1.2.4 Pricing/Discount Sessions

- 3.1.2.4.1 The administrator can also provide and update special discount sessions and offers for bookings.

3.1.2.5 Report Management – Statistics of customers/ bookings

Administrator can also view various reports likely:

- 3.1.2.5.1 Statistics of customers in the site
- 3.1.2.5.2 Statistics of bookings in the site

3.2 External Interface Requirements

3.2.1 Software Interfaces

- Database Management System: SQL Server
- Development and connection: Text Editor, Browser
- Technology: Java Script, HTML, CSS, PHP, Bootstrap

3.2.2 Communication Interfaces

- The proposed system needs internet connection. The HTTP protocol will be used to facilitate communication between client and server.

3.3 Design and Implementation Constraints

Database accuracy and data retrieval speed:

The online central database and offline database should be synchronized at particular intervals.

4.1 Security and Privacy Requirements**4.1.1 Authentication**

- Only authenticated users will be allowed for booking tickets and view details of movie, seating arrangements, make payment online etc.
- The unauthenticated users will only be allowed to browse through the site and can see the services provided by the system.
- The security will be based on the simple password protection.
- There will be captcha if the user forgets the password and the recovery of the password will be sent to the user via link in the backup mail ID.

4.1.2 Authorization

- Security needs to be checked on the applicable pages to prevent URL manipulations.

4.1.3 Privacy

- The bookings done by a particular user can only be seen by the user itself and the administrator.

4.2 Other Requirements**4.2.1 Reliability**

- The reliability of the system depends on separate components like the database manager, operating system etc. With the help of above-mentioned software and hardware interfaces, reliability will be achieved by the system.

4.2.2 Availability

- The online system will be available 99% of the time.
- In case of a of a hardware failure or database corruption, a replacement page will be shown. Backups of the database should be retrieved from the server and saved by the administrator. Then, the service will be restarted.

4.2.3 Maintainability

- A commercial database will be used for maintaining the database and the application server takes care of the site. In case of a failure, a re-initialization of the program will be done. Also, the software design will be done with modularity in mind so that maintainability can be done efficiently

4.2.4 Portability

- The system can run on any device that has a browser and internet connection.
- The application is scripting language based. So, the end-user part is fully portable and a system using any web browser should be able to use the features of the system, including any hardware platform that is available or will be available in the future.

4.3 Computer Resource Requirements**4.3.1 Computer Hardware Requirements****Server side:**

- Pentium 4 processor
- 80 GB HDD or higher
- 512MB RAM or higher
- NIC

Client side:

- Pentium processor
- 256MB RAM or higher
- Internet Connection

4.3.2 Computer Software Requirements

Server side:

- Windows 2000 or later version
- MS SQL 2008

Client side:

- Browser
- SQL Server