Movie Ticket Reservation System

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Introduction

Movie Ticket Reservation System is a Java stand-alone application which will allow the movie theatre faculty and viewers to handle the movie ticket reservation activity effectively through an application. The system provides Good GUI according to which viewer will be able to book tickets quickly and safely as per the availability of the seats and the movie in the theatre.

This System will remove the file system dependency and provide flexibility to manage the entire system through a single portal. This project will provide facilities like ticket booking, seat management, payment options and refund in case of ticket cancellation. The System will be simple and appealing which will make the viewers comfortable to choose any movie and seat of their choice in the desired location of the movie theatre. There will be no credentials needed from the viewer's end in order to search for the movie and seat availability in their nearby location but in case of ticket booking, the viewer will have to enter their credentials and complete the payment safely. The System will also maintain all the records so that the viewer is able to view his booking history.

Functional Requirement of this Project

1. Registration: If the viewer wants to book the ticket, the viewer should be a registered user. In case unregistered, the user cannot book the ticket and needs to create an account and login using the credentials.
2. Search Movie and Seat: The system will have a search function for viewers to select theatres and seats as per their desired location, date and time.
3. Payment: To book the ticket, the viewer will be provided by a secure billing process ensuring safe payment through debit or credit card.
4. Cancellation: The viewer can also cancel the ticket and initiate a refund process with or without fine handled by the management and releasing that seat so that another viewer can view them while booking a ticket.
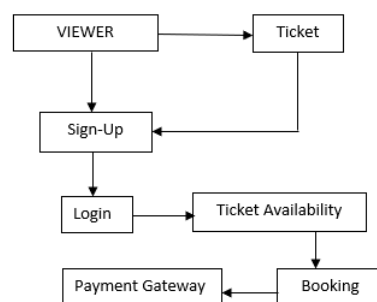
Non-Functional Requirement of this Project

1. Performance: The application should run from the client's end and depends on various factors like the load time while searching for movies or while completing the payment process.
2. Security: The customer has to provide their card details in order to complete the payment of the ticket reservation. Hence the app should ensure security so that the customer is comfortable to use the application.
3. Accessibility: The viewer should be able to access the application through any device.
4. Reliability: The device needs to constantly maintain the records of all the viewers and their bookings so that the viewer is able to view the booking history. For this the system should be able to maintain and update the most recent changes.

Use Cases of Movie Ticket Reservation System:

This complete system will function through three users: the viewer, the manager and the owner
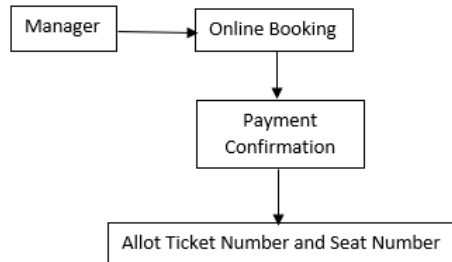
1. The case of viewers of ticket reservation system:

The viewer can search for the availability of the movie tickets for some movie at their nearby location. For booking the ticket, the viewer needs to sign-up to receive their userID which will be used for booking the ticket. The viewer can then proceed to pay securely for booking as well as cancel the booked ticket and get a refund.
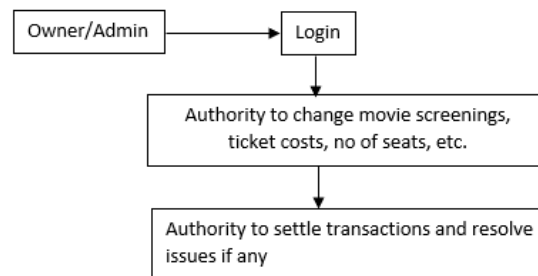
2. The case of Managers of ticket reservation system

The Manager will check and confirm the booking and payment details. The Manager will also have the authority to allot ticket numbers and seat numbers to viewers.

3. The case of the Owner of ticket reservation system

The Owner of the ticket reservation system has the authority to change the screenings of the theatre, update the new movies, decide the ticket costs and availability. He is provided with a separate userID and password and can monitor the daily transactions and can decide the offers and discounts on movie tickets. Also, the owner is authorized to resolve any kind of issues regarding transactions and refunds.

Technologies Used (Front-End and Back-End) and Domain

Front End:

JavaFX: a Software platform for creating and delivering desktop applications.

Back End:

Microsoft SQL Server Management Studio

Technical Requirements:

Below is the technology that was required to build this project

Java

JavaFX

MySQL

Tools Used:

Java Eclipse

Microsoft SQL Server Management Studio.

ER Diagram

UML Diagram