



PES University, Bengaluru

(Established under Karnataka Act 16 of 2013)

Department of Computer Science & Engineering
Session: Jan - May 2022

UE20CS352 – Object Oriented Analysis and Design with Java

Report on

Movie Ticket Booking Management System

By:

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6th Semester E

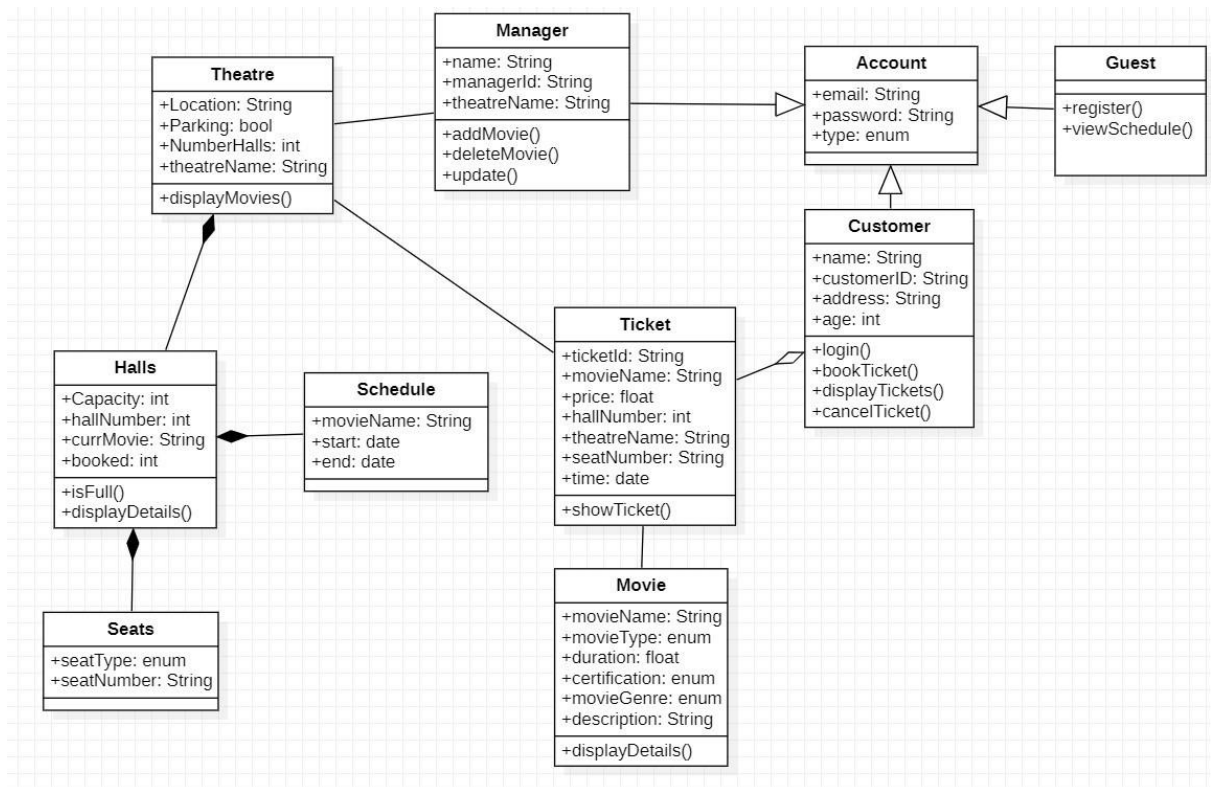
1. Project Description:

- Movie Ticket Booking Management System - a complete application where a user can book tickets to watch a movie and review them; and theatre managers can schedule their movies.
- We have two roles - User and Manager.
- If the user is a new user, then he/she must first register and then be able to login to book tickets. The logged in user can view the movies available and book tickets for movies that have been added to the schedule by the manager. After successfully booking the tickets and doing the payment for the tickets, the user can review/rate the movies he/she has watched as well.
- A manager can view the current movie schedule for the theatre. He can add new movies to be scheduled or remove existing movies from schedule.
- Both the manager and user views are in sync when a movie gets updated.

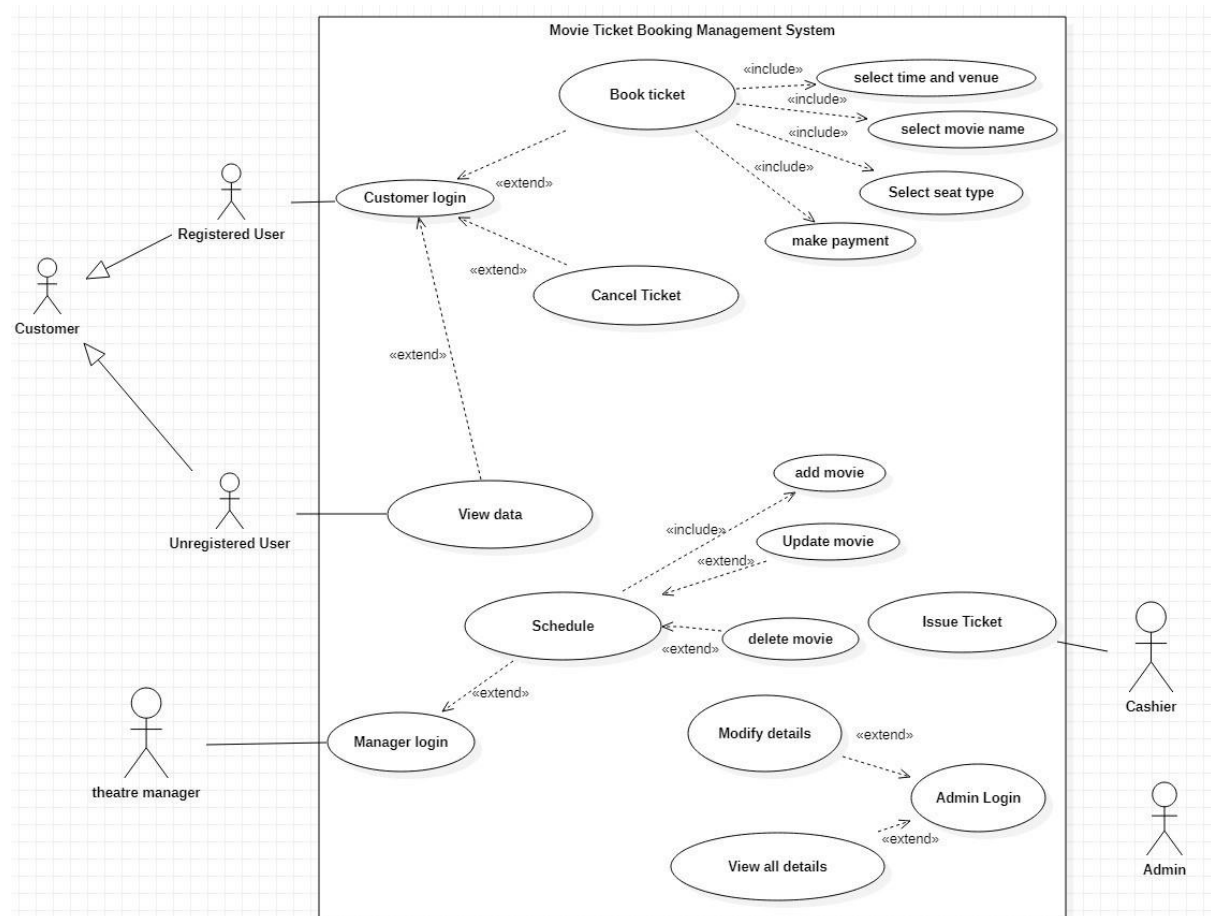
2. Analysis and Design Models:

- Our architecture pattern is MVC.
- Decomposition of our project was done based on functionality.
- The below diagrams give an understanding as to how we designed our application and its use cases.

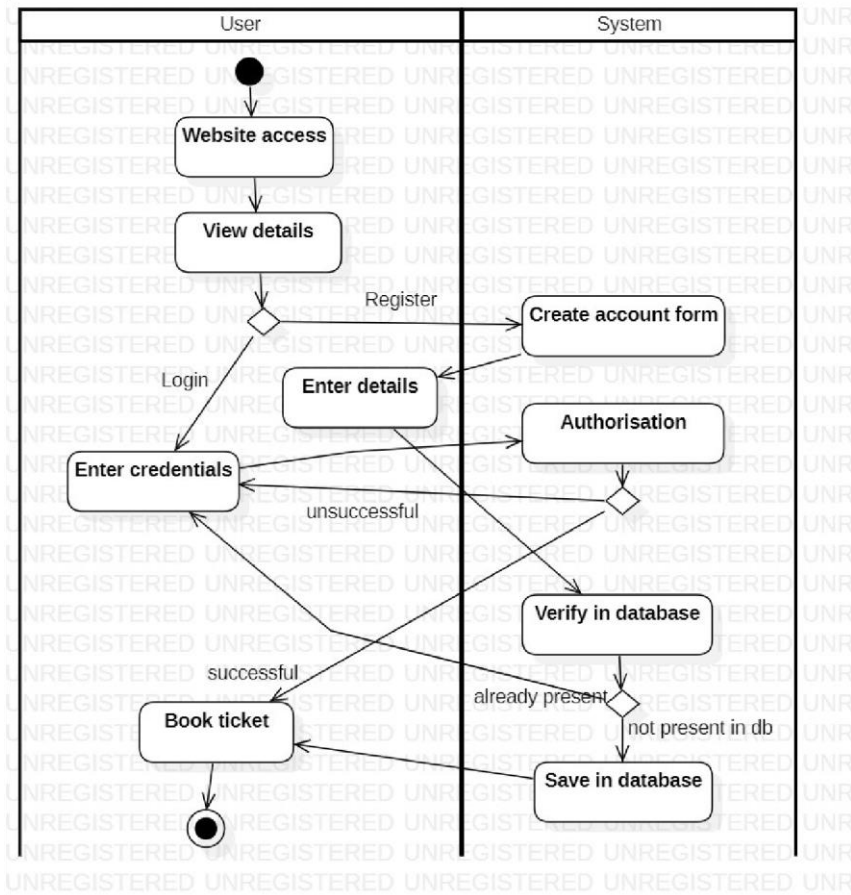
Class Diagram:



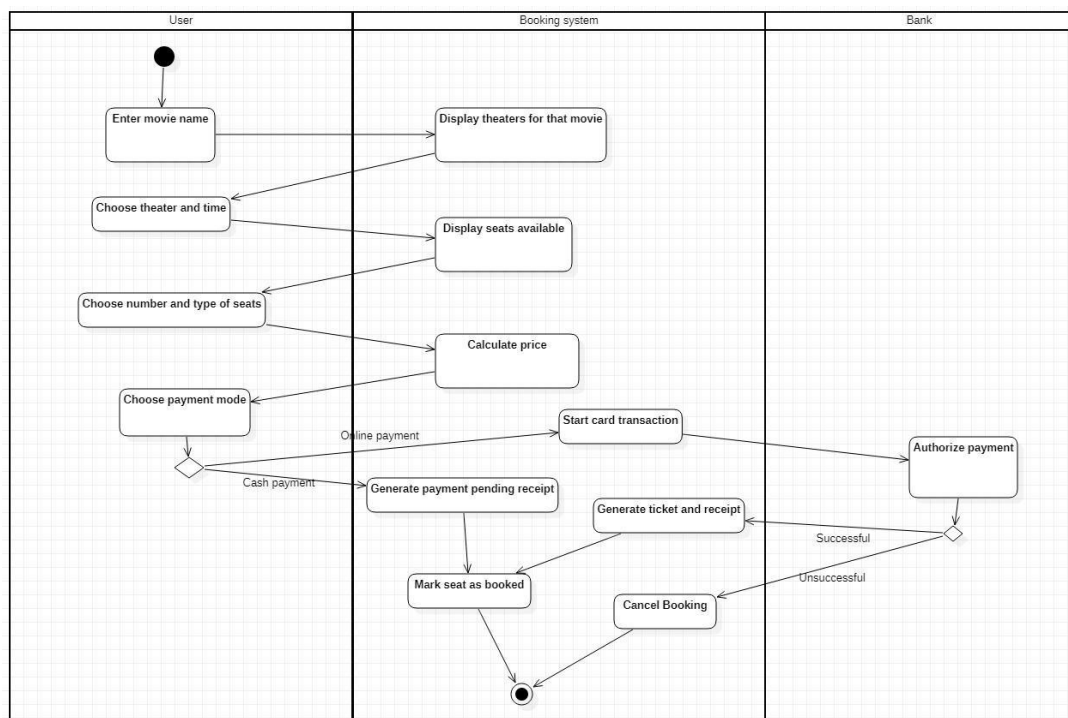
Use cases:



Login/Register Activity Diagram:

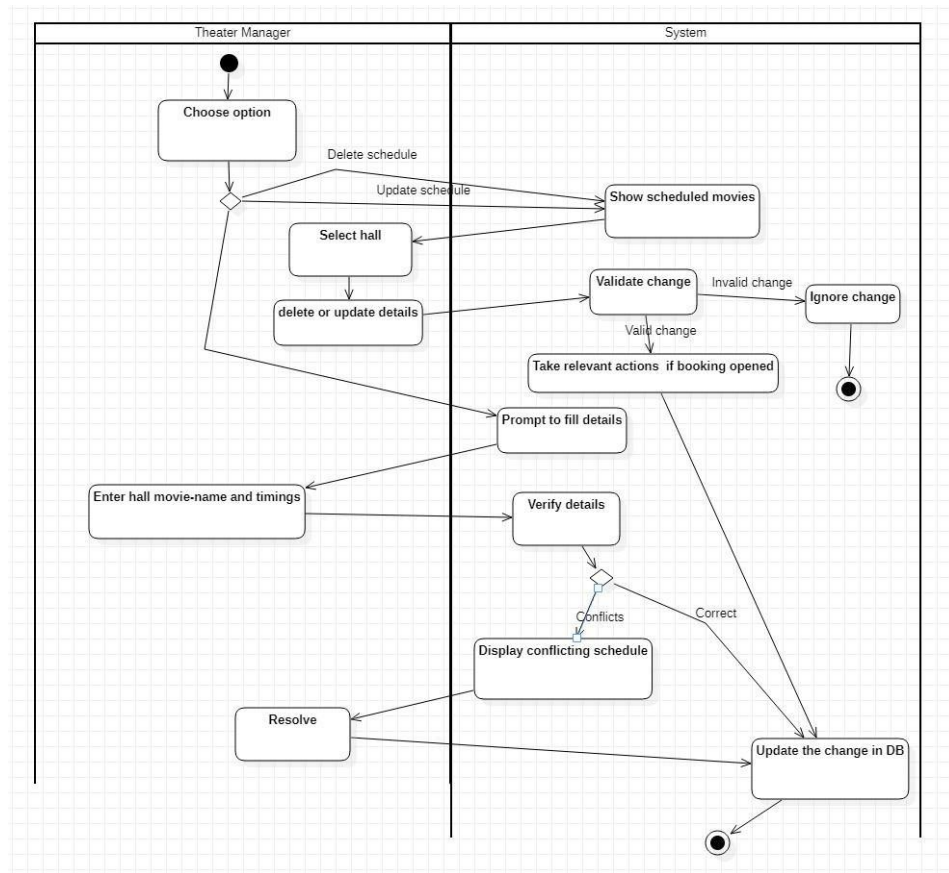


Book Ticket Activity Diagram:

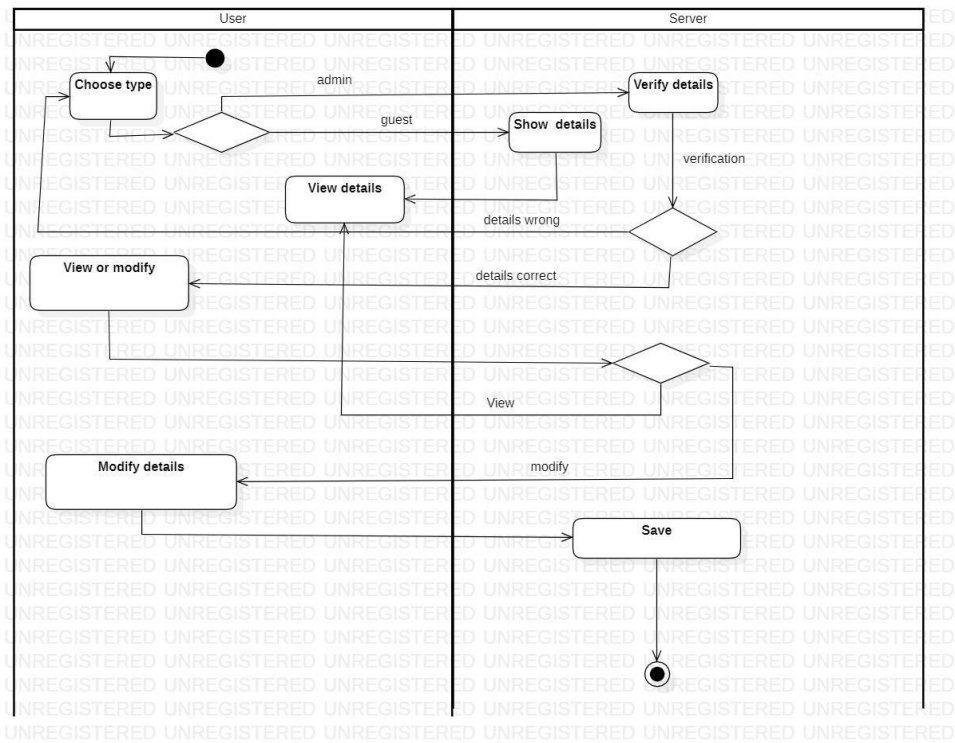


Schedule Activity Diagram:

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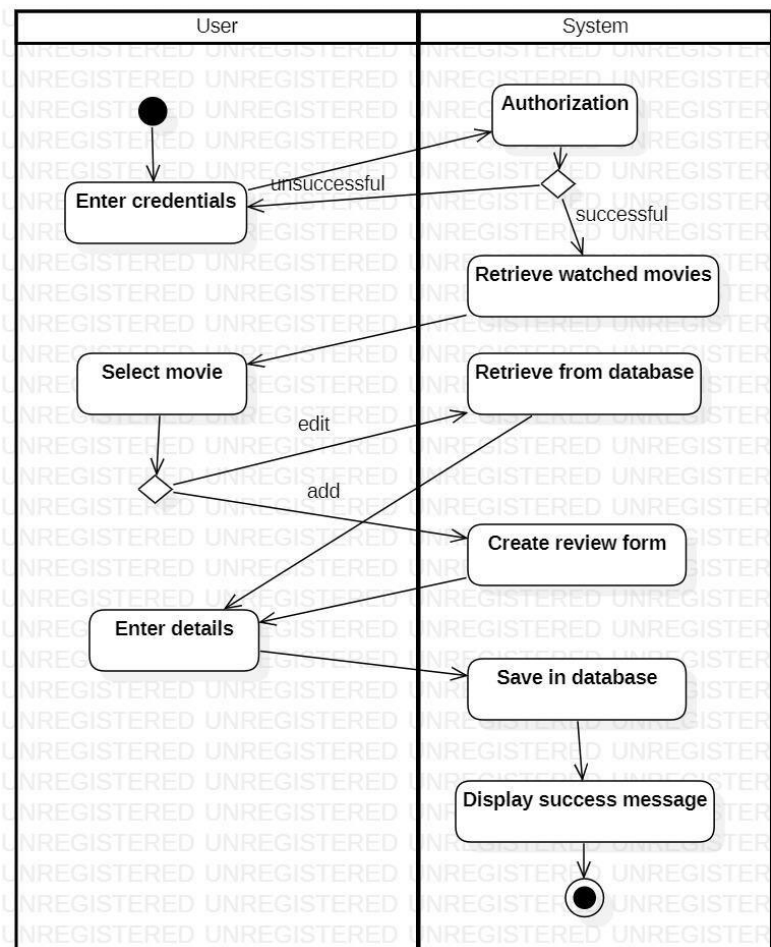


○ View/modify details Activity Diagram:

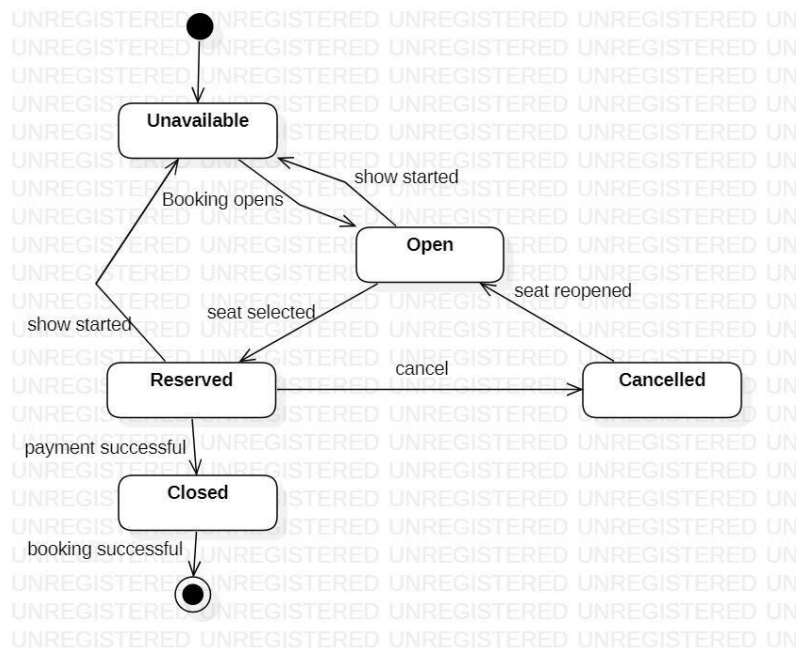


Review movie Activity Diagram:

○

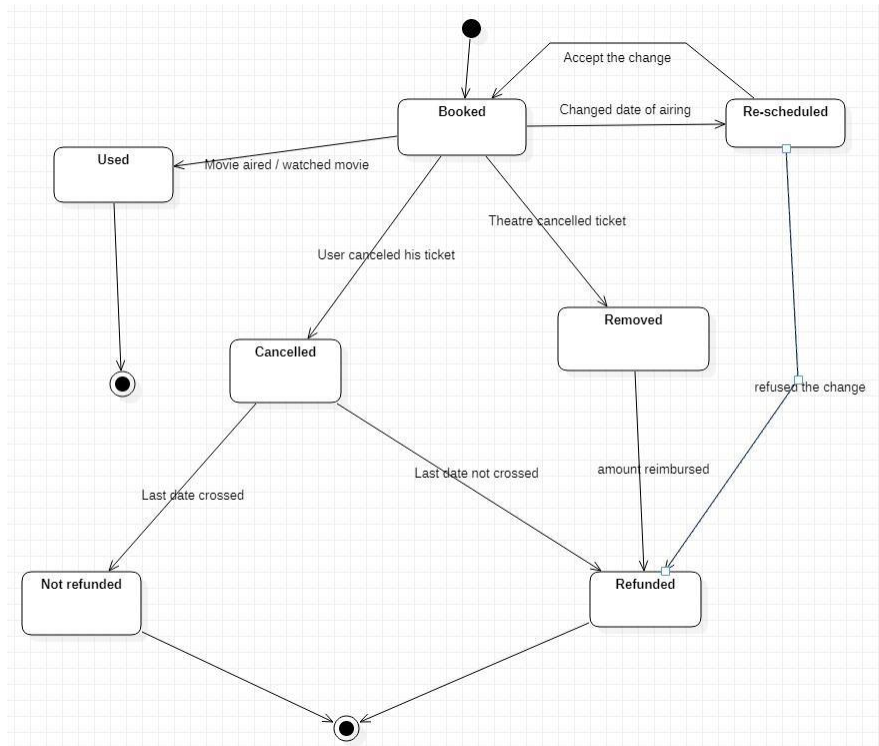


○ Theatre seat State Diagram:

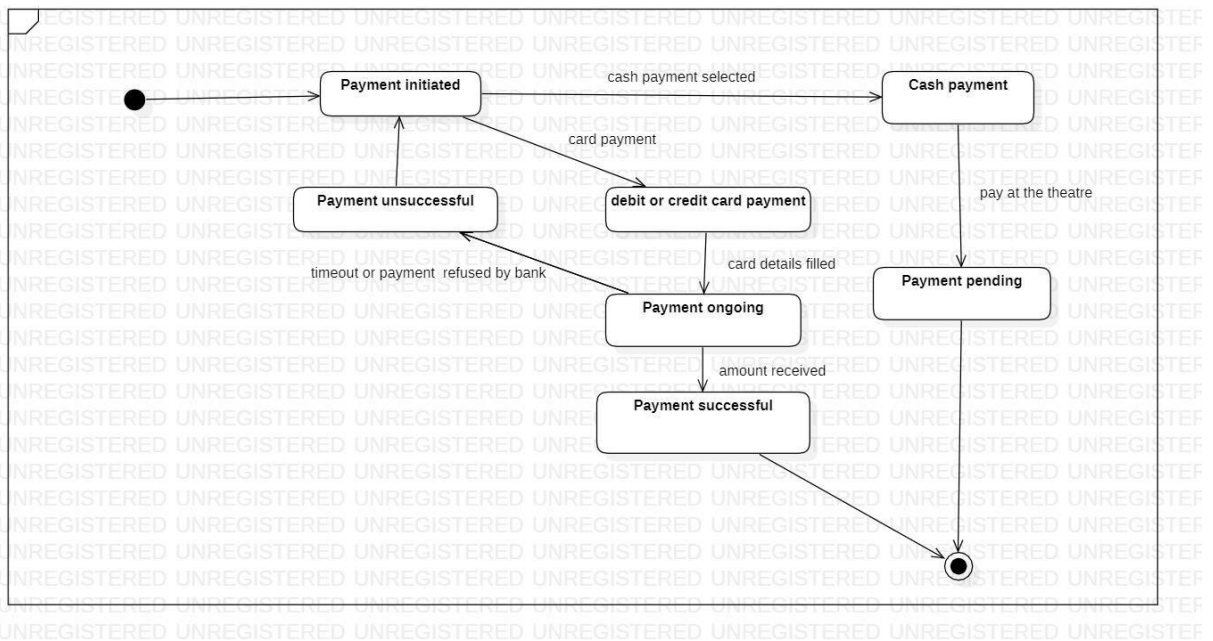


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Ticket State Diagram:



○ Payment State Diagram:



3. Tools and Frameworks Used:

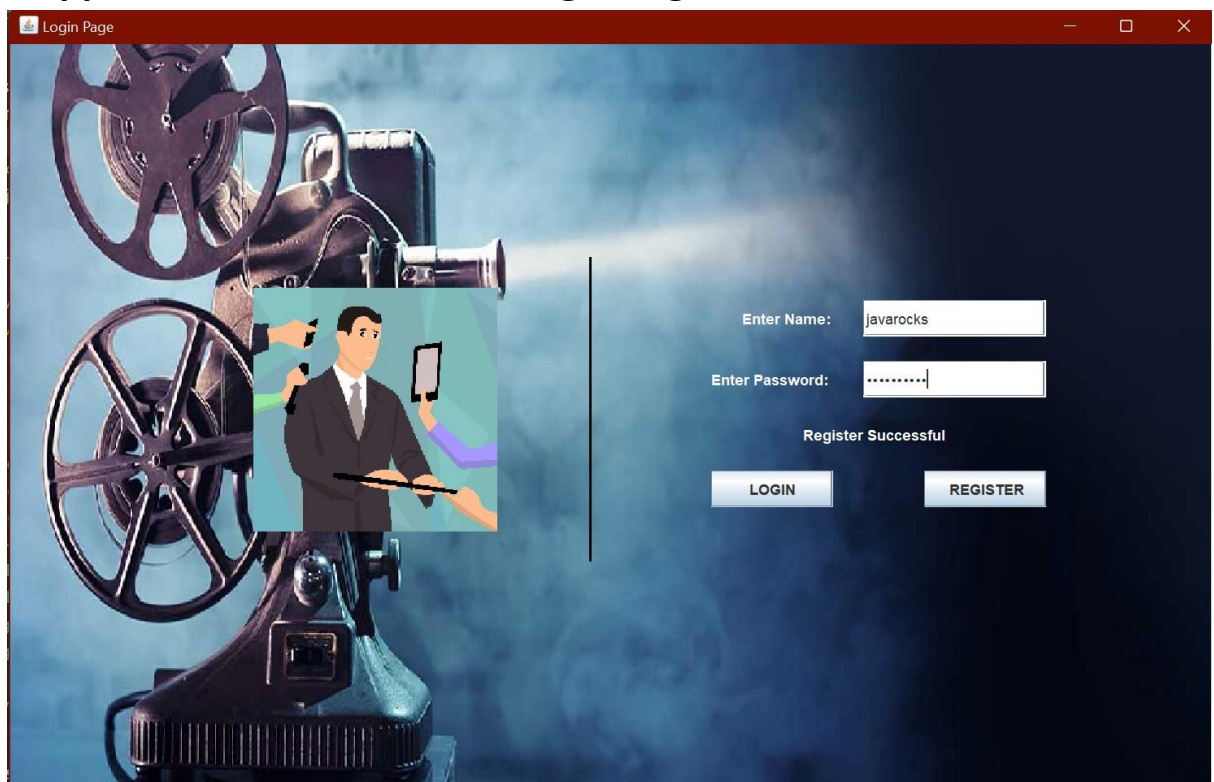
- Visual Studio Code
- Swing and AWT - for interactive UI
- PostgreSQL as database component

4. Design Principles and Design Patterns Applied

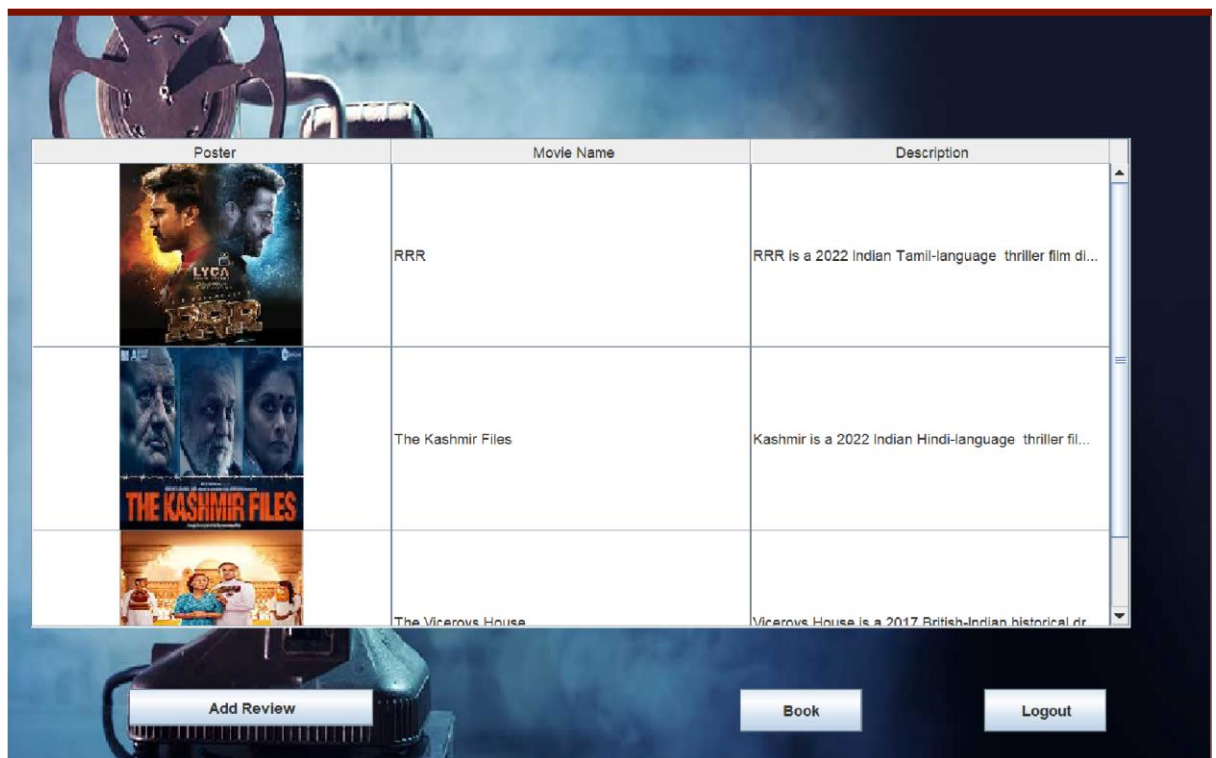
We have mainly used two Design Patterns among others:

- **Singleton: (SingleDatabase class)** We have made the database connection and operations class as a singleton class. This will avoid efficiency loss by having unnecessary multiple connections and keep a single connection to the DB during the application lifetime.
- **Factory: (UserTypeFactory class)** Since this application has two types of user the movie watcher and theatre manager, based on the credentials entered the factory class will determine which class the new instance should belong to and which view should be displayed




5. Application Screenshots: ● Login Page:



User Dashboard:

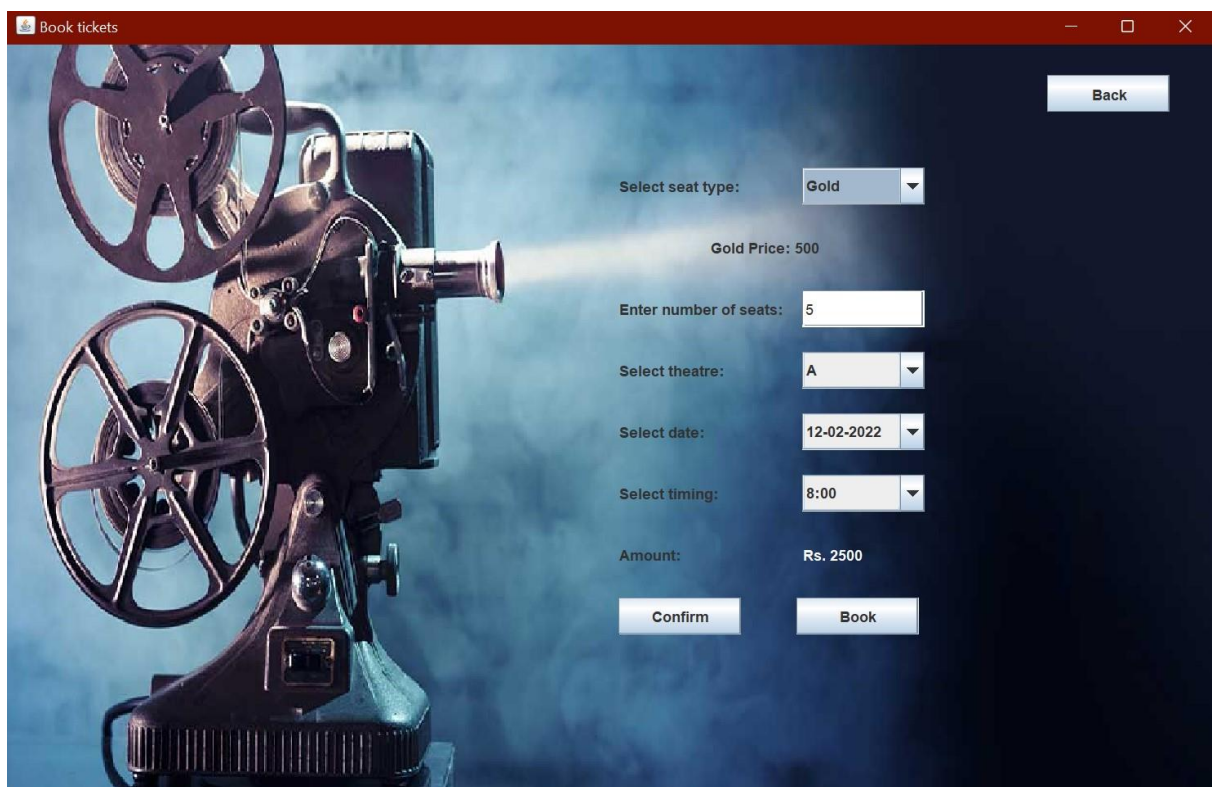


The User Dashboard features a background image of a vintage movie projector. It contains a table with movie information and three action buttons at the bottom.

Poster	Movie Name	Description
	RRR	RRR is a 2022 Indian Tamil-language thriller film di...
	The Kashmir Files	Kashmir is a 2022 Indian Hindi-language thriller fil...
	The Vicarous House	Vicarous House is a 2017 British-Indian historical dr...

At the bottom of the dashboard, there are three buttons: "Add Review", "Book", and "Logout".

Book Ticket Page:

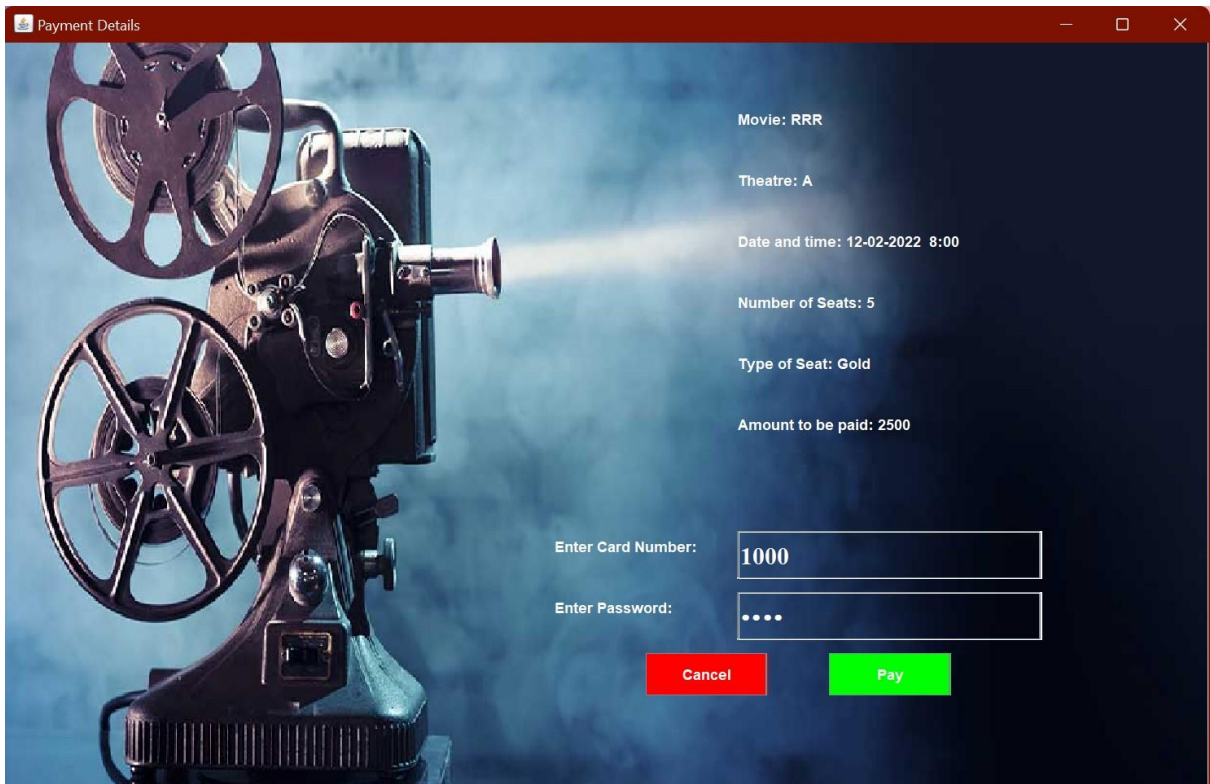


The Book Ticket Page is a form for booking movie tickets. It includes a "Back" button in the top right corner. The form fields are as follows:

- Select seat type:** A dropdown menu with "Gold" selected.
- Gold Price:** 500
- Enter number of seats:** A text input field containing the number "5".
- Select theatre:** A dropdown menu with "A" selected.
- Select date:** A dropdown menu with "12-02-2022" selected.
- Select timing:** A dropdown menu with "8:00" selected.
- Amount:** Rs. 2500

At the bottom of the form, there are two buttons: "Confirm" and "Book".

Payment Page:

A screenshot of a web application window titled "Payment Details". The background features a vintage movie projector on the left, casting a beam of light towards the right. On the right side, there is a list of transaction details: "Movie: RRR", "Theatre: A", "Date and time: 12-02-2022 8:00", "Number of Seats: 5", "Type of Seat: Gold", and "Amount to be paid: 2500". Below this list are two input fields: "Enter Card Number:" with the value "1000" and "Enter Password:" with four dots. At the bottom right, there are two buttons: a red "Cancel" button and a green "Pay" button.

Payment Details

Movie: RRR

Theatre: A

Date and time: 12-02-2022 8:00

Number of Seats: 5

Type of Seat: Gold

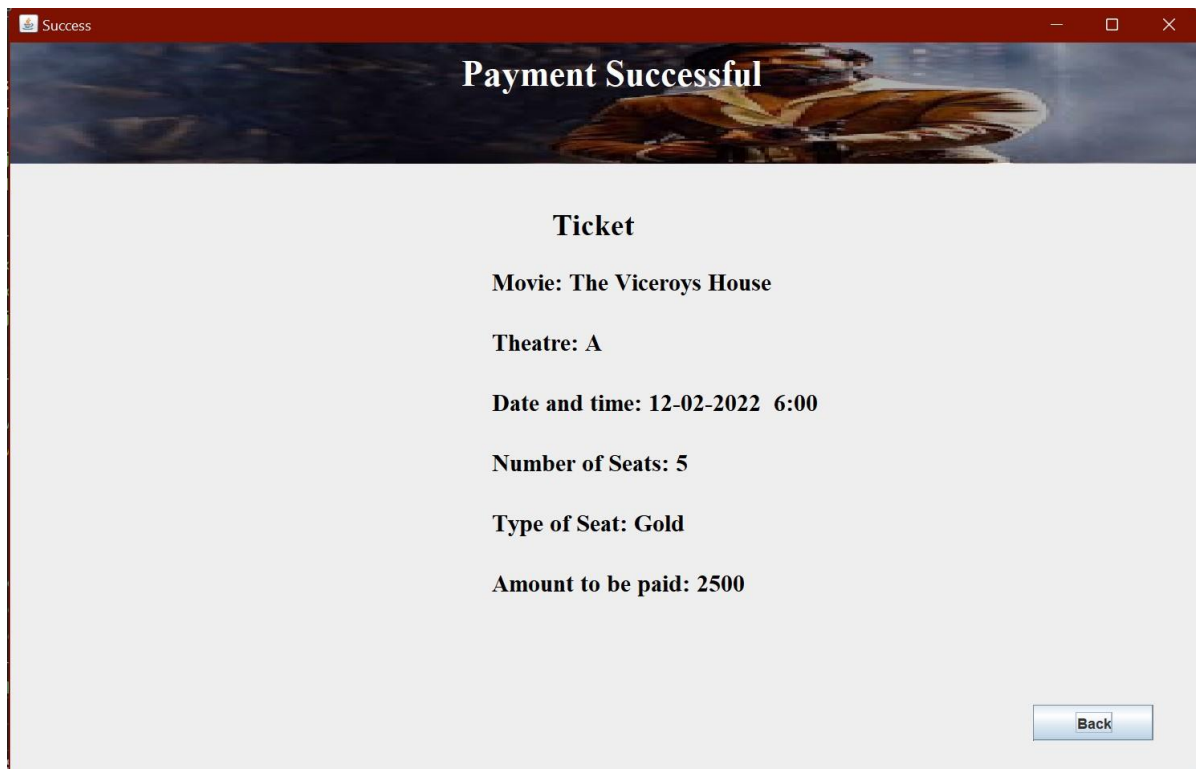
Amount to be paid: 2500

Enter Card Number: 1000

Enter Password:

Cancel Pay

Payment Success Page:

A screenshot of a web application window titled "Success". The header area has a dark background with a close-up image of gold coins. The main content area is light gray and displays the following information: "Ticket", "Movie: The Viceroy's House", "Theatre: A", "Date and time: 12-02-2022 6:00", "Number of Seats: 5", "Type of Seat: Gold", and "Amount to be paid: 2500". A "Back" button is located in the bottom right corner.

Success

Payment Successful

Ticket

Movie: The Viceroy's House

Theatre: A

Date and time: 12-02-2022 6:00

Number of Seats: 5

Type of Seat: Gold

Amount to be paid: 2500

Back

Review Page:

Review Page

Back

Movie	Rating	Review
RRR	5	Liked it very much. Must watch!
The Viceroy's House	Not Rated	

Review

Add Review Page:

Leave a Review

Back

Rating:

4

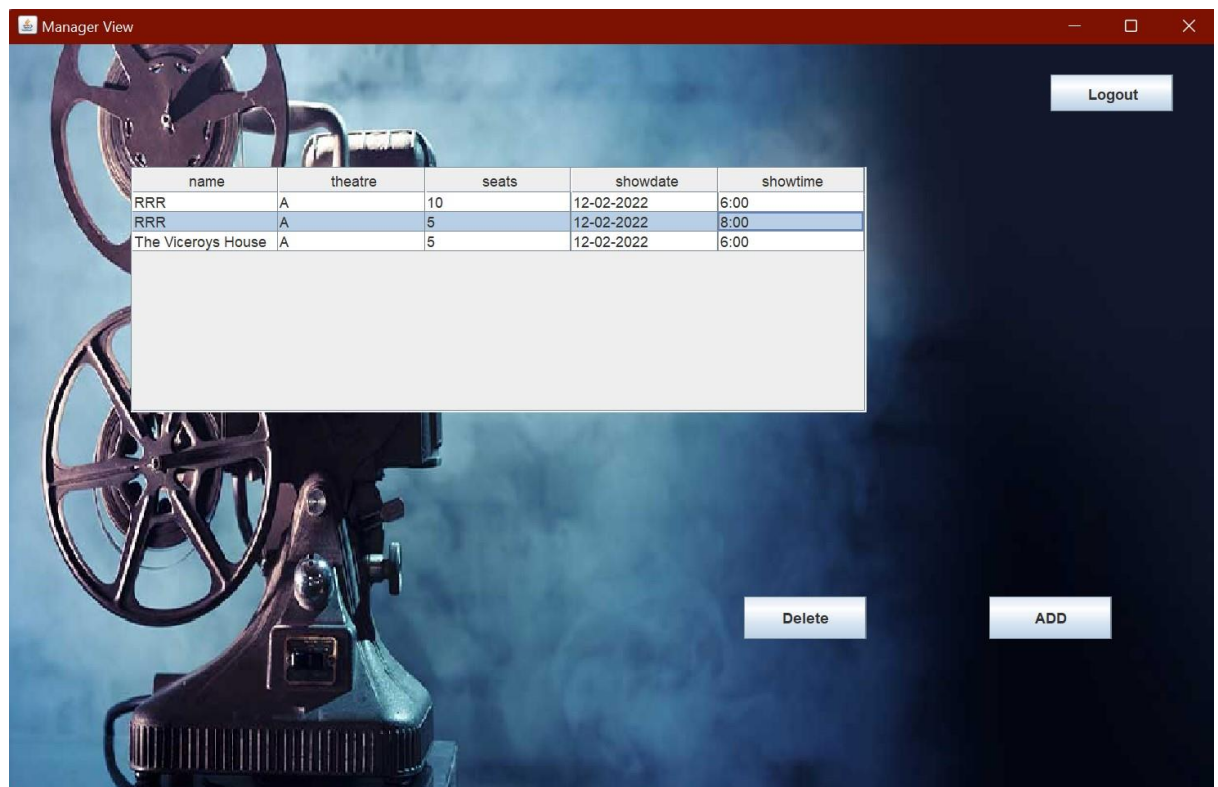
Review:

Very good movie.

Review Updated

Submit

- **Manager Dashboard Page:**



- **Add Movie Page:**

