SMART INTERNZ

TEAM NO:546

ONLINE MOVIE TICKET BOOKING SYSTEM

DEVELOPED BY

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PROJECT DOMAIN

Web Application

ABSTRACT:

An online movie booking system is a digital platform that enables users, both administrators and customers, to efficiently manage and access a vast collection of movies. This system offers a range of functionalities that streamline the movie booking process, providing a seamless experience for all users involved. By incorporating digitalized management, the online movie booking system simplifies tasks such as movie monitoring, addition of new releases, updating movie information, searching for suitable options, issuing tickets, and facilitating returns when necessary.

One of the unique features of this system is the ability for customers to watch movie trailers while browsing through available titles. This innovative approach revolutionizes the movie selection process, allowing users to make informed decisions based on preview content. Compared to traditional methods, the digital nature of this system offers numerous advantages, including enhanced convenience, improved accessibility, and a more personalized movie booking experience for both administrators and customers.

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1. Introduction

The online booking system, CinemAtEase, is a website developed using the Spring Boot framework with Java as the backend language. It provides users with a platform to book movie tickets conveniently. The system consists of two types of users: the admin, responsible for managing theaters, shows, and movies, and the customer, who can book tickets based on selected theaters and show timings. CinemAtEase offers additional features such as movie trailer previews and automated email notifications upon successful registration and ticket booking.

1.1 Purpose

The purpose of CinemAtEase is to create an intuitive and user-friendly online platform that allows customers to book movie tickets easily. The system aims to streamline the ticket booking process, provide information about theaters, shows, and movies, and enhance the overall movie-going experience.

1.2 Scope

CinemAtEase will include the following main features:

- User authentication and registration

- Theater, show, and movie management by the admin

- Movie trailer previews during the ticket booking process

- Email notifications for successful registration and ticket booking

- Customer ticket booking based on theater and show selection

1.3 Definitions, Acronyms, and Abbreviations

- **Admin:** The user with administrative privileges responsible for managing theaters, shows, and movies.

- **Customer:** The user who can book movie tickets based on theater and show selection.

2. Overall Description

The CinemAtEase online booking system provides a platform for customers to book movie tickets. This section provides an overview of the system, including its product perspective, software requirements, and user characteristics.

2.1 Product Perspective

CinemAtEase is a standalone web application that interacts with a MySQL database to store theater, show, movie, user, and booking information. It serves as an interface between the admin and customers, allowing the admin to manage the system's data while enabling customers to book tickets online.

2.2 Software Requirements

The CinemAtEase system is built using the Spring Boot framework with Java as the backend language. The frontend is developed using HTML, CSS (Bootstrap library), and JavaScript. The system utilizes a MySQL database for data storage and retrieval.

2.3 User Characteristics

The CinemAtEase system caters to two types of users:

- **Admin:** The admin user has privileges to manage theaters, shows, and movies. They are responsible for adding and updating information related to the system's entities.

- Customer: The customer user can register, browse available movies, select theaters and show timings, and book movie tickets. They can also watch movie trailers before making a booking.

3. Functional Requirements

This section outlines the functional requirements of the CinemAtEase system, categorized for different stakeholders.

3.1 For all Stakeholders

- **Authentication:** All users must be able to log in to the system using their credentials.

- Registration: Customers should be able to register for an account on the system.

- Password Recovery: Users should have the ability to recover their passwords in case they forget them.

3.2 Customer Specific

- Browse Movies: Customers should be able to browse and search for available movies.

- Select Theater and Show: Customers should be able to select a theater and show timing for booking movie tickets.

- Watch Movie Trailers: Customers should be able to watch movie trailers before booking tickets.

- Book Tickets: Customers should be able to book movie tickets based on theater and show selection.

- **Receive Email Confirmation:** Customers should receive an email notification upon successful registration and ticket booking.

3.3 Admin Specific

- **Manage Theaters:** Admins should be able to add, edit, and delete theater information.

- **Manage Shows:** Admins should be able to add, edit, and delete show information.

- **Manage Movies:** Admins should be able to add, edit, and delete movie information.

4. Other Non-Functional Requirements

This section describes the non-functional requirements of the CinemAtEase system.

4.1 Usability Requirement

- **User-Friendly Interface:** The system should provide an intuitive and easy-to-use interface for both admins and customers.

- **Responsive Design:** The system should be responsive and accessible across different devices and screen sizes.

4.2 Availability Requirement

- **System Uptime:** The system should be available to users without any significant downtime. Regular maintenance windows should be scheduled during off-peak hours.

4.3 Efficiency Requirement

- Response Time: The system should respond quickly to user actions, minimizing waiting time.

- Optimized Database Queries: The system should have efficient database queries to ensure fast retrieval of information.

4.4 Accuracy Requirement

- Data Integrity: The system should ensure the accuracy and integrity of data stored in the database.

- Error Handling: The system should provide appropriate error messages and handle exceptions gracefully.

4.5 Performance Requirement

- Scalability: The system should be able to handle a large number of concurrent users and perform well under heavy load conditions.

- Response Time: The system should have low response times to provide a seamless user experience.

4.6 Reliability Requirement

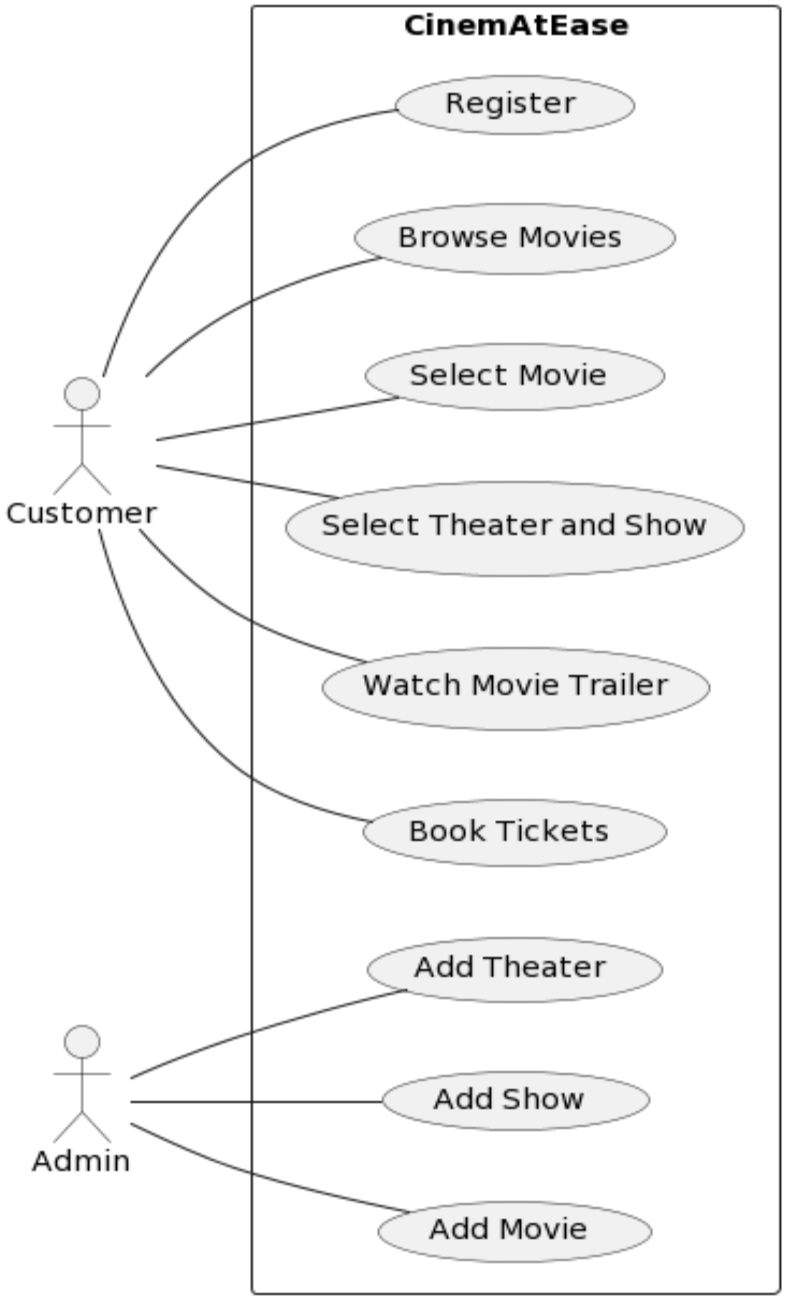
- Data Backup: Regular backups of the database should be performed to prevent data loss in case of any unforeseen circumstances.

- Error Logging: The system should log errors and exceptions to facilitate troubleshooting and issue resolution.

5. UML DIAGRAMS OF THE SOFTWARE

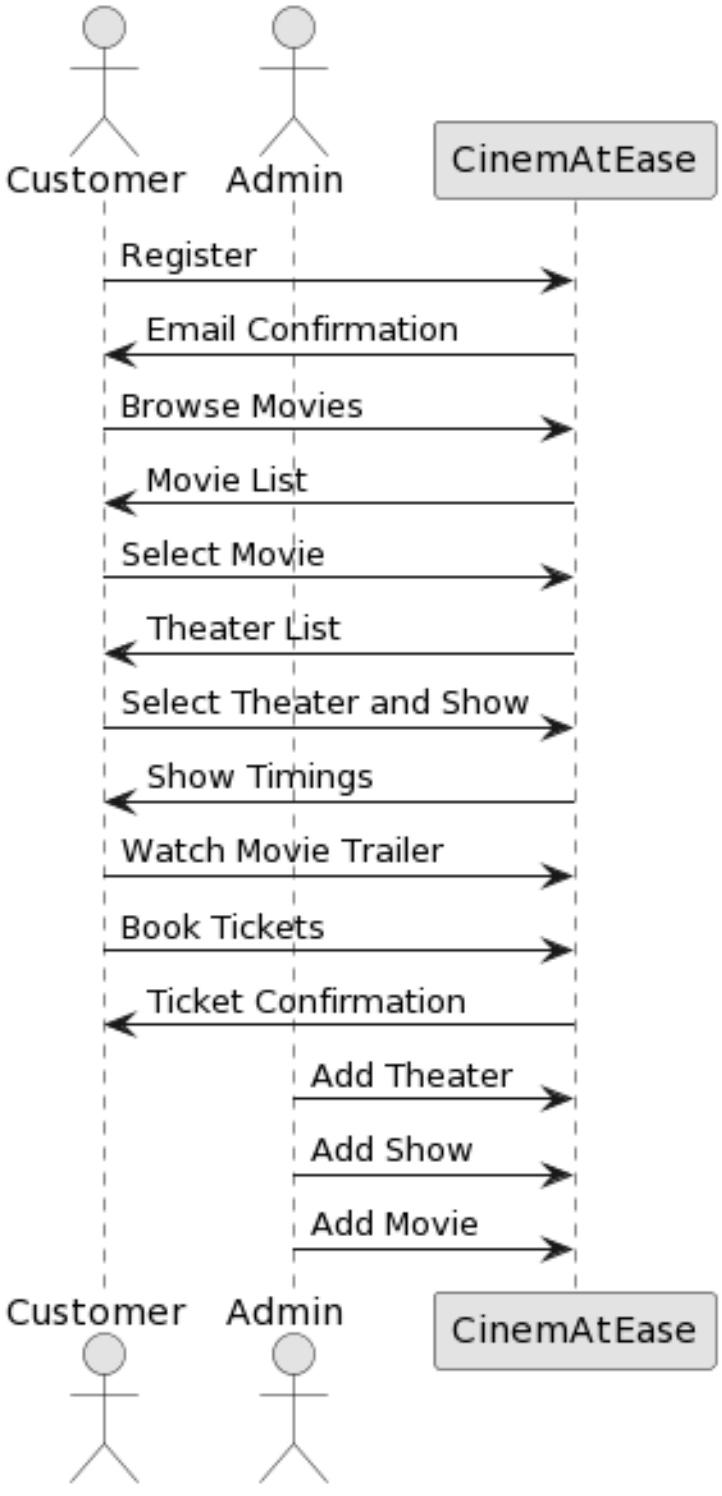
UML diagrams, including use case diagrams, class diagrams, and sequence diagrams, will be created during the system design and development phase. These diagrams will provide a visual representation of the system's structure and behavior.

5.1 USE CASE DIAGRAM



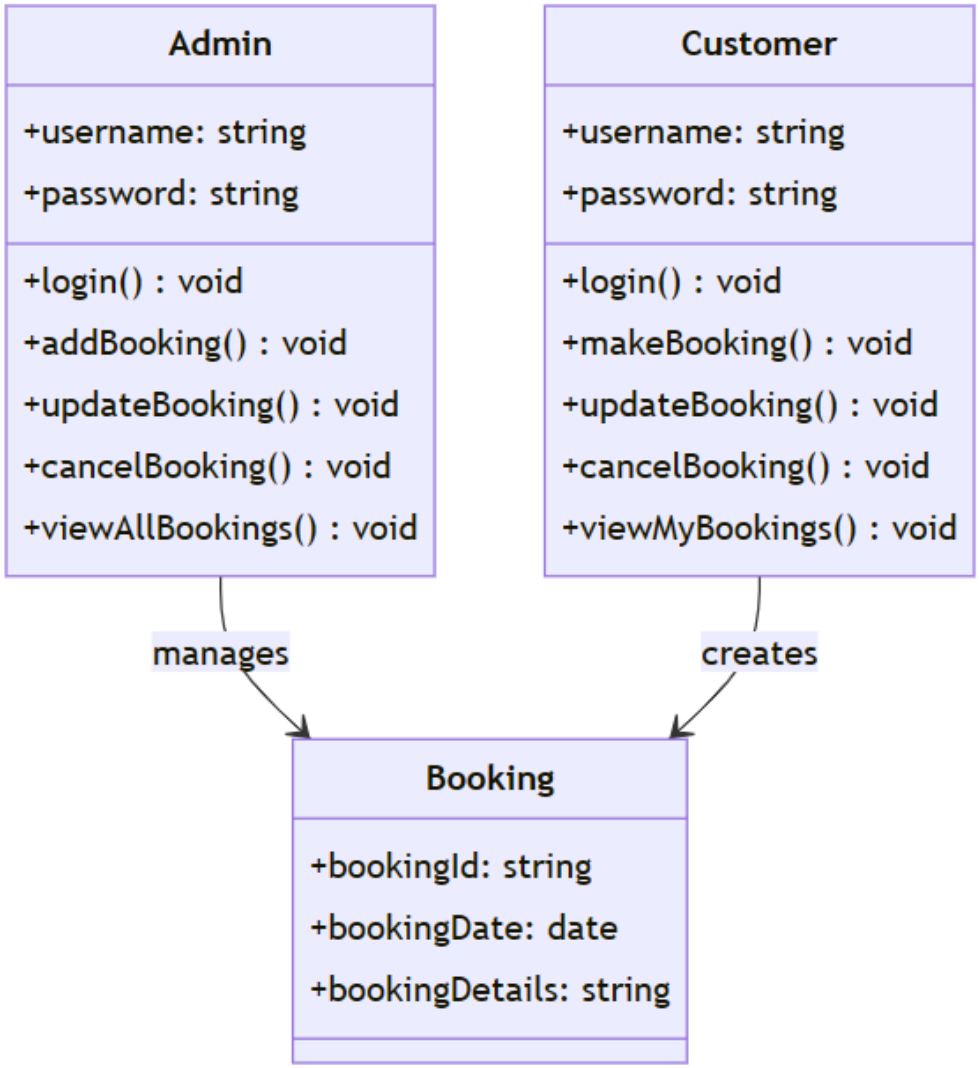
As you can see, we have mainly two actors Librarian and Customer and also, we have listed the use cases of both of them.

5.2 SEQUENCE DIAGRAM

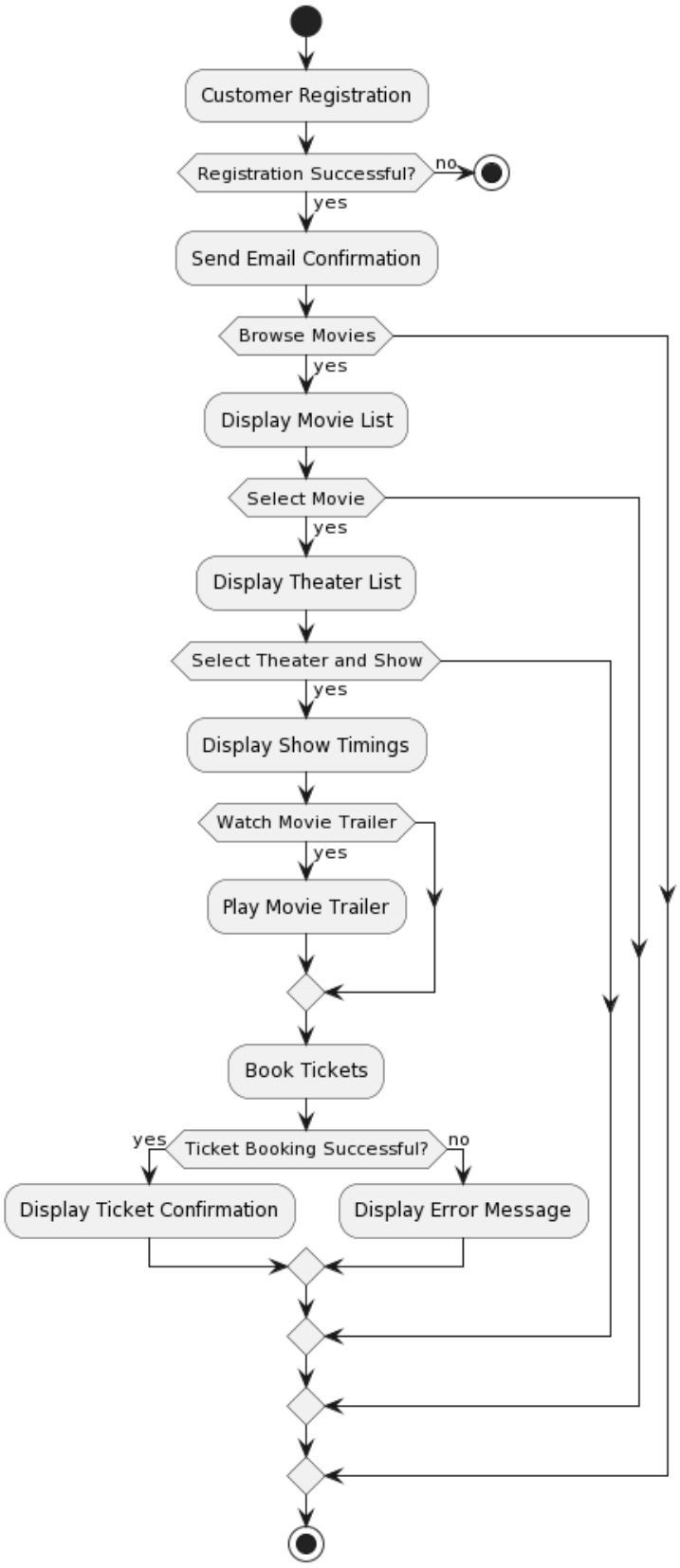


Here we have the sequence diagram, we start from the single task which is "Creating an account" which is common for both librarian and customer and then we can login and do many other tasks.

5.3 CLASS DIAGRAM



5.4 ACTIVITY DIAGRAM

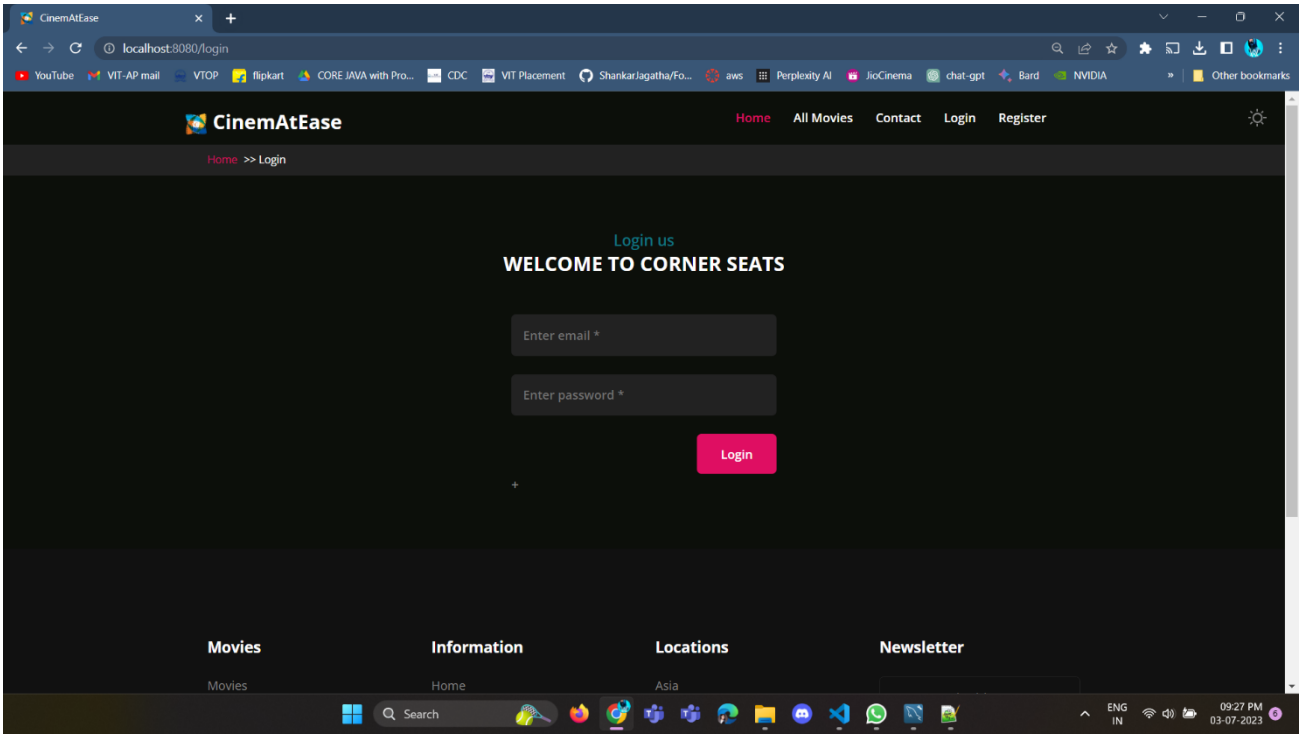


Here we have the activity diagram for both customer and the librarian.

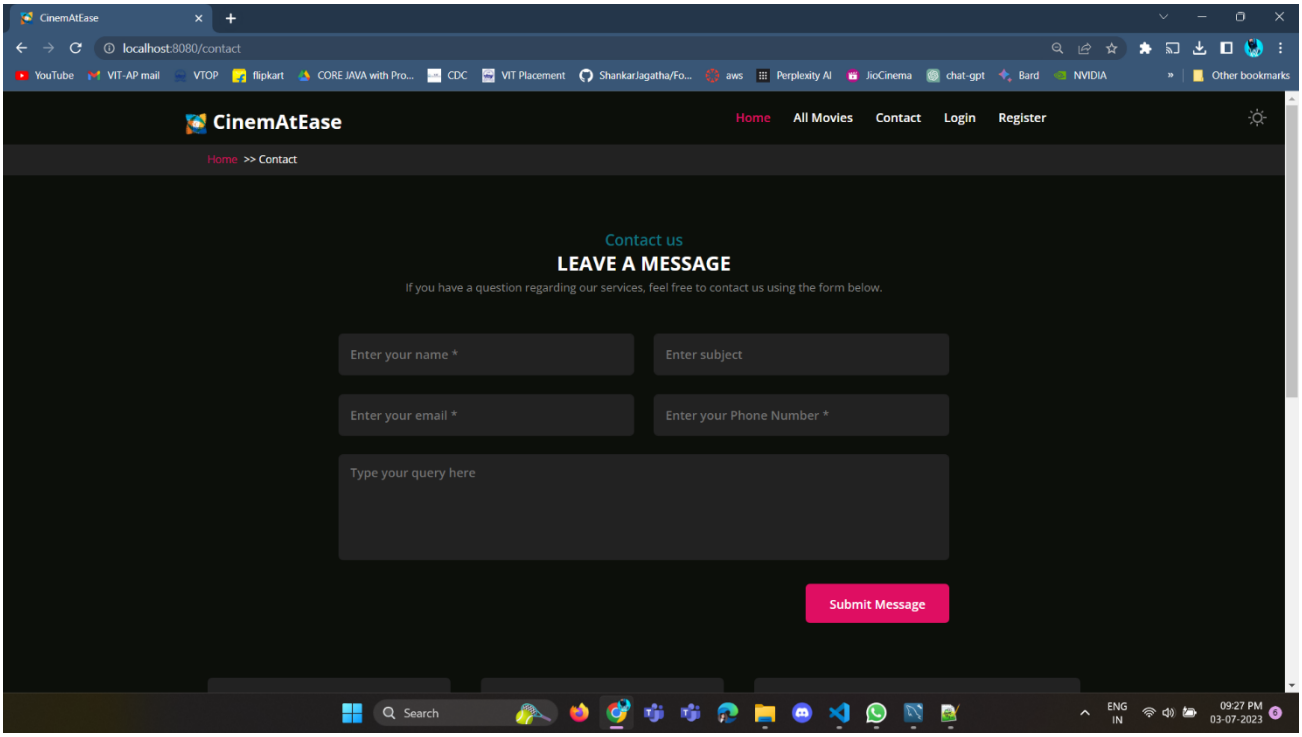
6.IMPLEMENTAION OF THE SOFTWARE

6.1 - HOME PAGE:

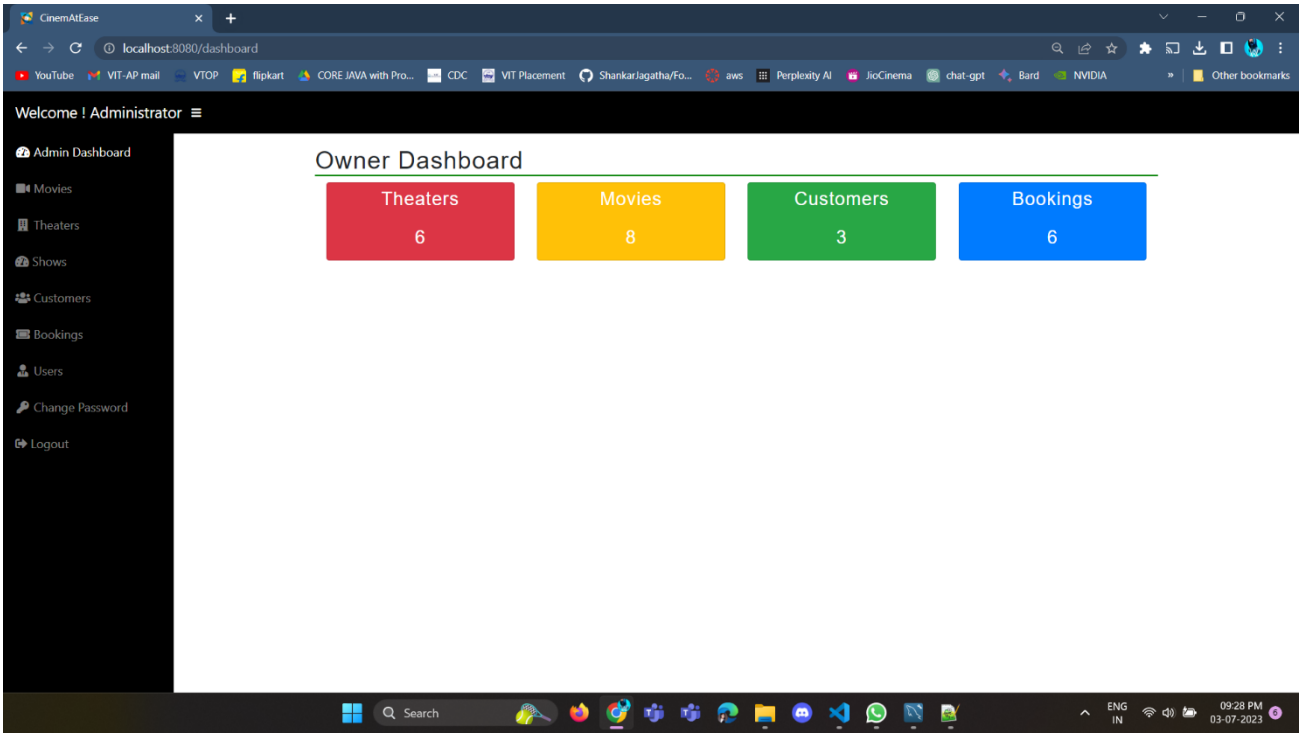
6.2 - LOGIN PAGE:



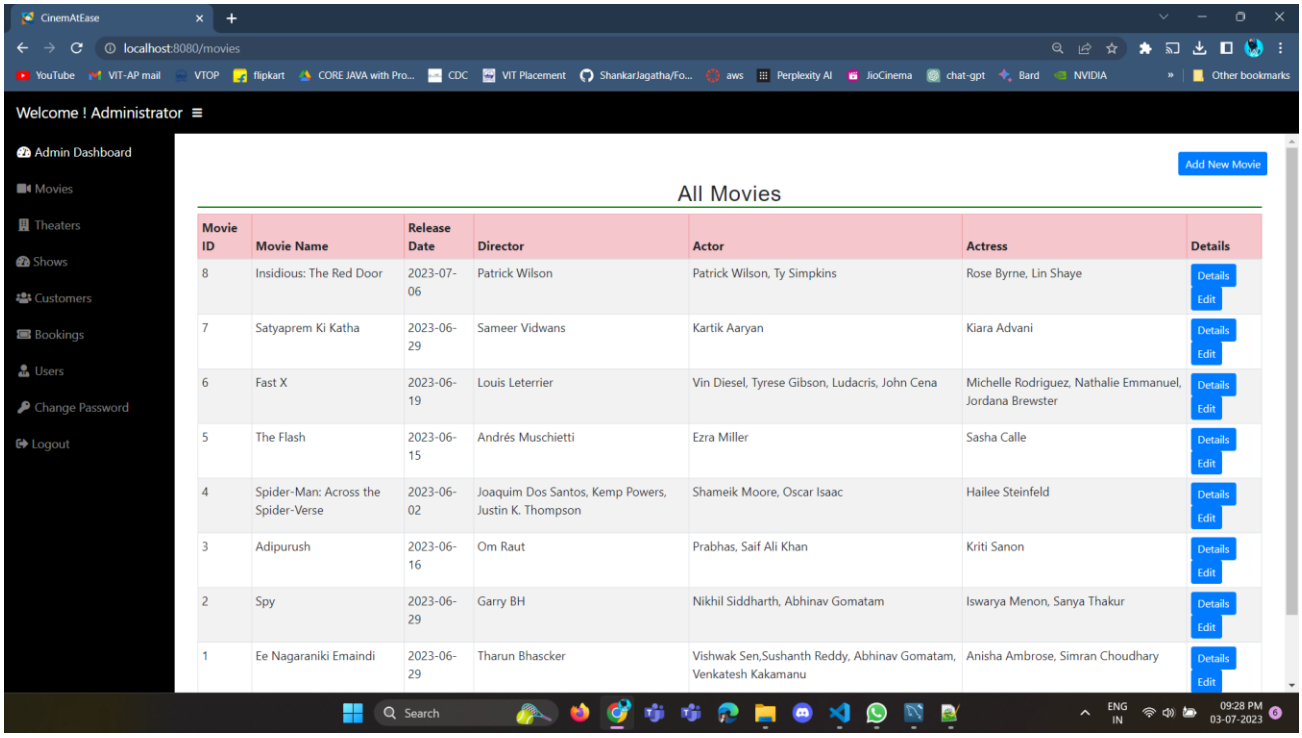
6.3 – CONTACT US PAGE:



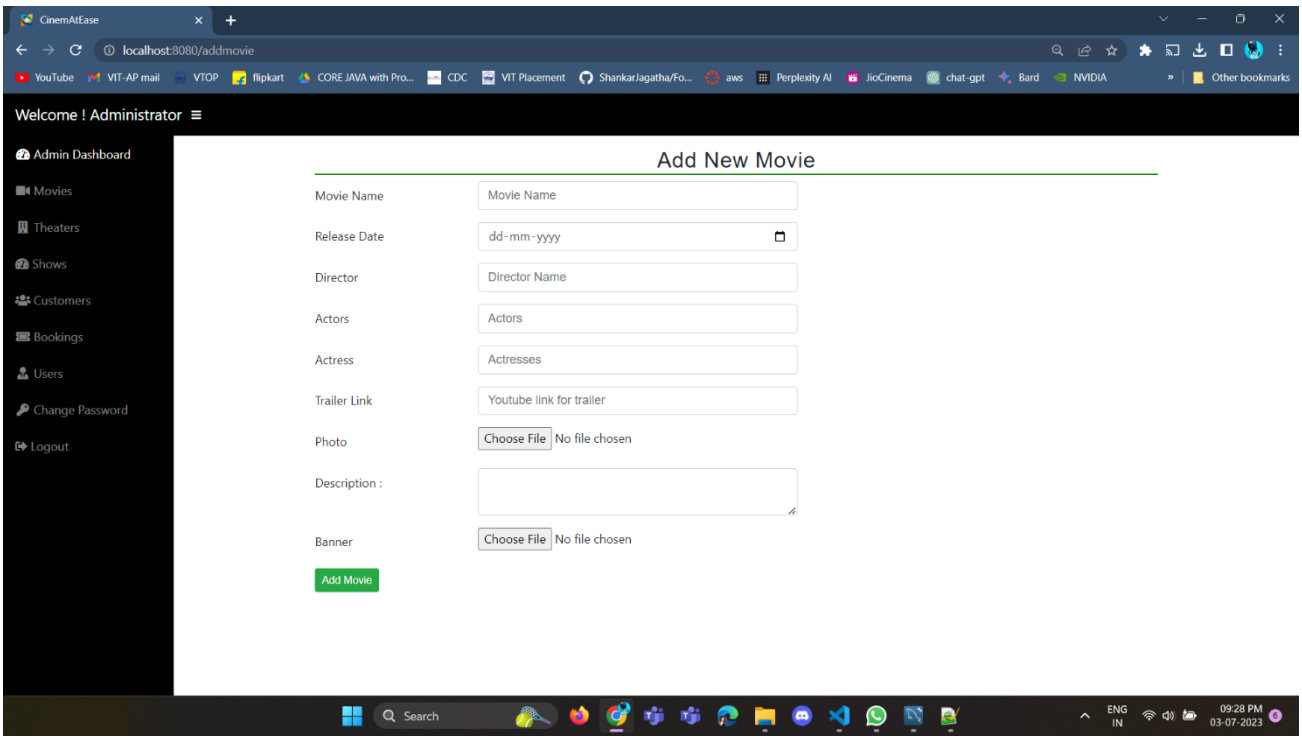
6.4 – ADMIN DASHBOARD PAGE:



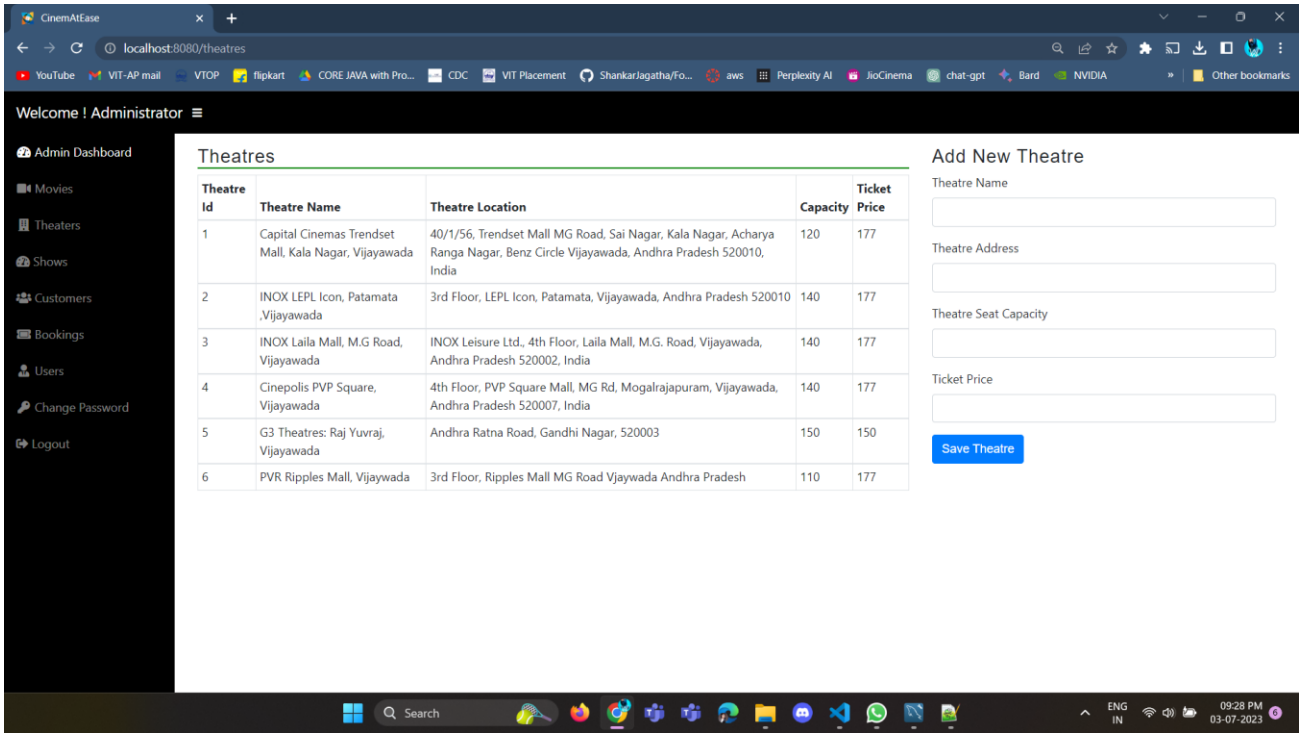
6.5 – DISPLAYING CURRENT MOVIES PAGE:



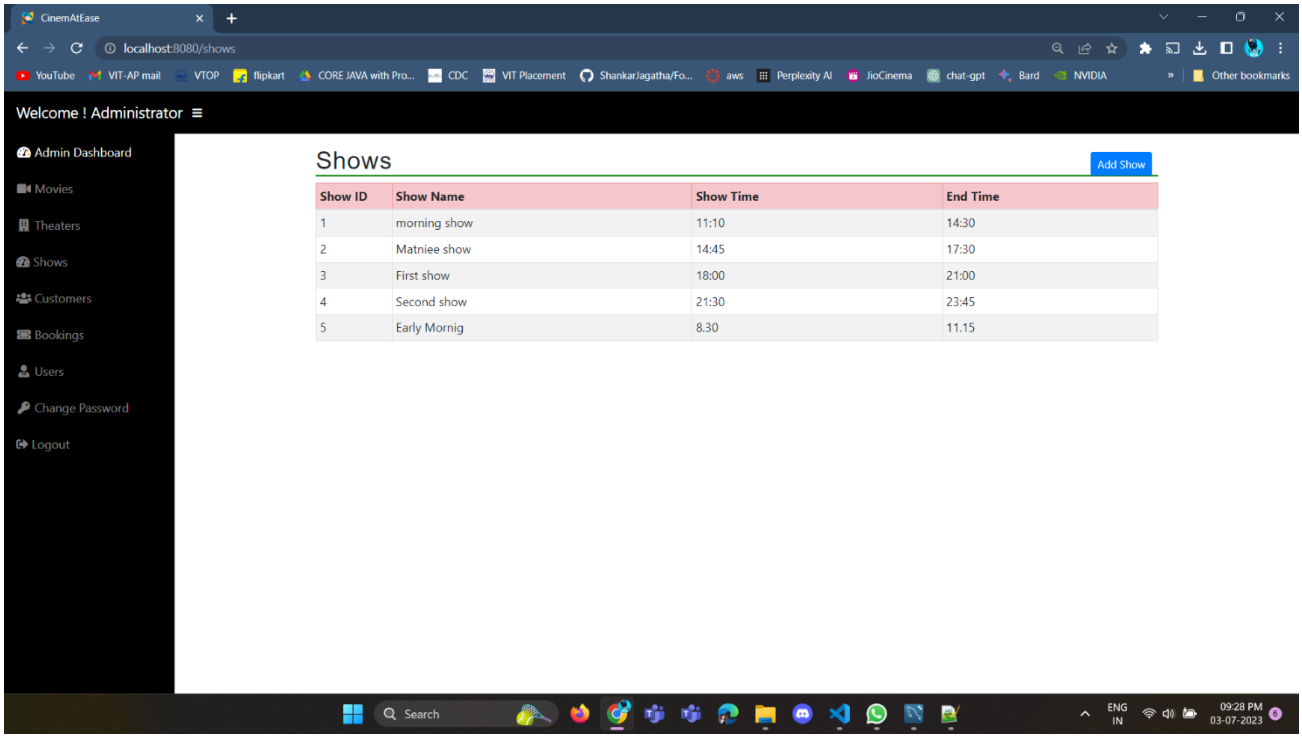
6.6 - ADD MOVIES PAGE:



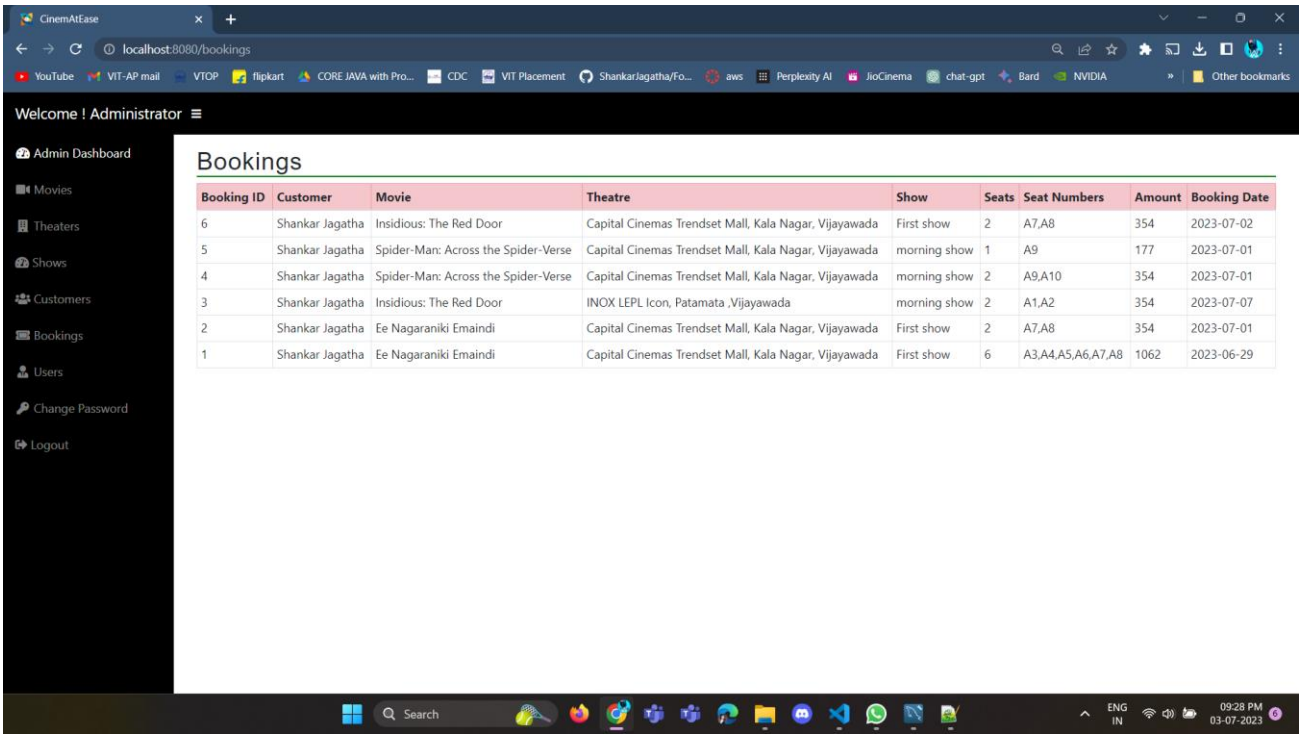
6.7 – DISPLAY AND ADD THEATRE PAGE:



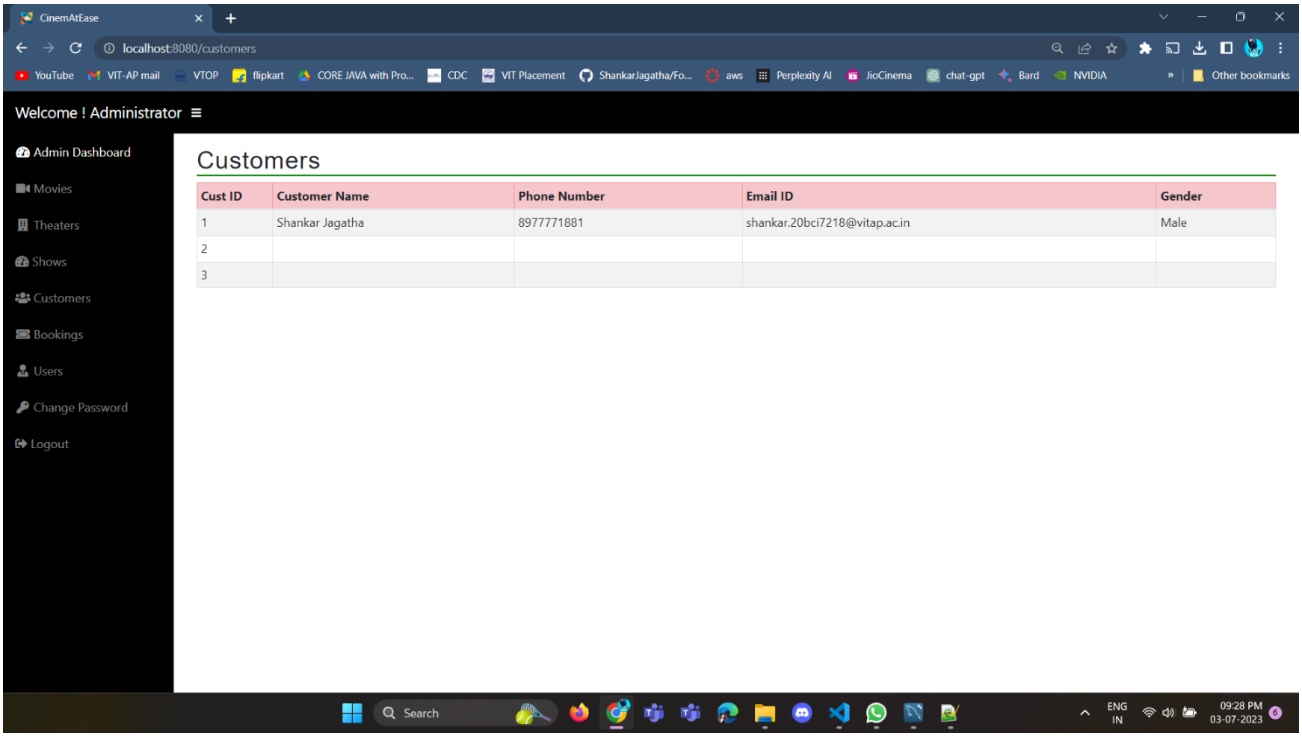
6.8 – ADDING AND DISPLAY SHOW TIMINGS :



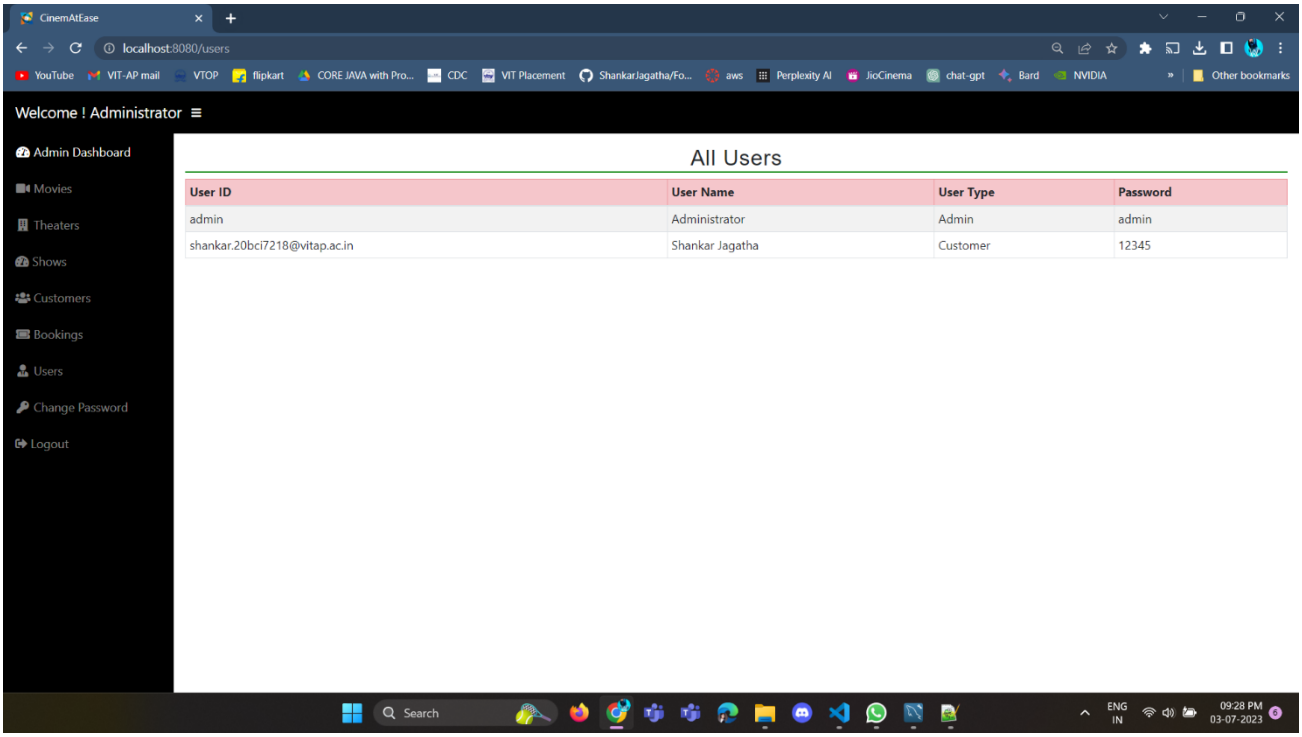
6.9 – ALL USER BOOKINGS PAGE:



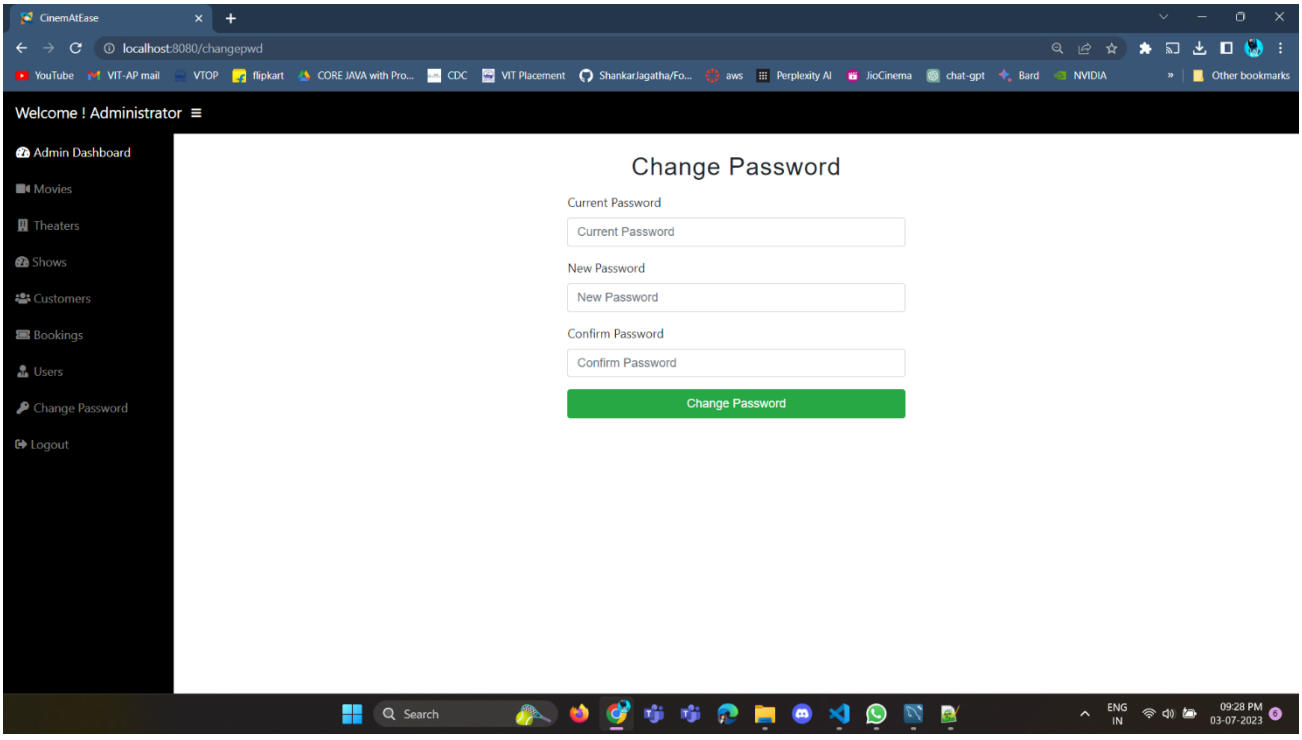
6.10 – ALL CUSTOMERS PAGE:



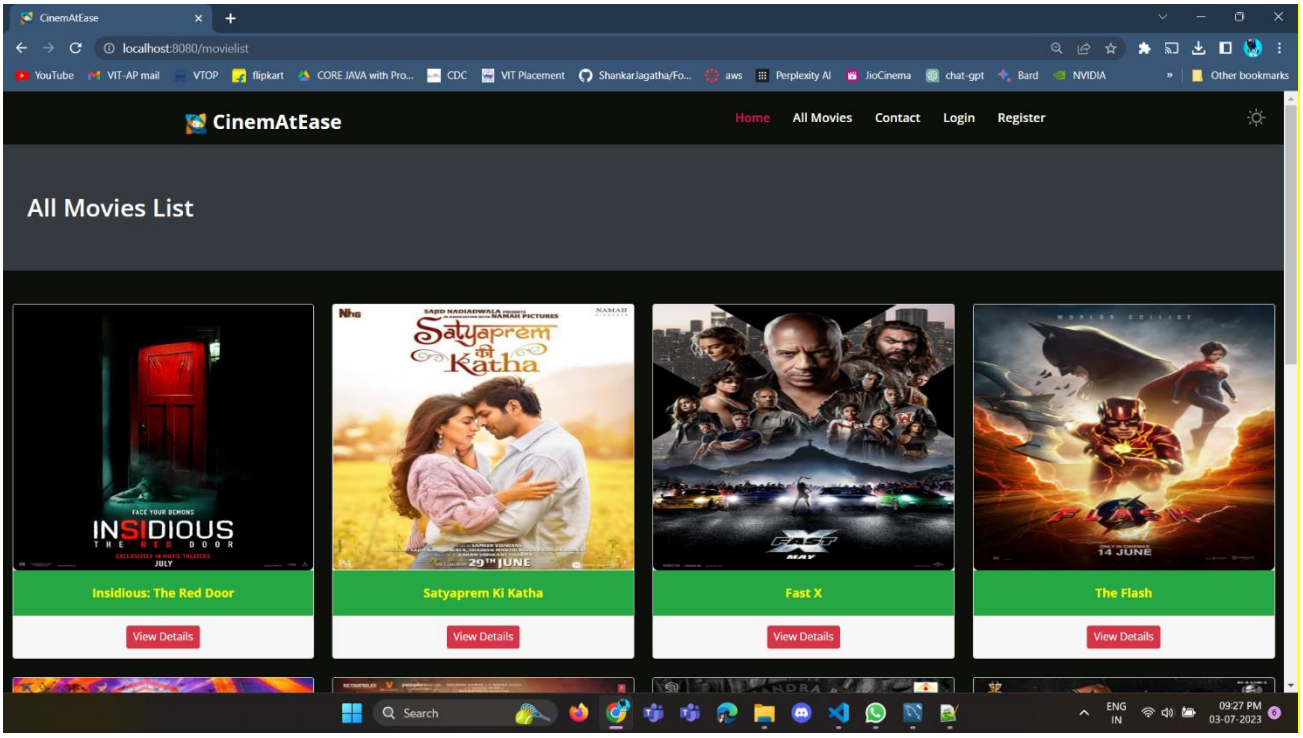
6.11 – ALL USERS PAGE:



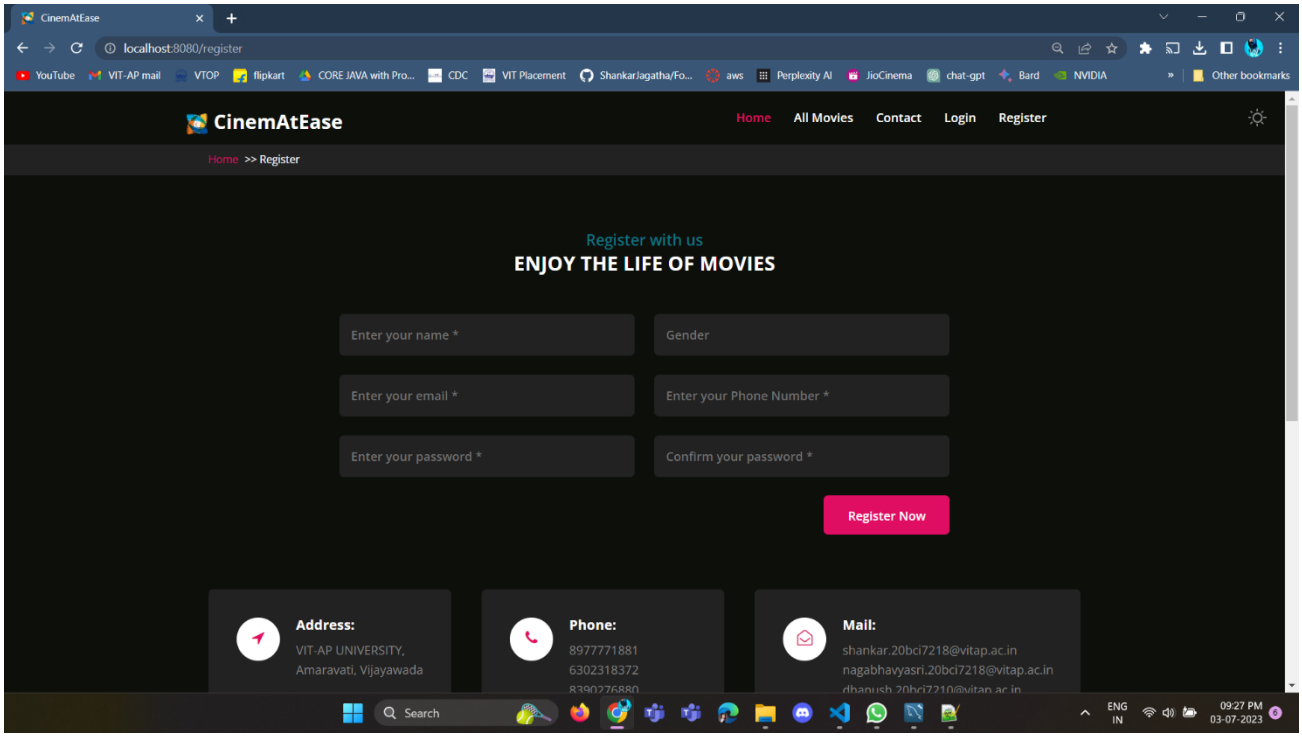
6.12 – CHANGING AND UPDATING PASSWORD PAGE:



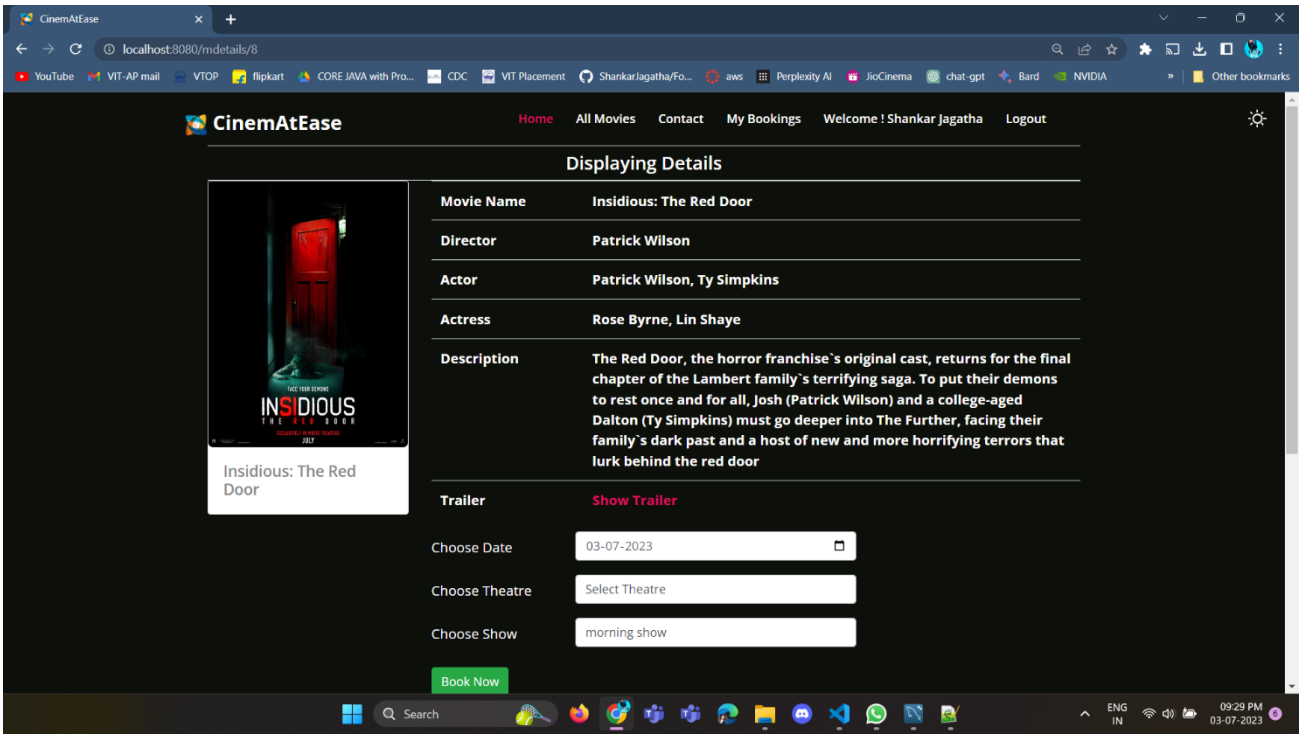
6.13 ALL MOVIES PAGE :



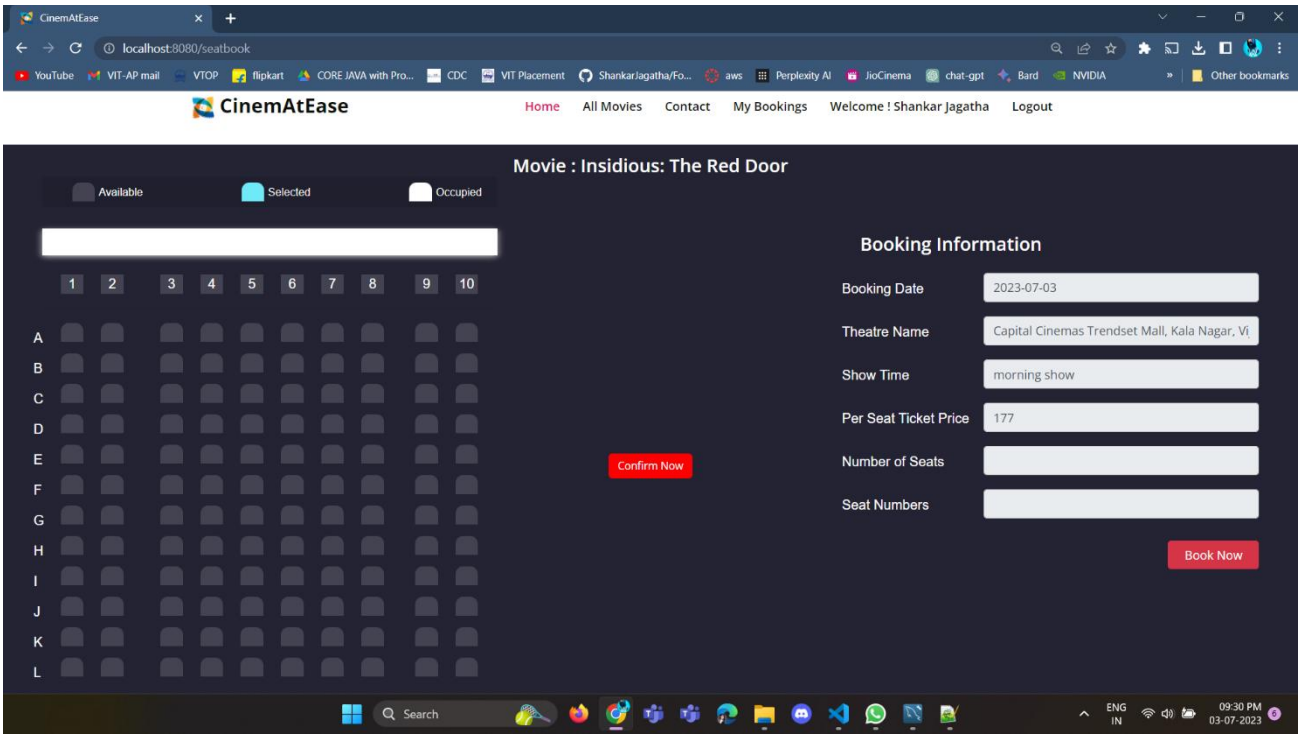
6.14 – REGISTER PAGE:



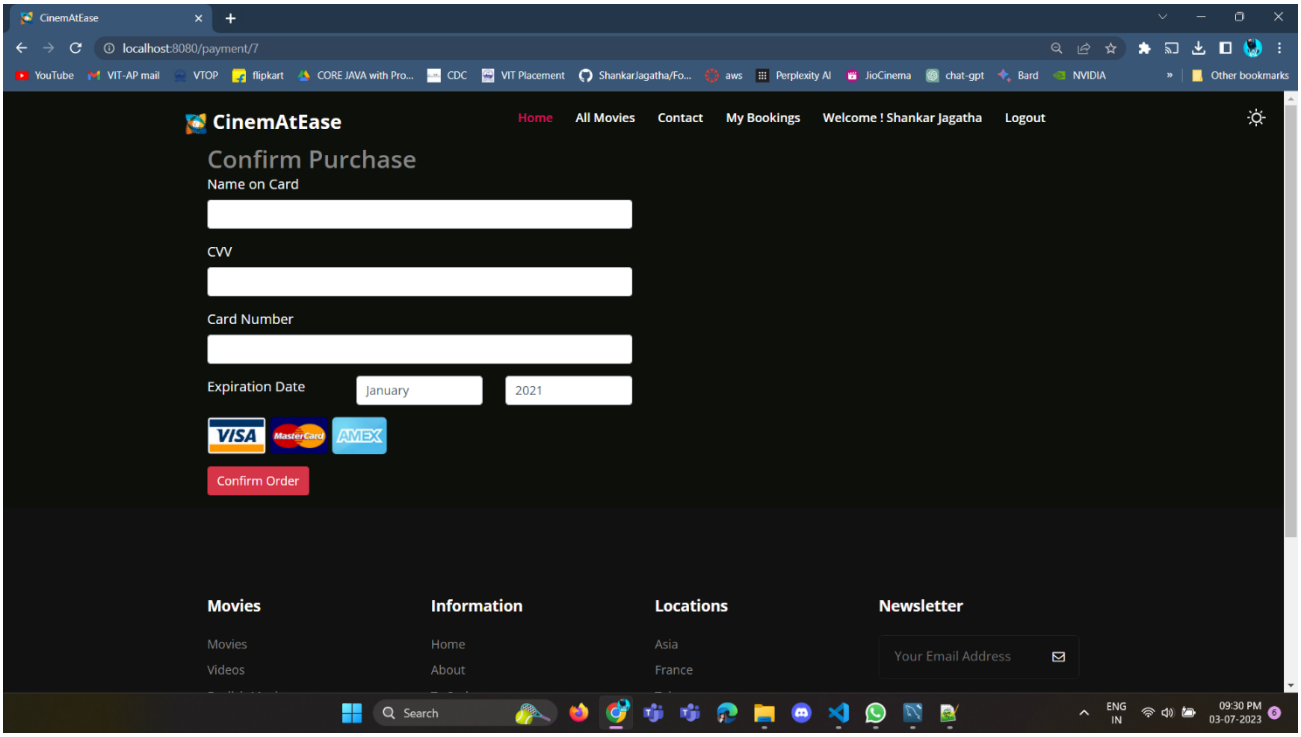
6.15 - MOVIE DETAILS PAGE:



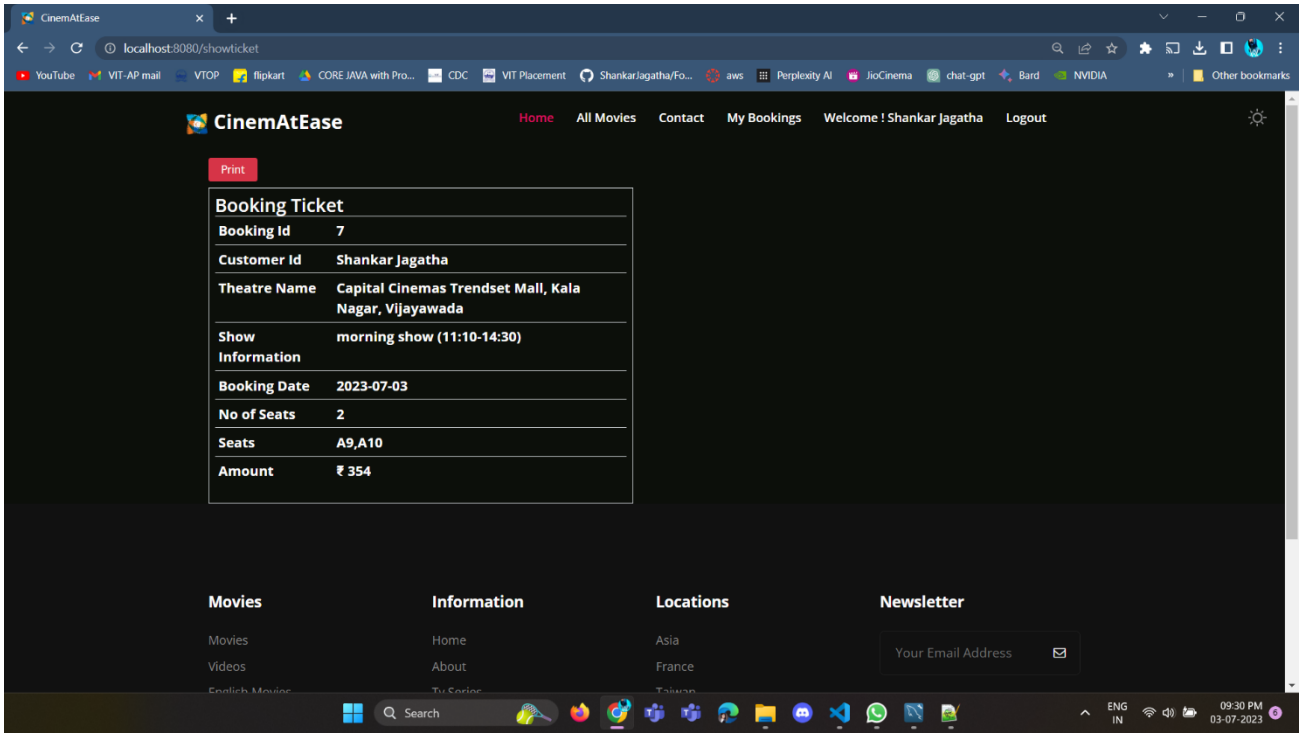
6.16 – SEAT BOOKING PAGE:



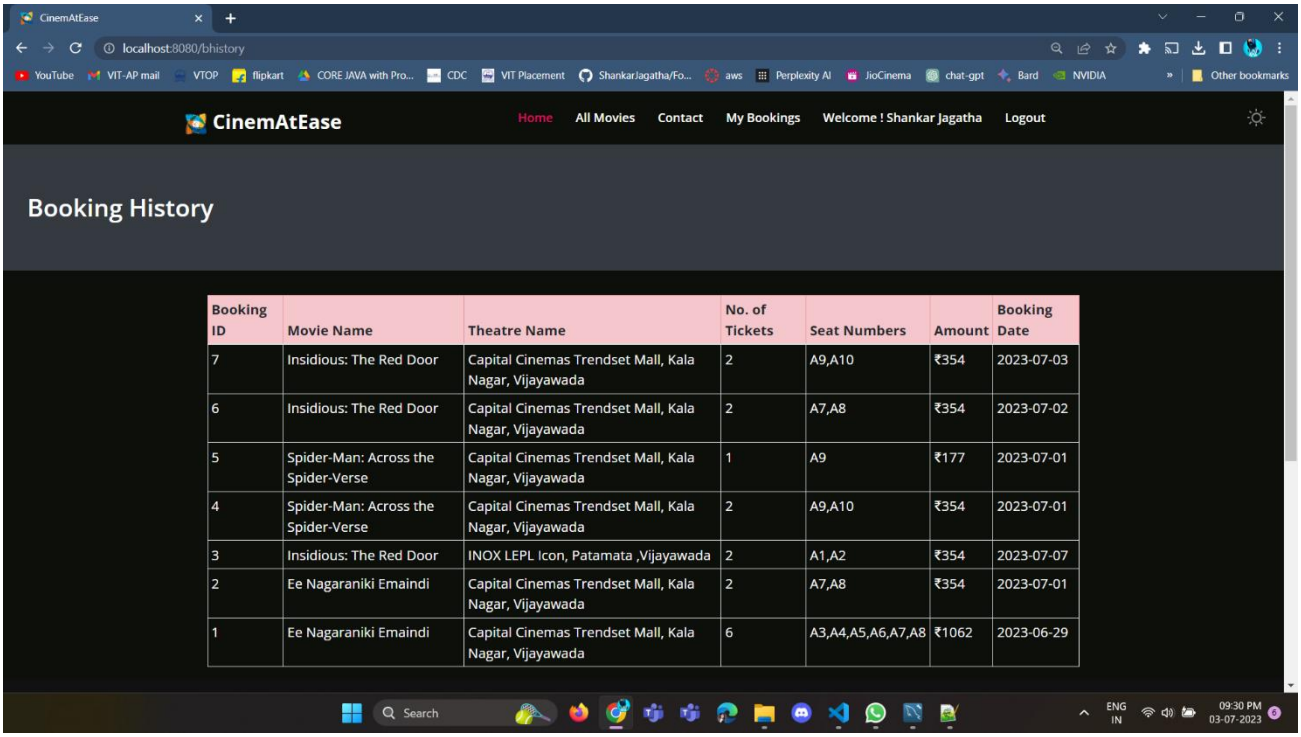
6.17 – PAYMENTS PAGE :



6.18 – TICKET DISPLAY PAGE:



6.19 – MY BOOKINGS PAGE :



7. Conclusion

In conclusion, the CinemAtEase online booking system provides a convenient and user-friendly platform for customers to book movie tickets. With its intuitive interface, customers can easily browse movies, select theaters and show timings, and book tickets. The system also offers additional features such as movie trailer previews and automated email notifications, enhancing the overall movie-going experience. Admins have the ability to manage theaters, shows, and movies, ensuring the system stays up-to-date and relevant.

8. Final Scope

The final scope of the CinemAtEase project includes the development and deployment of a fully functional online booking system. The system will allow customers to register, browse movies, select theaters and show timings, watch movie trailers, and book tickets. Admins will have the ability to manage theaters, shows, and movies, ensuring the system's data remains accurate and up-to-date.

The system will be developed using the Spring Boot framework with Java as the backend language. The frontend will be designed using HTML, CSS (Bootstrap library), and JavaScript. A MySQL database will be utilized for storing and retrieving data. The system will prioritize usability, availability, efficiency, accuracy, performance, and reliability to provide a seamless user experience.

UML diagrams, including use case diagrams, class diagrams, and sequence diagrams, will be created to assist in system design and development. These diagrams will provide a visual representation of the system's structure and behavior.

The CinemAtEase project aims to meet the needs of both customers and admins, streamlining the movie ticket booking process and improving overall user satisfaction.