

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.

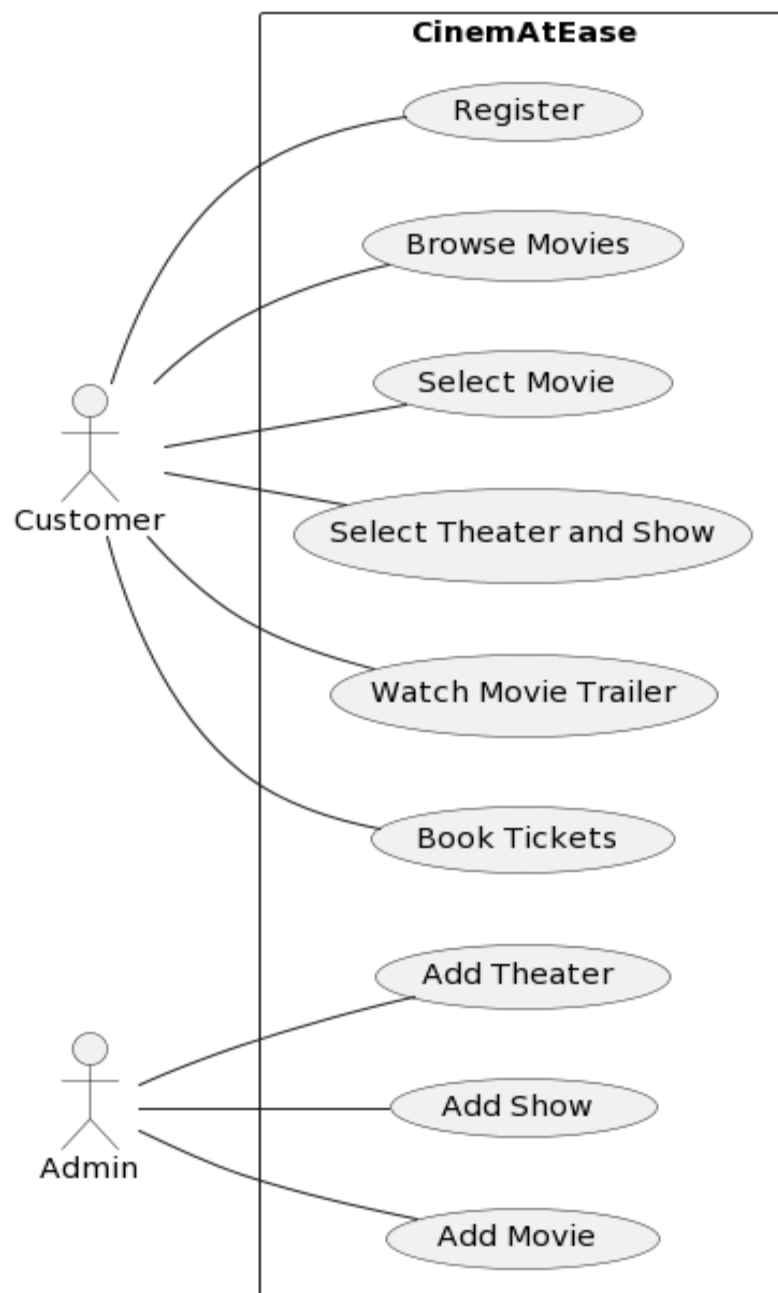
4.6 Reliability Requirement

- **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

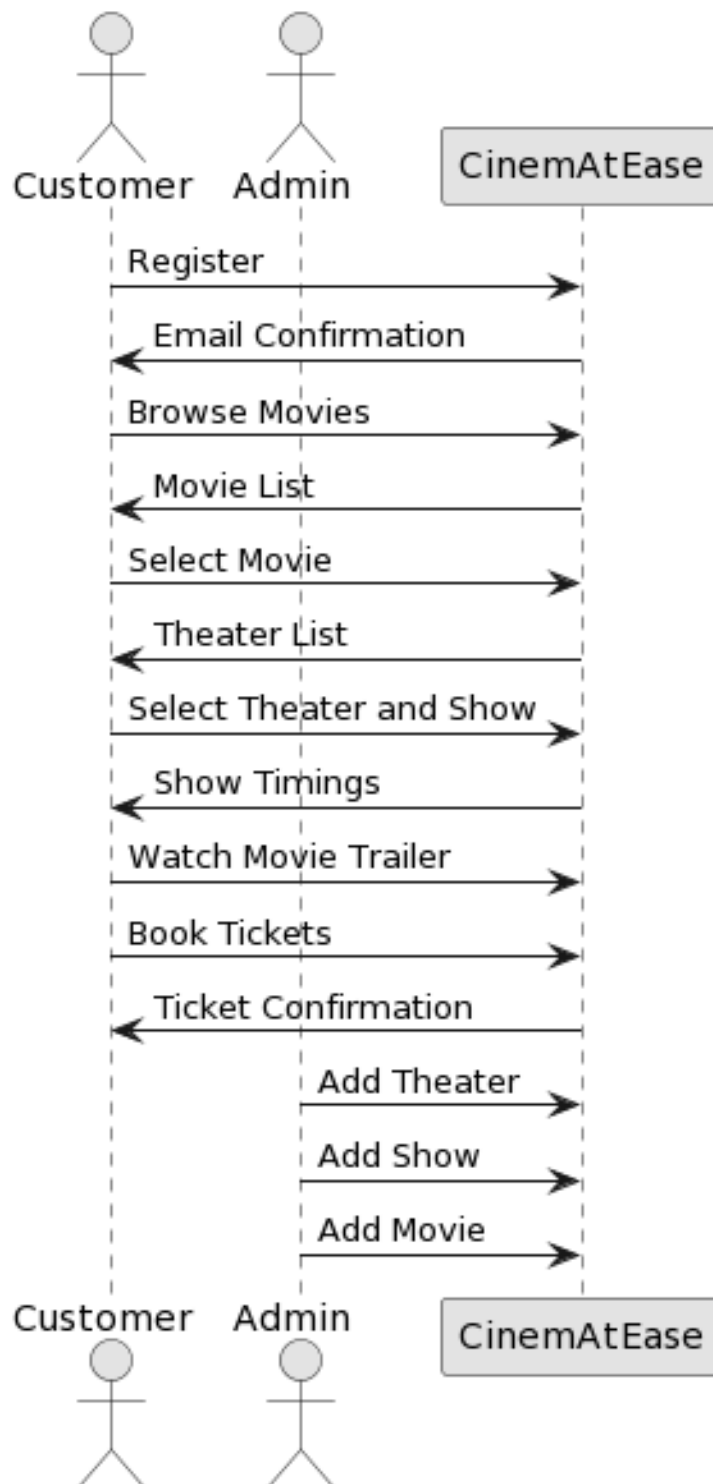
UML diagrams, including use case diagrams, class diagrams, and sequence diagrams, will be created during the system design and development phase. These diagrams will provide a visual representation of the system's structure and behavior.

5.1 USE CASE DIAGRAM



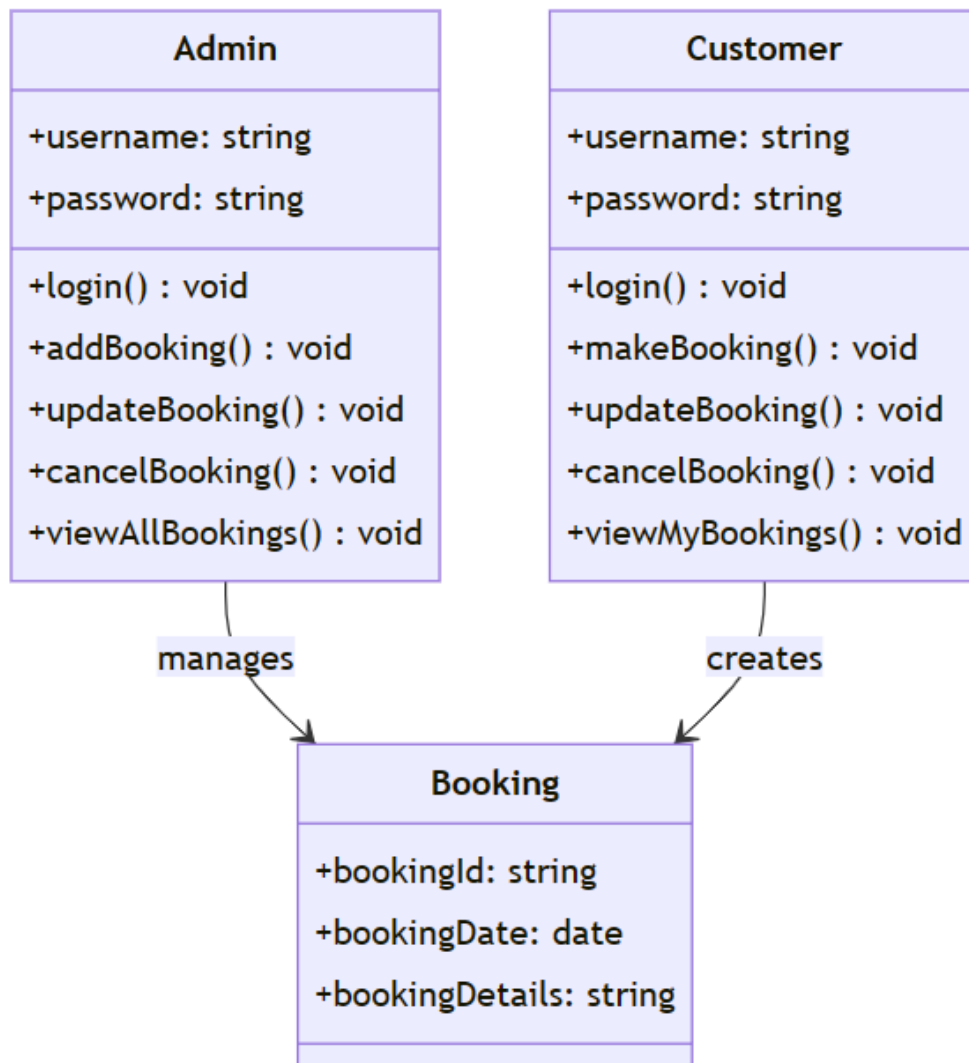
As you can see, we have mainly two actors Librarian and Customer and also, we have listed the use cases of both of them.

5.2 SEQUENCE DIAGRAM

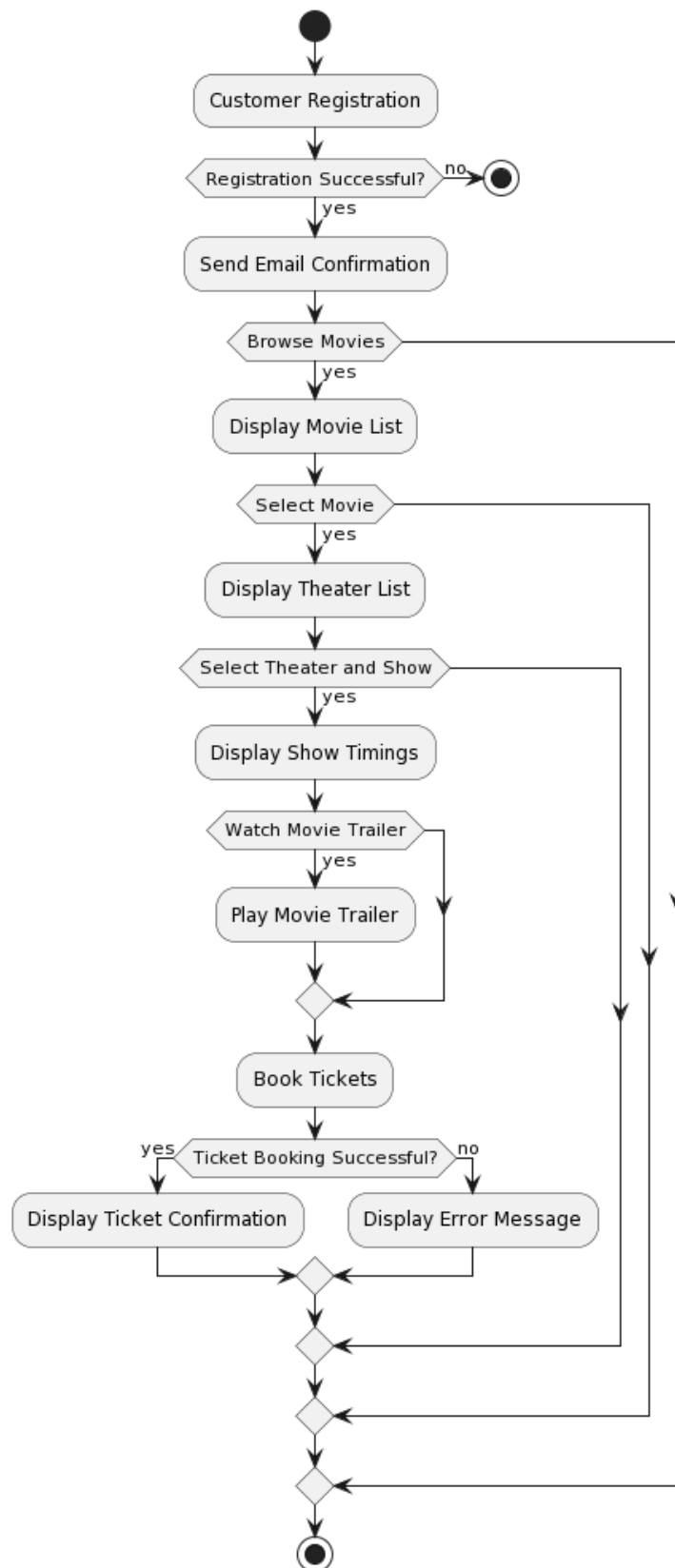


Here we have the sequence diagram, we start from the single task which is “Creating an account” which is common for both librarian and customer and then we can login and do many other tasks.

5.3 CLASS DIAGRAM



5.4 ACTIVITY DIAGRAM



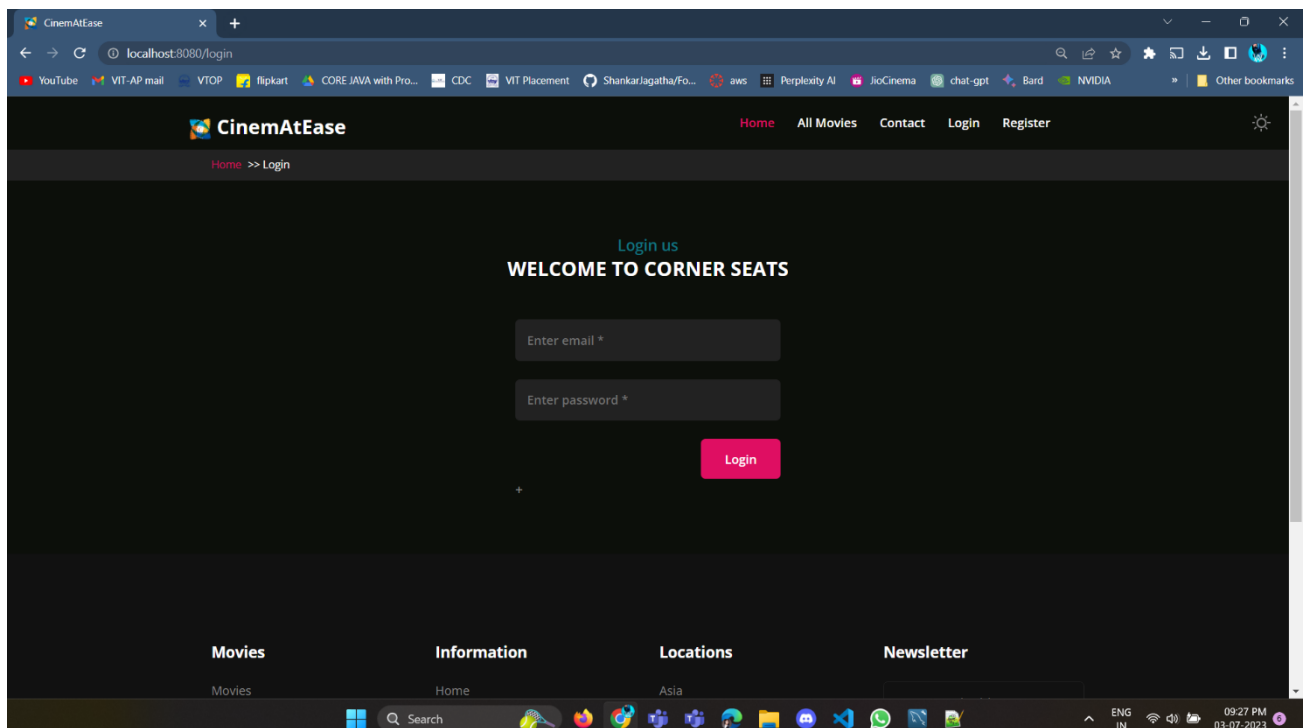
Here we have the activity diagram for both customer and the librarian.

6.IMPLEMENTAION OF THE SOFTWARE

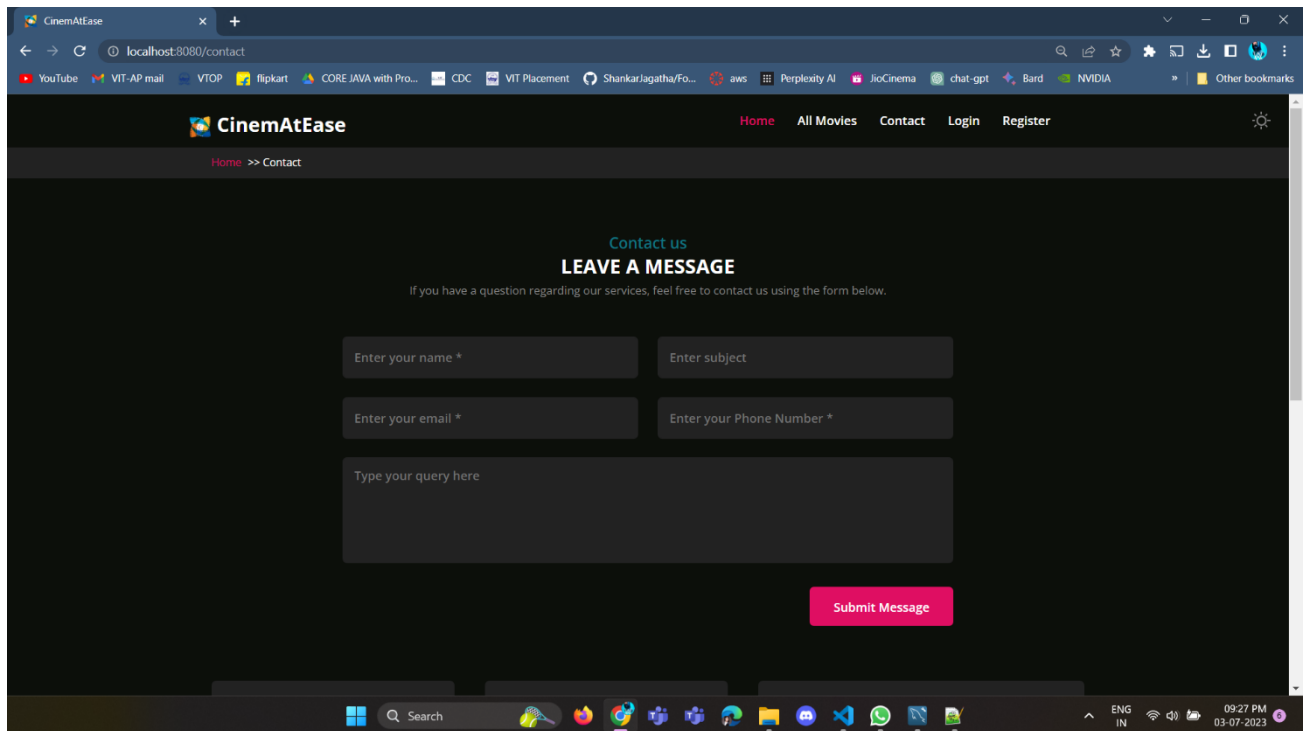
6.1 - HOME PAGE:



6.2 - LOGIN PAGE:

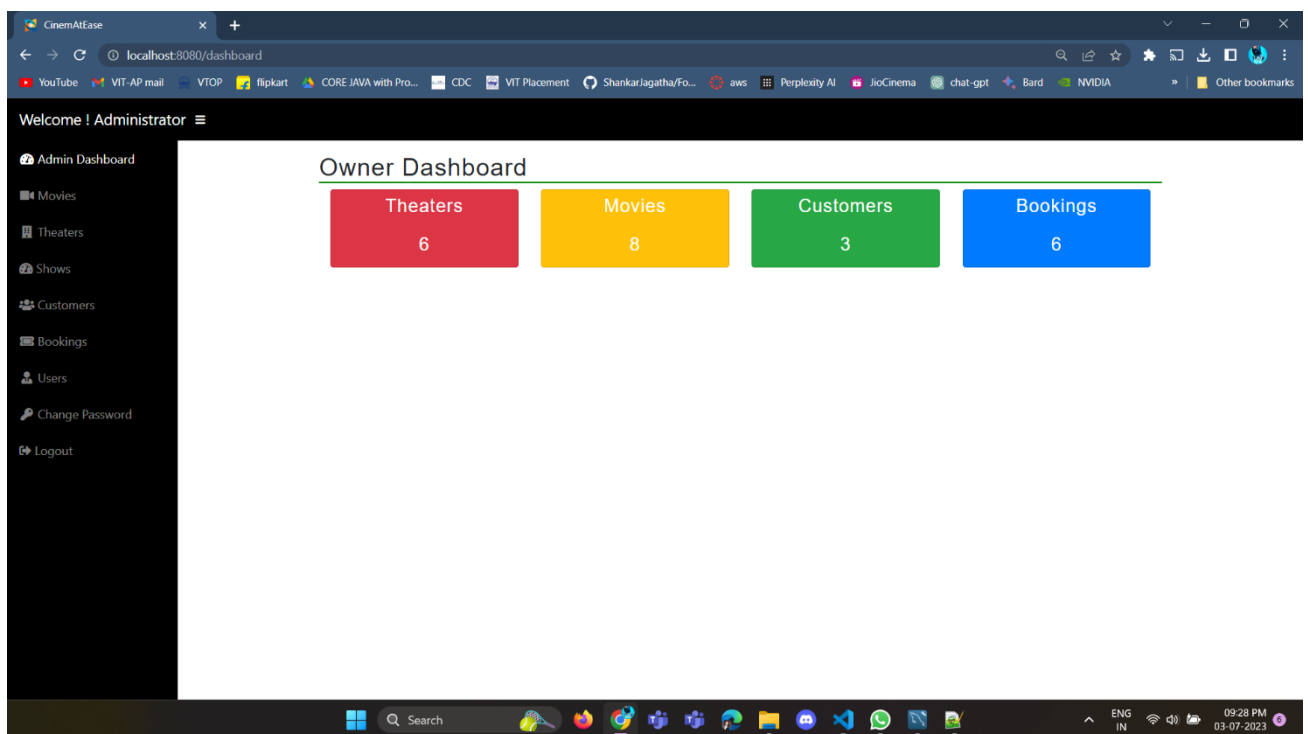


6.3 – CONTACT US PAGE:



The screenshot shows a web browser window with the URL `localhost:8080/contact`. The page has a dark theme and a navigation bar with links: Home, All Movies, Contact, Login, and Register. Below the navigation bar, there is a breadcrumb trail: Home >> Contact. The main content area is titled "Contact us" and "LEAVE A MESSAGE". It includes a subtext: "If you have a question regarding our services, feel free to contact us using the form below." The form consists of four input fields: "Enter your name *", "Enter subject", "Enter your email *", and "Enter your Phone Number *". Below these fields is a large text area labeled "Type your query here". A pink "Submit Message" button is located at the bottom right of the form. The Windows taskbar at the bottom shows the time as 09:27 PM on 03-07-2023.

6.4 – ADMIN DASHBOARD PAGE:



The screenshot shows a web browser window with the URL `localhost:8080/dashboard`. The page has a dark theme and a navigation bar with links: Home, All Movies, Contact, Login, and Register. Below the navigation bar, there is a breadcrumb trail: Home >> Contact. The main content area is titled "Owner Dashboard". It features a sidebar on the left with the following menu items: Admin Dashboard, Movies, Theaters, Shows, Customers, Bookings, Users, Change Password, and Logout. The main content area displays four colored boxes representing different categories: Theaters (6), Movies (8), Customers (3), and Bookings (6). The Windows taskbar at the bottom shows the time as 09:28 PM on 03-07-2023.

6.5 – DISPLAYING CURRENT MOVIES PAGE:

Welcome ! Administrator

Admin Dashboard

- Movies
- Theaters
- Shows
- Customers
- Bookings
- Users
- Change Password
- Logout

Add New Movie

All Movies

Movie ID	Movie Name	Release Date	Director	Actor	Actress	Details
8	Insidious: The Red Door	2023-07-06	Patrick Wilson	Patrick Wilson, Ty Simpkins	Rose Byrne, Lin Shaye	Details Edit
7	Satyaprem Ki Katha	2023-06-29	Sameer Vidwans	Kartik Aaryan	Kiara Advani	Details Edit
6	Fast X	2023-06-19	Louis Leterrier	Vin Diesel, Tyrese Gibson, Ludacris, John Cena	Michelle Rodriguez, Nathalie Emmanuel, Jordana Brewster	Details Edit
5	The Flash	2023-06-15	Andrés Muschietti	Ezra Miller	Sasha Calle	Details Edit
4	Spider-Man: Across the Spider-Verse	2023-06-02	Joaquim Dos Santos, Kemp Powers, Justin K. Thompson	Shameik Moore, Oscar Isaac	Hailee Steinfeld	Details Edit
3	Adipurush	2023-06-16	Om Raut	Prabhas, Saif Ali Khan	Kriti Sanon	Details Edit
2	Spy	2023-06-29	Garry BH	Nikhil Siddharth, Abhinav Gomatam	Iswarya Menon, Sanya Thakur	Details Edit
1	Ee Nagarani Emaindi	2023-06-29	Tharun Bhascker	Vishwak Sen, Sushanth Reddy, Abhinav Gomatam, Venkatesh Kakamamu	Anisha Ambrose, Simran Choudhary	Details Edit

6.6 - ADD MOVIES PAGE:

Welcome ! Administrator

Admin Dashboard

- Movies
- Theaters
- Shows
- Customers
- Bookings
- Users
- Change Password
- Logout

Add New Movie

Movie Name:

Release Date:

Director:

Actors:

Actress:

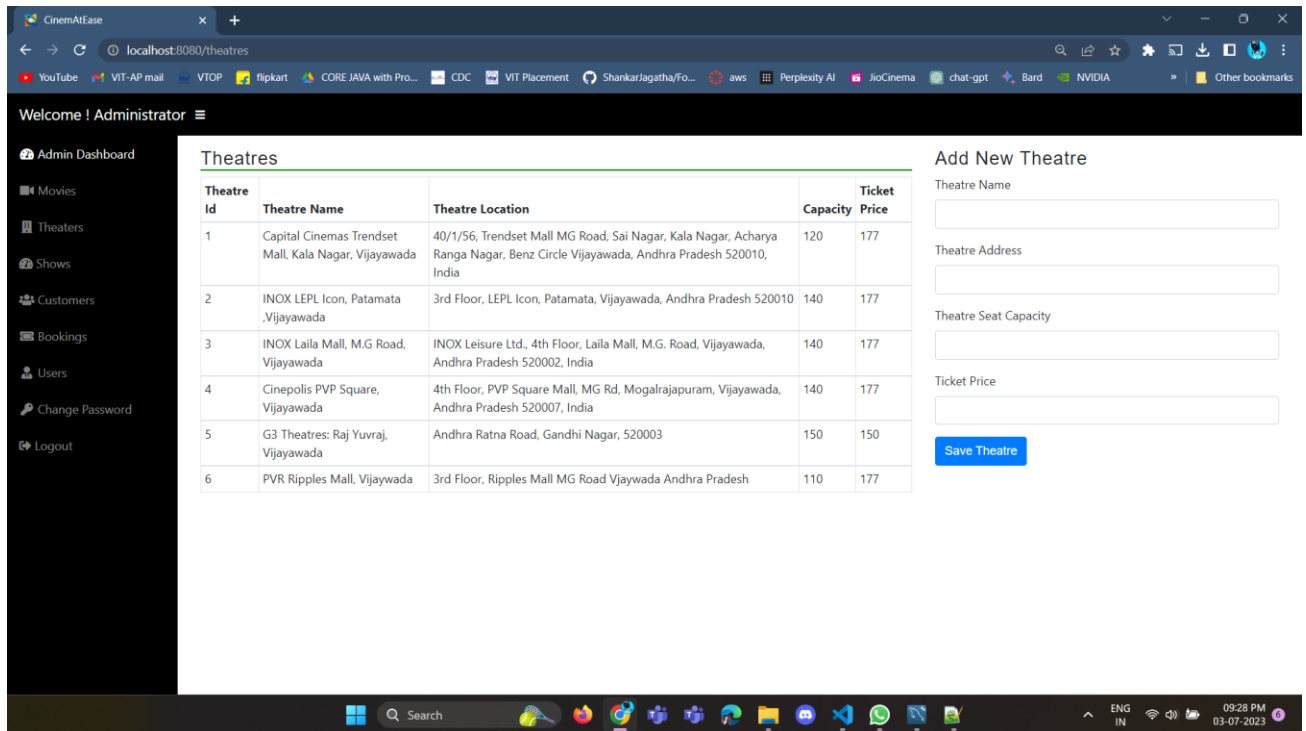
Trailer Link:

Photo: No file chosen

Description:

Banner: No file chosen

6.7 – DISPLAY AND ADD THEATRE PAGE:



The screenshot shows the 'Theatres' page of the CinemAEase application. The page has a dark sidebar with navigation links: Admin Dashboard, Movies, Theaters, Shows, Customers, Bookings, Users, Change Password, and Logout. The main content area is titled 'Theatres' and contains a table with 6 rows of theatre information. To the right of the table is a form titled 'Add New Theatre' with fields for Theatre Name, Theatre Address, Theatre Seat Capacity, and Ticket Price, and a 'Save Theatre' button.

Theatre Id	Theatre Name	Theatre Location	Capacity	Ticket Price
1	Capital Cinemas Trendset Mall, Kala Nagar, Vijayawada	40/1/56, Trendset Mall MG Road, Sai Nagar, Kala Nagar, Acharya Ranga Nagar, Benz Circle Vijayawada, Andhra Pradesh 520010, India	120	177
2	INOX LEPL Icon, Patamata, Vijayawada	3rd Floor, LEPL Icon, Patamata, Vijayawada, Andhra Pradesh 520010	140	177
3	INOX Laila Mall, M.G Road, Vijayawada	INOX Leisure Ltd., 4th Floor, Laila Mall, M.G. Road, Vijayawada, Andhra Pradesh 520002, India	140	177
4	Cinepolis PVP Square, Vijayawada	4th Floor, PVP Square Mall, MG Rd, Mogalrajapuram, Vijayawada, Andhra Pradesh 520007, India	140	177
5	G3 Theatres: Raj Yuvraj, Vijayawada	Andhra Ratna Road, Gandhi Nagar, 520003	150	150
6	PVR Ripples Mall, Vijaywada	3rd Floor, Ripples Mall MG Road Vjaywada Andhra Pradesh	110	177

Add New Theatre

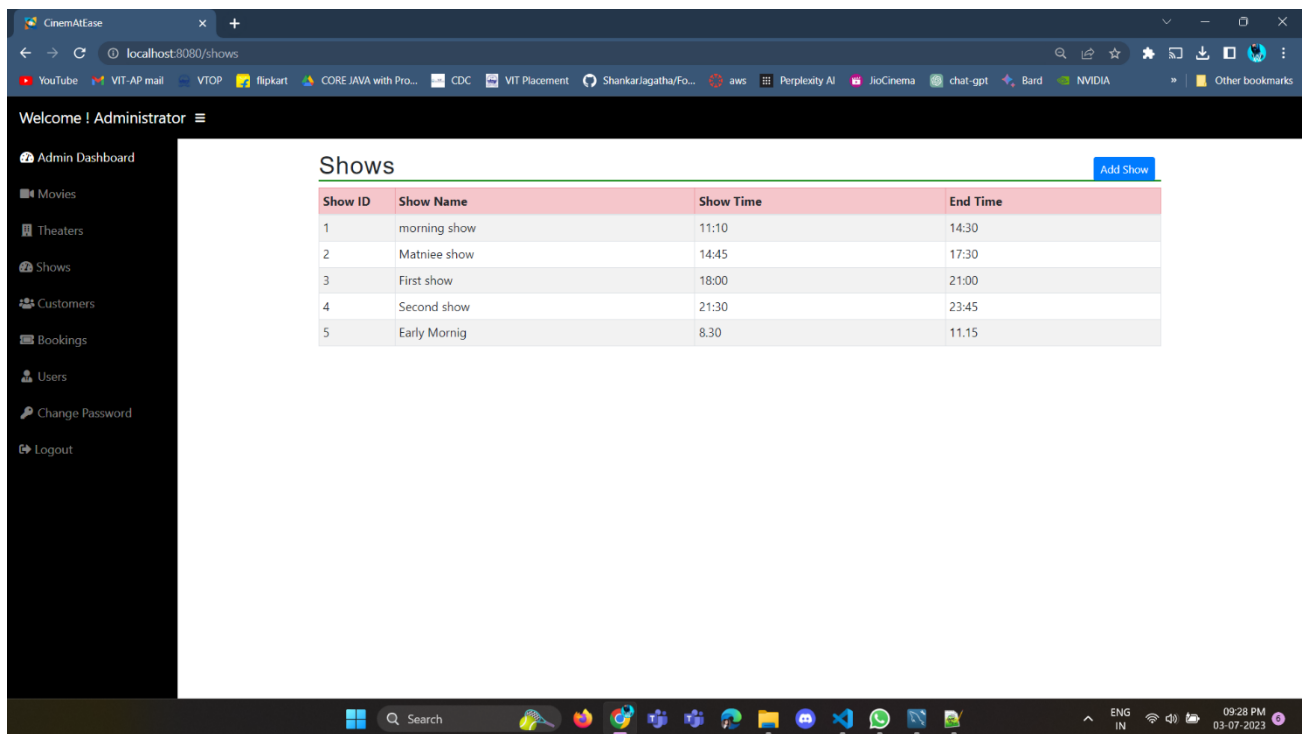
Theatre Name:

Theatre Address:

Theatre Seat Capacity:

Ticket Price:

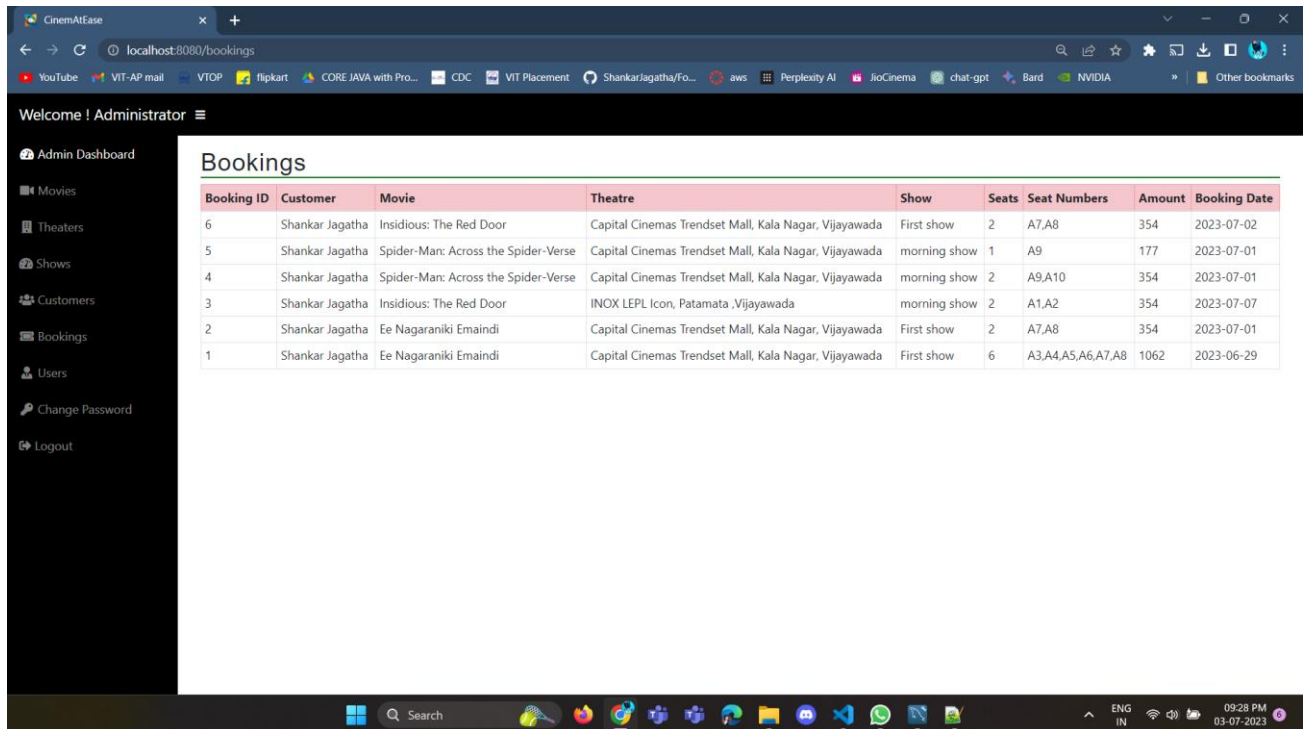
6.8 – ADDING AND DISPLAY SHOW TIMINGS :



The screenshot shows the 'Shows' page of the CinemAEase application. The page has a dark sidebar with navigation links: Admin Dashboard, Movies, Theaters, Shows, Customers, Bookings, Users, Change Password, and Logout. The main content area is titled 'Shows' and contains a table with 5 rows of show information. To the right of the table is an 'Add Show' button.

Show ID	Show Name	Show Time	End Time
1	morning show	11:10	14:30
2	Matinee show	14:45	17:30
3	First show	18:00	21:00
4	Second show	21:30	23:45
5	Early Mornig	8:30	11:15

6.9 – ALL USER BOOKINGS PAGE:



Welcome ! Administrator

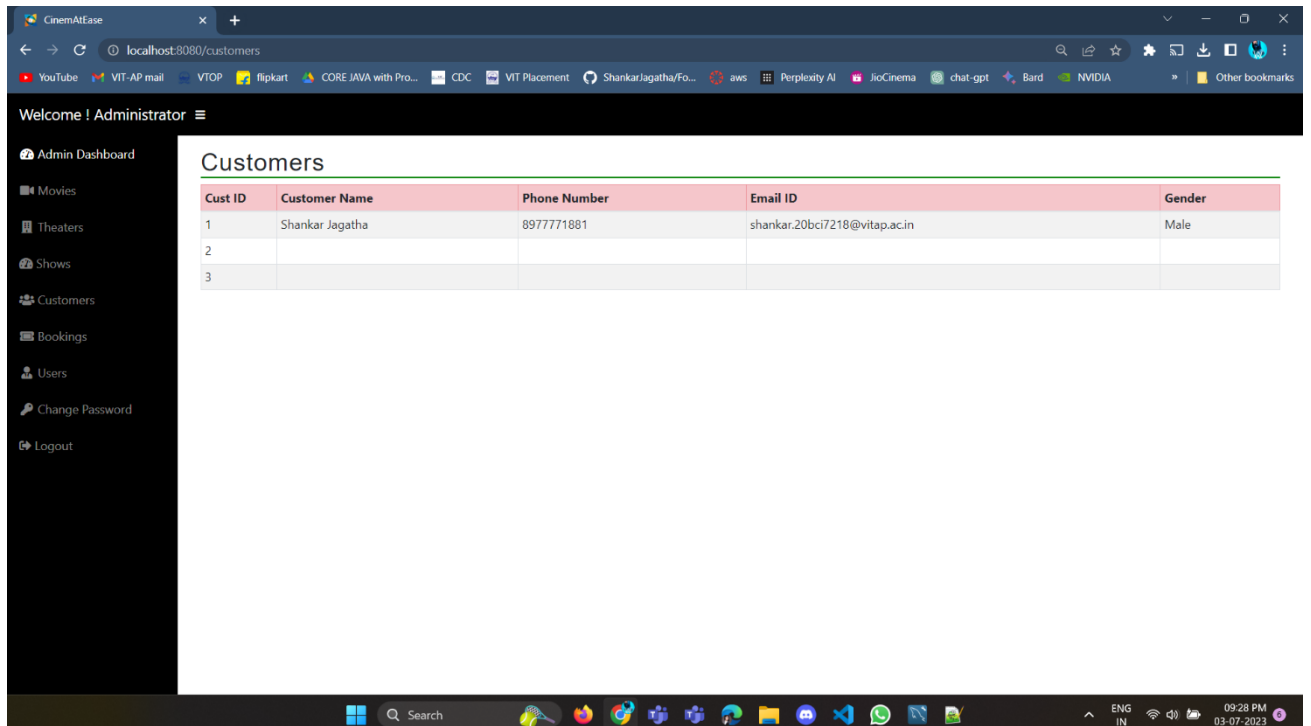
Admin Dashboard

- Movies
- Theaters
- Shows
- Customers
- Bookings
- Users
- Change Password
- Logout

Bookings

Booking ID	Customer	Movie	Theatre	Show	Seats	Seat Numbers	Amount	Booking Date
6	Shankar Jagatha	Insidious: The Red Door	Capital Cinemas Trendset Mall, Kala Nagar, Vijayawada	First show	2	A7,A8	354	2023-07-02
5	Shankar Jagatha	Spider-Man: Across the Spider-Verse	Capital Cinemas Trendset Mall, Kala Nagar, Vijayawada	morning show	1	A9	177	2023-07-01
4	Shankar Jagatha	Spider-Man: Across the Spider-Verse	Capital Cinemas Trendset Mall, Kala Nagar, Vijayawada	morning show	2	A9,A10	354	2023-07-01
3	Shankar Jagatha	Insidious: The Red Door	INOX LEPL Icon, Patamata ,Vijayawada	morning show	2	A1,A2	354	2023-07-07
2	Shankar Jagatha	Ee Nagarani Emaindi	Capital Cinemas Trendset Mall, Kala Nagar, Vijayawada	First show	2	A7,A8	354	2023-07-01
1	Shankar Jagatha	Ee Nagarani Emaindi	Capital Cinemas Trendset Mall, Kala Nagar, Vijayawada	First show	6	A3,A4,A5,A6,A7,A8	1062	2023-06-29

6.10 – ALL CUSTOMERS PAGE:



Welcome ! Administrator

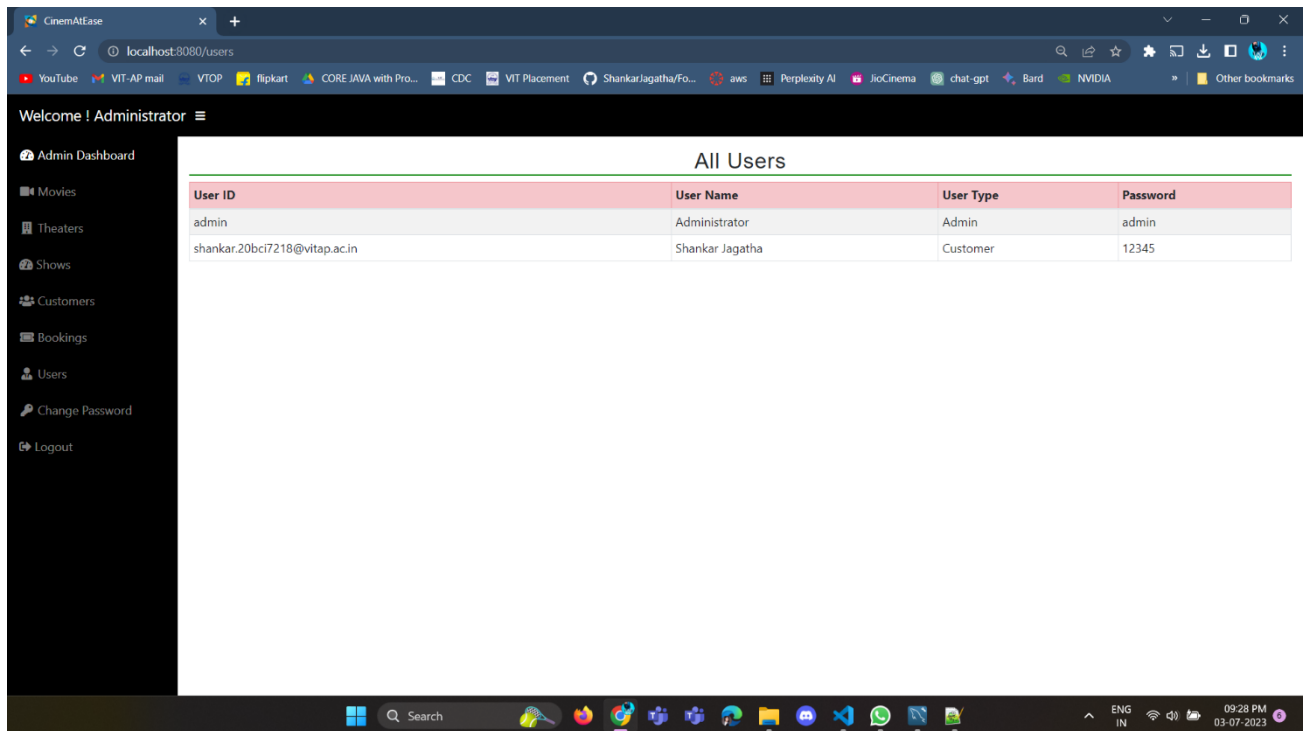
Admin Dashboard

- Movies
- Theaters
- Shows
- Customers
- Bookings
- Users
- Change Password
- Logout

Customers

Cust ID	Customer Name	Phone Number	Email ID	Gender
1	Shankar Jagatha	8977771881	shankar.20bci7218@vitap.ac.in	Male
2				
3				

6.11 – ALL USERS PAGE:



Welcome ! Administrator

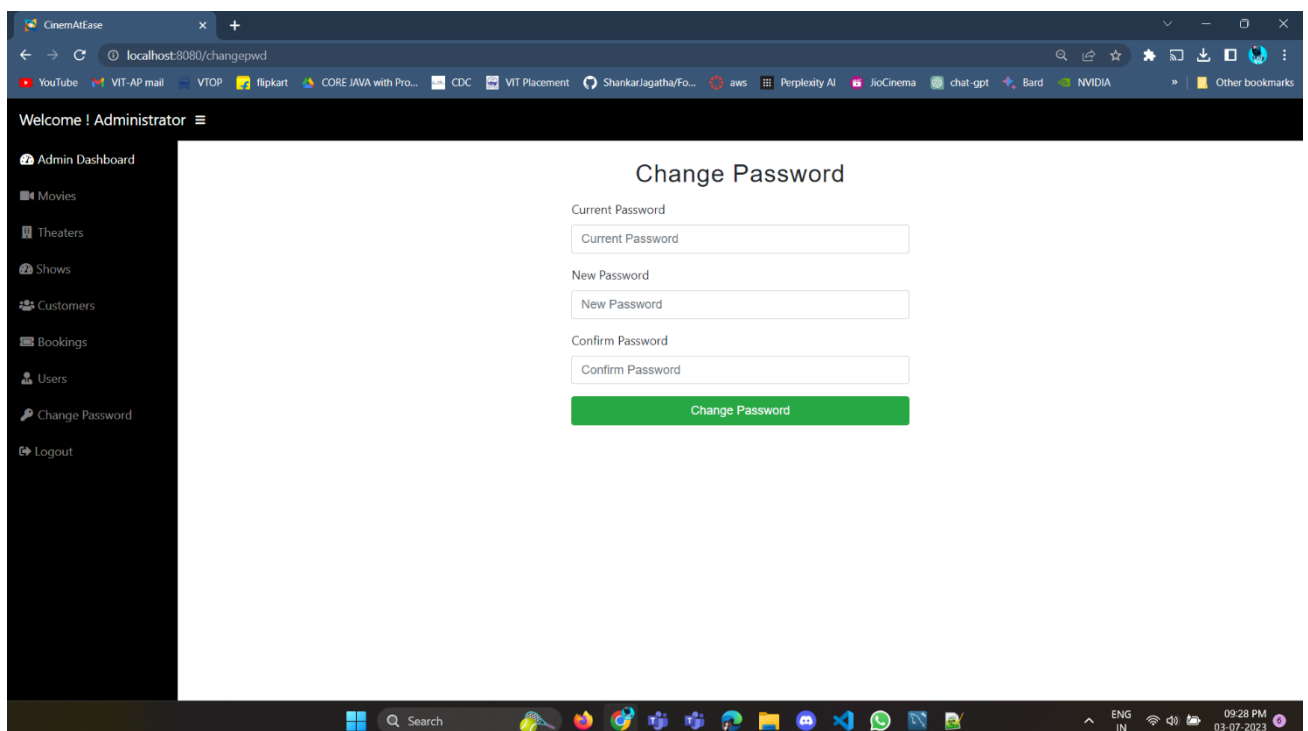
Admin Dashboard

- Movies
- Theaters
- Shows
- Customers
- Bookings
- Users
- Change Password
- Logout

All Users

User ID	User Name	User Type	Password
admin	Administrator	Admin	admin
shankar.20bc17218@vitap.ac.in	Shankar Jagatha	Customer	12345

6.12 – CHANGING AND UPDATING PASSWORD PAGE:



Welcome ! Administrator

Admin Dashboard

- Movies
- Theaters
- Shows
- Customers
- Bookings
- Users
- Change Password
- Logout

Change Password

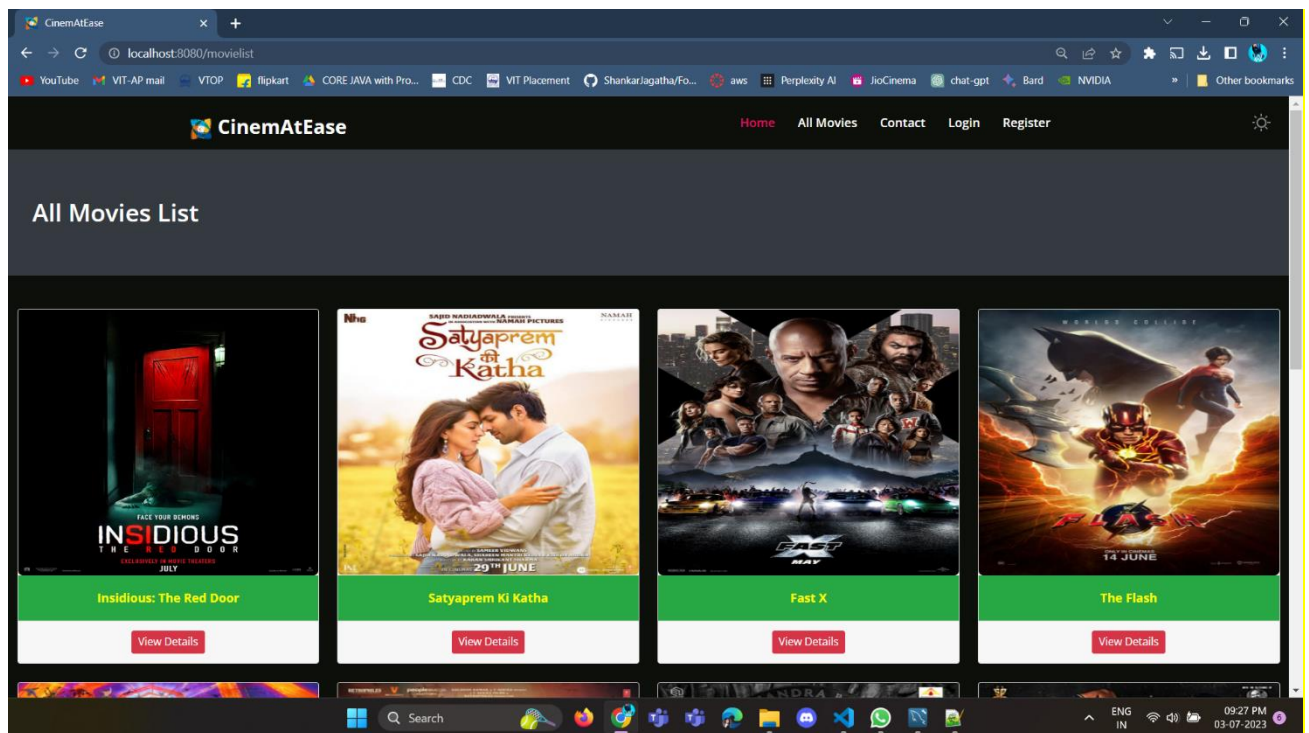
Current Password

New Password

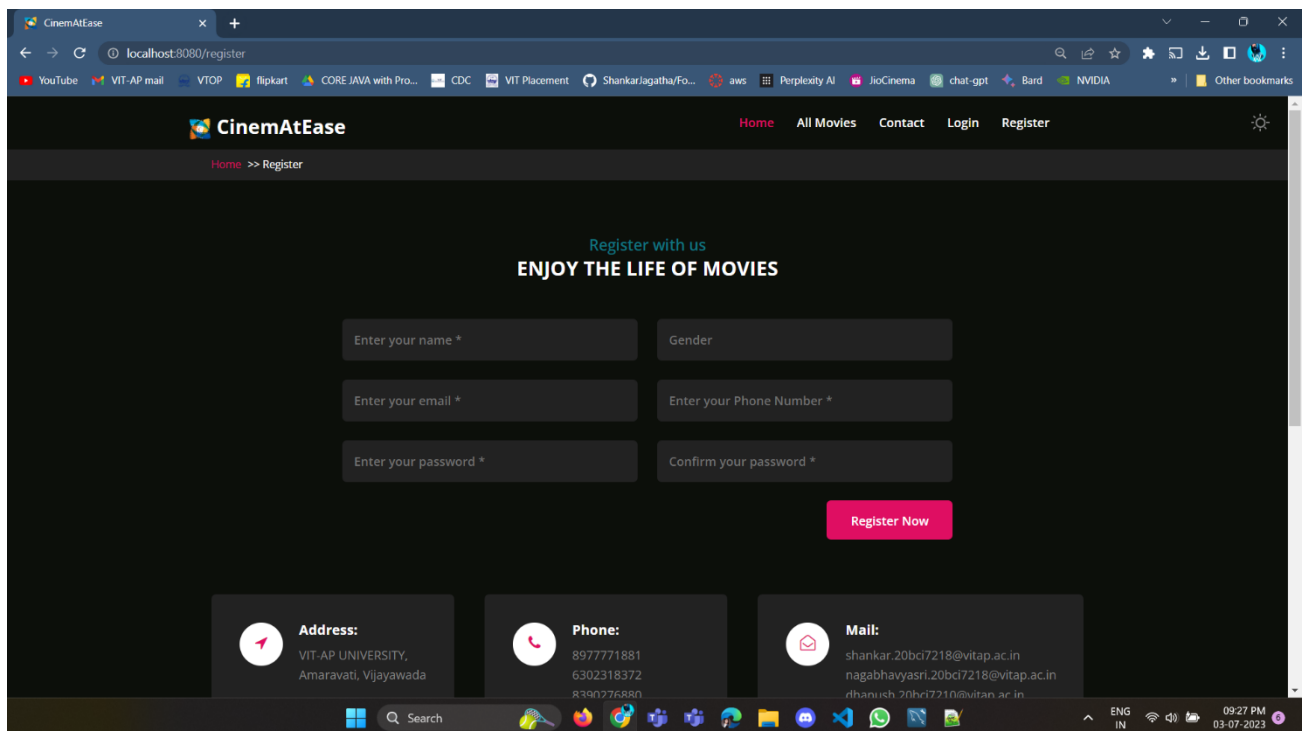
Confirm Password

Change Password

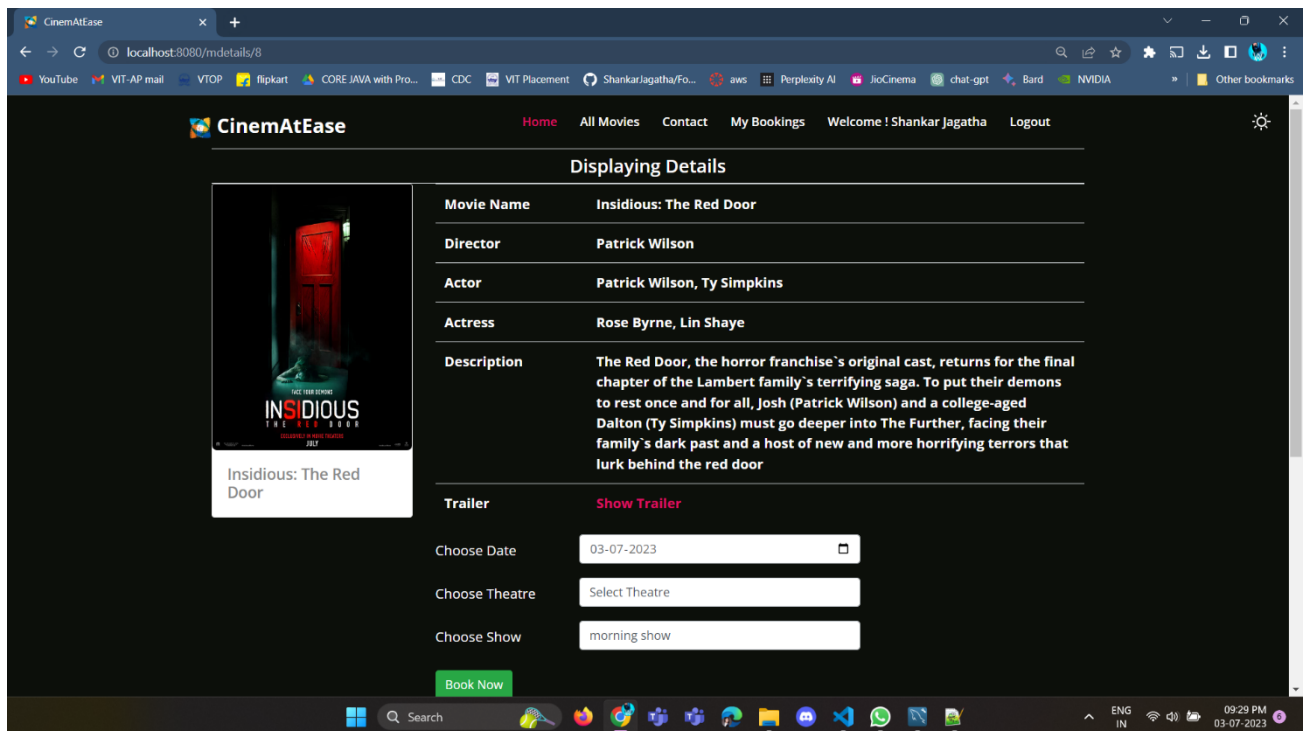
6.13 ALL MOVIES PAGE :



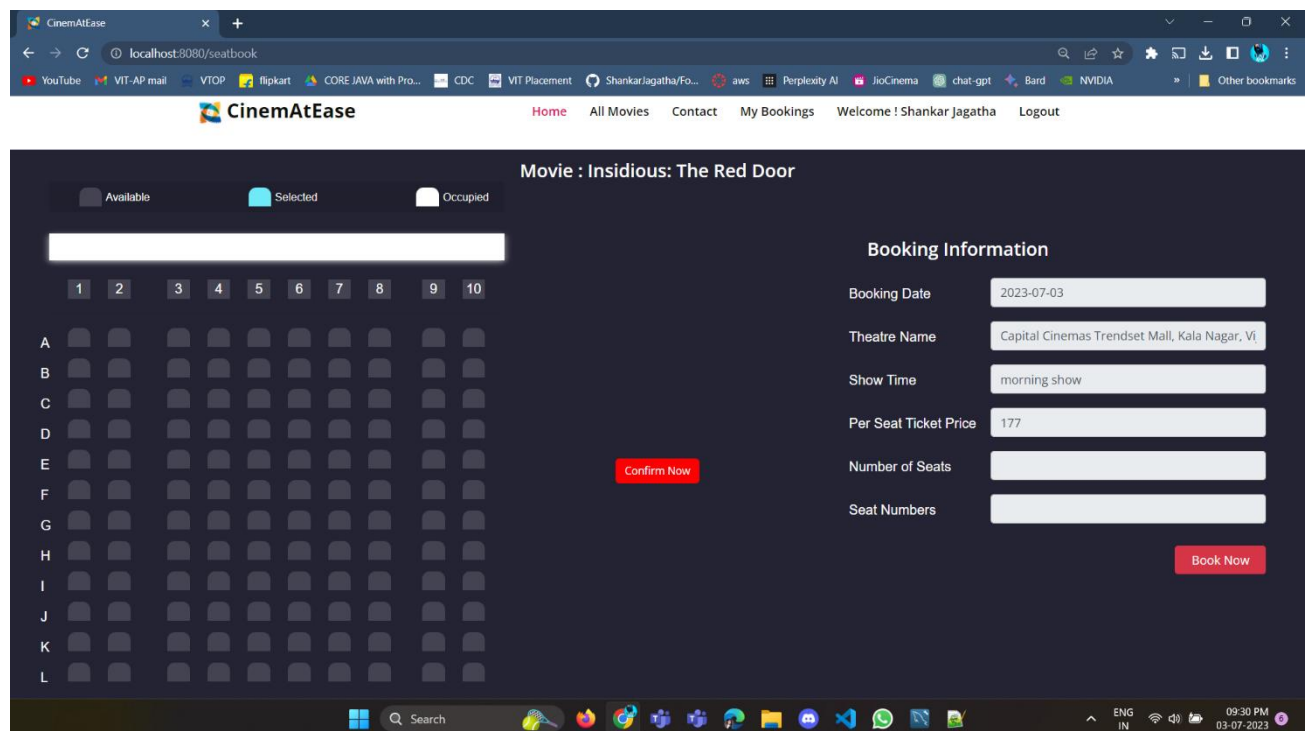
6.14 – REGISTER PAGE:



6.15 - MOVIE DETAILS PAGE:



6.16 – SEAT BOOKING PAGE:



6.17 – PAYMENTS PAGE :

CinemAtEase

Home All Movies Contact My Bookings Welcome ! Shankar Jagatha Logout

Confirm Purchase

Name on Card

CVV

Card Number

Expiration Date

VISA MasterCard AMEX

Confirm Order

Movies
Movies
Videos

Information
Home
About

Locations
Asia
France

Newsletter
Your Email Address

6.18 – TICKET DISPLAY PAGE:

CinemAtEase

Home All Movies Contact My Bookings Welcome ! Shankar Jagatha Logout

Print

Booking Ticket	
Booking Id	7
Customer Id	Shankar Jagatha
Theatre Name	Capital Cinemas Trendset Mall, Kala Nagar, Vijayawada
Show Information	morning show (11:10-14:30)
Booking Date	2023-07-03
No of Seats	2
Seats	A9,A10
Amount	₹ 354

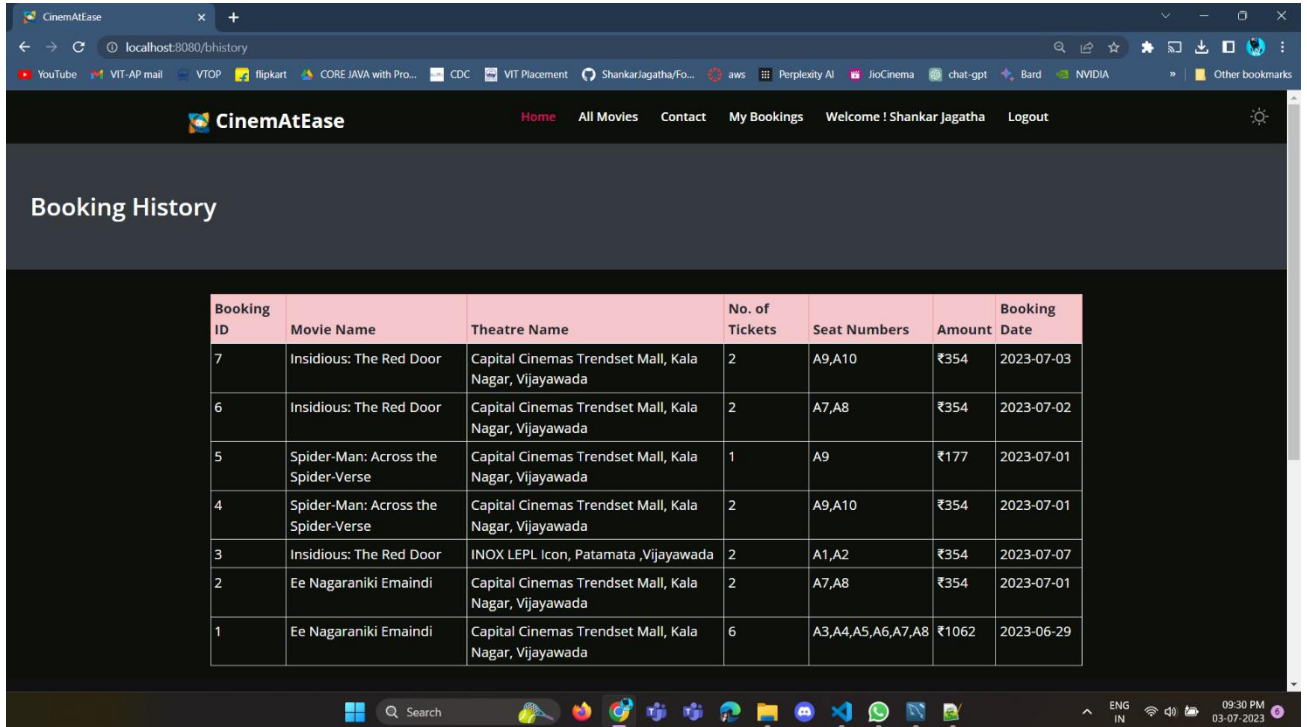
Movies
Movies
Videos

Information
Home
About

Locations
Asia
France

Newsletter
Your Email Address

6.19 – MY BOOKINGS PAGE :



Booking ID	Movie Name	Theatre Name	No. of Tickets	Seat Numbers	Amount	Booking Date
7	Insidious: The Red Door	Capital Cinemas Trendset Mall, Kala Nagar, Vijayawada	2	A9,A10	₹354	2023-07-03
6	Insidious: The Red Door	Capital Cinemas Trendset Mall, Kala Nagar, Vijayawada	2	A7,A8	₹354	2023-07-02
5	Spider-Man: Across the Spider-Verse	Capital Cinemas Trendset Mall, Kala Nagar, Vijayawada	1	A9	₹177	2023-07-01
4	Spider-Man: Across the Spider-Verse	Capital Cinemas Trendset Mall, Kala Nagar, Vijayawada	2	A9,A10	₹354	2023-07-01
3	Insidious: The Red Door	INOX LEPL Icon, Patamata, Vijayawada	2	A1,A2	₹354	2023-07-07
2	Ee Nagarani Emaindi	Capital Cinemas Trendset Mall, Kala Nagar, Vijayawada	2	A7,A8	₹354	2023-07-01
1	Ee Nagarani Emaindi	Capital Cinemas Trendset Mall, Kala Nagar, Vijayawada	6	A3,A4,A5,A6,A7,A8	₹1062	2023-06-29

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.