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Web Based Online Movie Ticket Booking System Using Java

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ABSTRACT: This software project is a traditional movie ticket booking system with some added functionality. This system is built for fast data processing and bill generation for theatre customers. The main purpose of our online ticket booking system is to provide an alternate and convenient way for a customer to buy cinema tickets. It is an automatic system. After the data has been fed into the database, the staff does not need to do anything with the order once it is received through the system. a goal to develop a backend system for a movie ticket booking platform that allows users to search for movies, book tickets, make payment and view booking history. In this project we book ticket using online movie Ticket reservation system. A ticket when billed is searched from the database and its price is added to the bill based upon the ticket quantity.

KEY WORDS:

- **Online Ticket Booking** – Enables users to book cinema tickets through a digital platform anytime and anywhere.
- **Web-Based Application** – A browser-accessible platform built for seamless movie ticket reservations.
- **DB** – Data Base to store the Movies data
- **Movie Reservation System** – Automates the process of selecting movies, showtimes, and booking seats.
- **JVM** – Java Virtual Machine
- **JSP** – Java Server page
- **CB** – Collective Behaviour
- **RSSS** – Ramp secret sharing scheme
- **JRE** – Java Runtime Environment
- **Secure User Authentication** – Ensures that only verified users can access booking and admin functionalit.

I. INTRODUCTION

The Online Movie Ticket Booking System is designed to provide a convenient and user-friendly alternative for booking cinema tickets. It allows customers to view movie listings, check showtimes, select seats, and make secure payments—all through a web-based platform. Once the booking data is stored in the system, no further manual action is required by the staff, making the process fully automated and efficient.

This system eliminates the need for standing in long queues or relying on third-party agents. It supports real-time updates for seat availability and caters to different user roles: customers for booking, theatre admins for managing schedules, and system admins for overall platform maintenance. With secure login, responsive design, and integrated payment gateways, the platform improves the movie booking experience while reducing operational effort for theatres.

II. LITERATURE REVIEW

Software Implementation of Movie Ticket Booking System Mykola Pasyeka, Andrew Malitchuk . [1]. This paper discusses issues related to developing a distributed online booking system. The basic stages of system development and technological principles that can be used for implementation are considered. There are a number of problems that exist in this subject area and the possible ways to solve them. The ways of providing information

services individually and the means of marketplace are compared. Possible ways of exposing the principles of marketplace for this subject area are considered. An overview of microservice architecture and ways of its application in queuing networks is provided

Dynamic Pricing in Movie Tickets using Regression Techniques[2]. In this work, we developed a hybrid model using data clustering and regression techniques to introduce a dynamic pricing scheme for booking online movie tickets. The model is based on different types of uncertainties in the given scenario. We study the performance of our model on four different regression techniques to maximize revenue generation. Dynamic pricing is one of the most widely used tools for revenue management. It allows companies to enhance their revenues by combining its supplies with demands, responding to changing different patterns of demand, and by attaining customer segmentation. Dynamic pricing is popularly used in various industries including airline industry, entertainment industry, hotel industry, and the retail industry.

Design Of Information System To Support Movie Ticket Booking And Cinema Operations[3]. Due to the amazing development of the internet, today if you don't transfer your business to the web it's like you don't even exist. That is why we are witnessing the growing development of web applications that allow users to complete all their tasks with only one click. Cinema is a partly complex system because many processes take place within it, so the focus of this paper is the automation of the process of booking and selling tickets for movie screenings in cinemas. This paper presents the development of a web-based information system that will enable its users to quickly and easily book tickets for movie screenings in the selected cinema

Cinema Station Application (CSA): An augmented reality application for accessing film information and online cinema booking[4]. Cinema is an effective medium for education and recreation, as it plays a crucial social, political, educational, and moral role in life. Reopening cinemas in Saudi Arabia has garnered much attention from cinema operators, moviemakers, and Saudi citizens who are eager to watch movies in cinemas. The main problem that cinemas will face when they reopen will be the overwhelming demand for tickets, as it will be difficult to reserve a ticket on a regular day and almost impossible for movie premieres. This paper describes a Cinema Station Application (CSA), which is a mobile application for cinemas that allows users to search for movies and cinema operators quickly and easily. Users have the opportunity to book a ticket anywhere and anytime. Furthermore, the application uses augmented reality technology to display a movie trailer directly on the poster and view reviews, the overall rating, and the cast.

No.	Paper Title	Author Name	Key Points	Remark
1	Software Implementation of Movie Ticket Booking System	Mykola Pasyeka, Andrew Malitchuk. 2020	This paper discusses issues related to developing a distributed online booking system. The basic stages of system development and technological principles that can be used for implementation are considered	The discussion remains largely theoretical and lacks implementation details or case studies demonstrating real-world effectiveness..
2	Dynamic Pricing in Movie Tickets using Regression Techniques	Vaibhav Gupta, Kukdeep Singh, Siddhartha Kumar Arjaria, Bhaskar Biswas 2019	In this work, they developed a hybrid model using data clustering and regression techniques to introduce a dynamic pricing scheme for booking online movie tickets	The focus on uncertainties and demand patterns adds depth, but the model's real- time applicability and scalability are not deeply explored.

3	Design Of Information System To Support Movie Ticket Booking And Cinema Operations	Sara Lazarevic,Tamara Zuvela, 2022	the focus of this paper is the automation of the process of booking and selling tickets for movie screenings in cinemas. This paper presents the development of a web-based information system that will enable its users to quickly and easily book tickets for movie screenings in the selected cinema.	It's a solid contribution for understanding core automation in cinema operations.
4	Cinema Station Application (CSA): An augmented reality application for accessing film information and online cinema booking	Samar M. Alkhuraiji.,2020	This paper describes a Cinema Station Application (CSA), which is a mobile application for cinemas that allows users to search for movies and cinema operators quickly and easily. Users have the opportunity to book a ticket anywhere and anytime.	This paper addresses the high demand challenge creatively, yet it focuses more on UI innovation than backend or booking system robustness.
5	Convolutional Recommended Neural Network system based on user reviews for movies	P. Kirubanantham, A. Saranya, D. Senthil Kumar,2021	Improved the accuracy and prediction level of the movies in our proposed model based on user feedback and ratings. Compared to the existing movie system, our proposed model provides better accuracy and recommends that the user enjoy the tickets booking	This research focuses on using neural networks for movie recommendation based on user reviews, significantly enhancing personalization in ticket booking systems. The model shows promising results in accuracy and user satisfaction.

III. METHODOLOGY OF PROPOSED SURVEY

Users will be able to book tickets whenever and wherever they want because the system will be online-based. The online system for ordering movie tickets will provide the customer with thorough information, enabling them to make an informed decision about which ticket to purchase. The client has the choice to look through upcoming films, providing him the opportunity to buy a ticket in advance. The user can book 10 tickets at once. If the user cancels their movie tickets in our booking system within four hours of the movie's start time, they will be eligible for a refund. There are two logins: admin login, and user login. In user login, the user must register if he doesn't already have an account. If the user already has an account, he must log in to start the session. The customer can select movies on the movie page. After selecting the movie, the page displays available shows. The user selects the date and number of seats for a movie and confirms the seats in the theatre. Then the page redirects to the payment and asks the user to enter the card details. After successful payment, the booking is confirmed. In the admin login, the administrator can add or remove theatres. The administrator can add upcoming movies.

User Module:

New users are required to register by providing basic details. Returning users can directly log in using their credentials.

Once authenticated, users can:

- Browse the list of currently running and upcoming movies.
- View show timings and available seats in various theatres.
- Book up to ten tickets in a single transaction.
- Receive immediate confirmation upon successful payment via integrated card processing.

A refund mechanism is incorporated: Users can cancel tickets and receive a refund if the cancellation is made at least four hours before the movie start time.

Admin Module:

- The admin has the authority to manage theatre and movie data.
- Capabilities include:
 - Adding or removing theatres from the system.
 - Updating details of upcoming movies and show timings.
- Admin operations are secured with login credentials to prevent unauthorized access.

Billing and Ticket Generation:

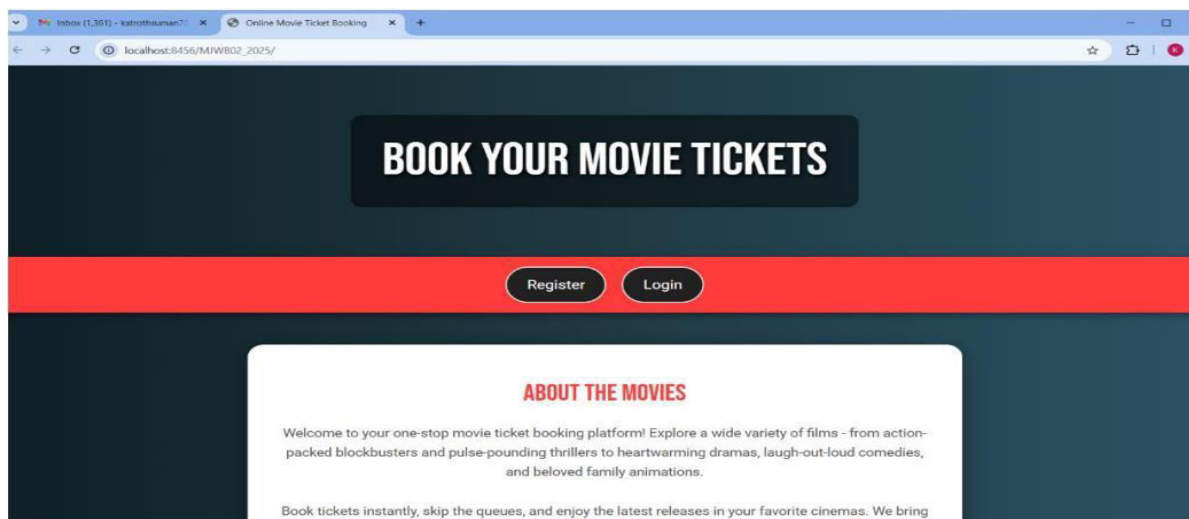
- The system supports automatic billing after seat confirmation and payment.
- Upon booking completion, a printable confirmation form is generated, which the user can present at the theatre counter to collect physical tickets, if required.

System Benefits:

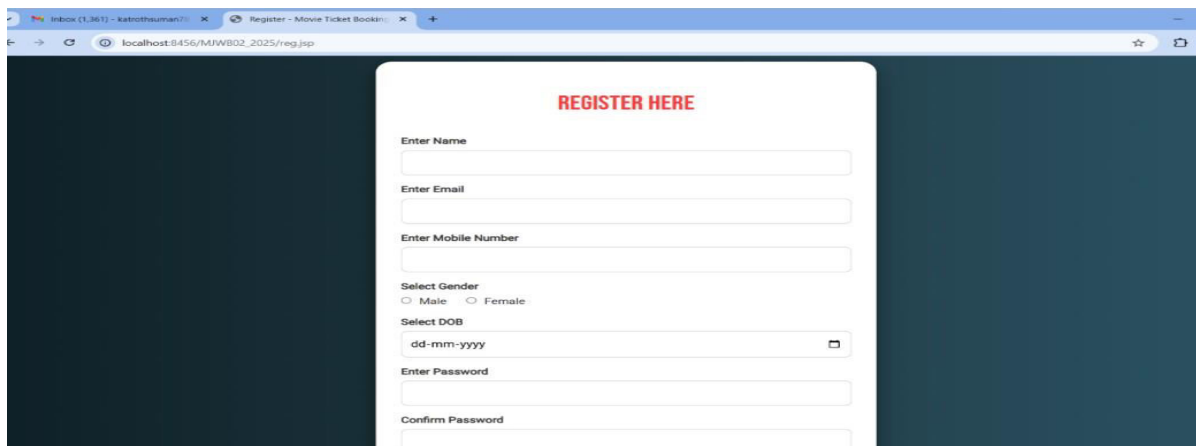
- Enhances customer experience by minimizing waiting times and reducing manual errors in ticket sales.
- Reduces manpower requirements by automating the booking and billing processes.

IV.RESULTS

4.1 User page

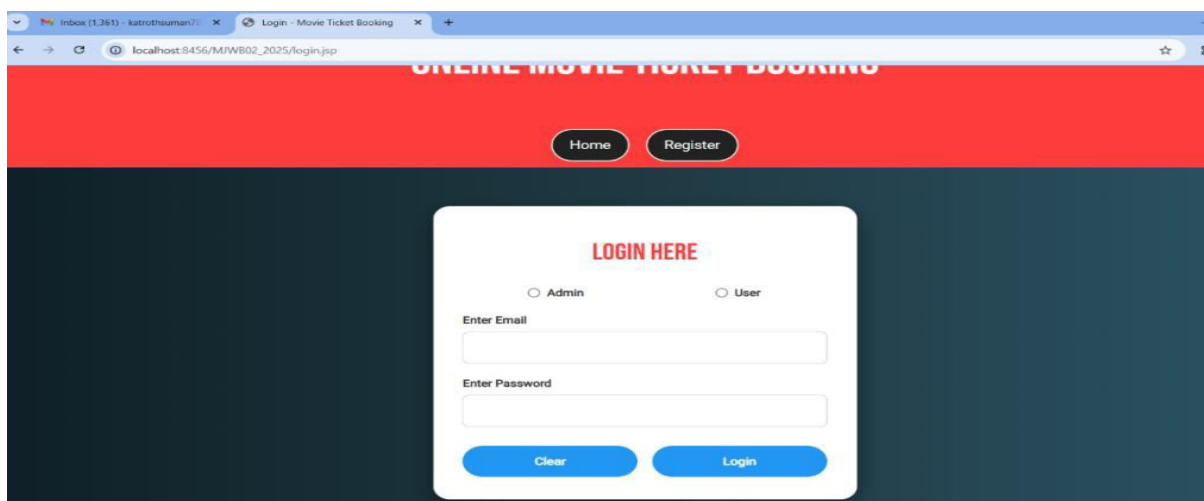


4.2 Registration Page



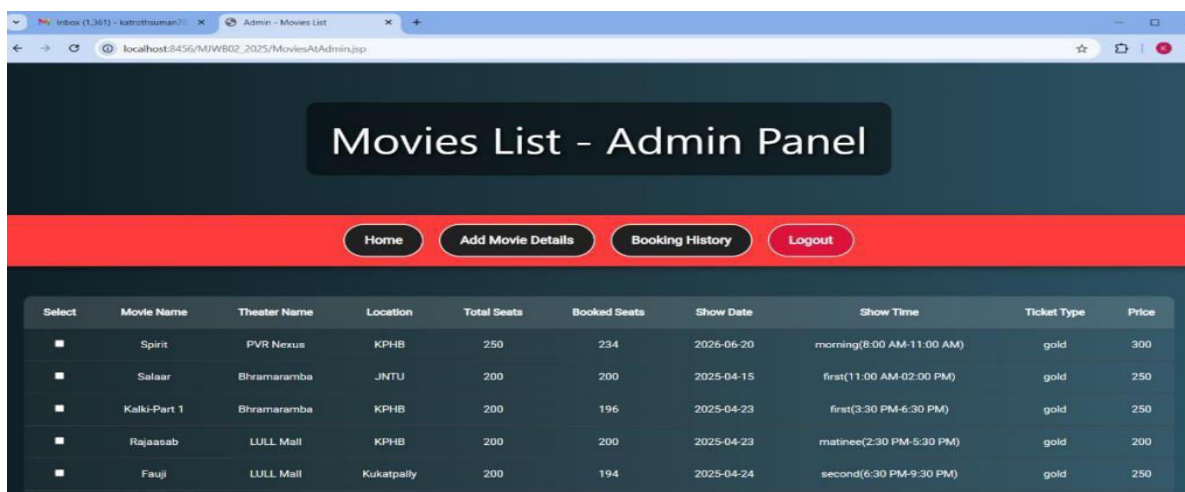
The screenshot shows a web browser window with the URL `localhost:8456/MJWB02_2025/reg.jsp`. The page has a dark blue background. In the center, there is a white rectangular box titled "REGISTER HERE" in red. Inside this box, there are several input fields: "Enter Name", "Enter Email", "Enter Mobile Number", "Select Gender" (with radio buttons for Male and Female), "Select DOB" (with a date picker showing dd-mm-yyyy), "Enter Password", and "Confirm Password".

4.3 Login Page



The screenshot shows a web browser window with the URL `localhost:8456/MJWB02_2025/login.jsp`. The page has a dark blue background. At the top, there is a red banner with the text "ONLINE MOVIE TICKET BOOKING" in white. Below the banner, there are two buttons: "Home" and "Register". In the center, there is a white rectangular box titled "LOGIN HERE" in red. Inside this box, there are radio buttons for "Admin" and "User", followed by "Enter Email" and "Enter Password" input fields. At the bottom of the box, there are two buttons: "Clear" and "Login".

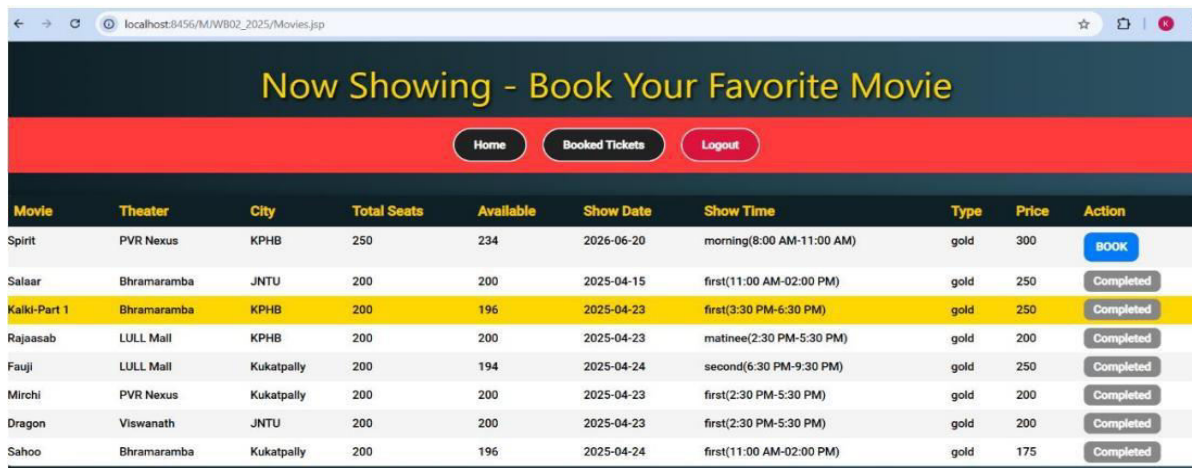
4.4 Admin Panel Page



The screenshot shows a web browser window with the URL `localhost:8456/MJWB02_2025/MoviesAtAdmin.jsp`. The page has a dark blue background. At the top, there is a dark blue banner with the text "Movies List - Admin Panel" in white. Below the banner, there are four buttons: "Home", "Add Movie Details", "Booking History", and "Logout". Below the buttons, there is a table with the following data:

Select	Movie Name	Theater Name	Location	Total Seats	Booked Seats	Show Date	Show Time	Ticket Type	Price
<input type="checkbox"/>	Spirit	PVR Nexus	KPHB	250	234	2025-06-20	morning(8:00 AM-11:00 AM)	gold	300
<input type="checkbox"/>	Salaar	Bhramaramba	JNTU	200	200	2025-04-15	first(11:00 AM-02:00 PM)	gold	250
<input type="checkbox"/>	Kalki-Part 1	Bhramaramba	KPHB	200	196	2025-04-23	first(3:30 PM-6:30 PM)	gold	250
<input type="checkbox"/>	Rajaasab	LULL Mall	KPHB	200	200	2025-04-23	matinee(2:30 PM-5:30 PM)	gold	200
<input type="checkbox"/>	Fauji	LULL Mall	Kukatpally	200	194	2025-04-24	second(6:30 PM-9:30 PM)	gold	250

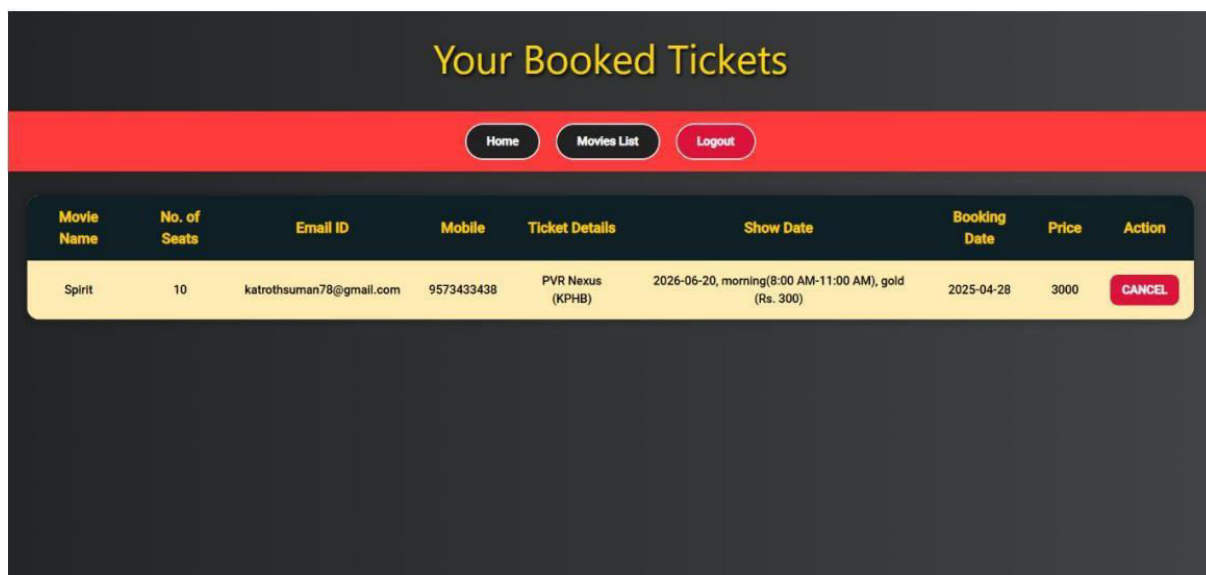
4.5 Movies Playing List



The screenshot shows a web application interface for movie bookings. At the top, there's a navigation bar with 'Home', 'Booked Tickets', and 'Logout' buttons. Below the navigation bar is a table listing movies currently showing. The table has columns for Movie, Theater, City, Total Seats, Available, Show Date, Show Time, Type, Price, and Action. The 'Spirit' movie is highlighted in blue, and its 'Action' button is labeled 'BOOK'. Other movies like 'Salaar', 'Kalki-Part 1', 'Rajaasab', 'Fauji', 'Mirchi', 'Dragon', and 'Sahoo' have 'Completed' buttons.

Movie	Theater	City	Total Seats	Available	Show Date	Show Time	Type	Price	Action
Spirit	PVR Nexus	KPHB	250	234	2026-06-20	morning(8:00 AM-11:00 AM)	gold	300	BOOK
Salaar	Bhramaramba	JNTU	200	200	2025-04-15	first(11:00 AM-02:00 PM)	gold	250	Completed
Kalki-Part 1	Bhramaramba	KPHB	200	196	2025-04-23	first(3:30 PM-6:30 PM)	gold	250	Completed
Rajaasab	LULL Mall	KPHB	200	200	2025-04-23	matinee(2:30 PM-5:30 PM)	gold	200	Completed
Fauji	LULL Mall	Kukatpally	200	194	2025-04-24	second(6:30 PM-9:30 PM)	gold	250	Completed
Mirchi	PVR Nexus	Kukatpally	200	200	2025-04-23	first(2:30 PM-5:30 PM)	gold	200	Completed
Dragon	Viswanath	JNTU	200	200	2025-04-23	first(2:30 PM-5:30 PM)	gold	200	Completed
Sahoo	Bhramaramba	Kukatpally	200	196	2025-04-24	first(11:00 AM-02:00 PM)	gold	175	Completed

4.6 Tickets Booked



The screenshot shows a web application interface for viewing booked tickets. At the top, there's a navigation bar with 'Home', 'Movies List', and 'Logout' buttons. Below the navigation bar is a table listing booked tickets. The table has columns for Movie Name, No. of Seats, Email ID, Mobile, Ticket Details, Show Date, Booking Date, Price, and Action. The 'Spirit' movie is listed with 10 seats booked for the user 'katrothsuman78@gmail.com' at a price of 3000. The 'Action' button is labeled 'CANCEL'.

Movie Name	No. of Seats	Email ID	Mobile	Ticket Details	Show Date	Booking Date	Price	Action
Spirit	10	katrothsuman78@gmail.com	9573433438	PVR Nexus (KPHB)	2026-06-20, morning(8:00 AM-11:00 AM), gold (Rs. 300)	2025-04-28	3000	CANCEL

V. CONCLUSION AND FUTURE WORK

So, First we login to the system with username and password that we already data has been fed into the database. Then it takes into another page where we select movie and then after we selecting movie another page comes then we select show timings. After selecting show timings it takes into another page there we select number of tickets we want. After selecting number of tickets it takes into another page there we print ticket with cost.

This project is aimed at being more user friendly with the movie lovers. To overcome three major problems this project is designed, which is standing in a queue for parking, unavailability, cancelling the tickets, snacks and unavailability of paying on spot along with booking tickets

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