A

PROJECT REPORT

ON

“ Movie Ticket Booking System”

SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE

WEB APPLICATION DEVELOPMENT

BACHELOR OF ENGINEERING

In

Information Technology

By

Under the Guidance of

Prof. S. S. Patil

Sinhgad Institutes

Submitted to

DEPARTMENT OF INFORMATION TECHNOLOGY

STES’S SINHGAD ACADEMY OF ENGINEERING, PUNE-411048

2024-2025

CERTIFICATE

This is to certify **Atharva Lole , Aman Jambhulkar , Harsh Chaudhari , Aditya Shirsat** Roll No: ITTA60, ITTA07, ITTA10, ITTA08 has completed all the Term Work & Project Work in the subject Internship satisfactorily in the department of Third Year Engineering as prescribed by Savitribai Phule Pune University, in the academic year 2024- 2025.

Submitted by

(Students Name and Exam No)

Atharva Lole	ITTA60
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Harsh Chaudhari	ITTA10
Aditya Shirsat	ITTA08

It is a bona fide work carried out by them under the guidance of **Prof. S. S. Patil** , and it is approved for the partial fulfillment of the requirement of **Savitribai Phule Pune University** for the Web Application in the Third Year of **Information Technology.**

This report has not been previously submitted to any other institute or University for the award of any degree or diploma.

Prof. S. S. Patil	**Dr. S. S. Kulkarni**	**Dr. K. P. Patil**
Project Guide	**H.O.D**	**Principal**

Place: Pune

Date:

ACKNOWLEDGMENT

I would like to express my sincere gratitude to everyone who supported and guided me throughout the successful completion of my project titled **"Movie Ticket Booking System"**

First and foremost, I would like to thank my college and the Department of Information Technology for giving me this opportunity to undertake this project as part of the academic curriculum. This project has provided me with valuable practical knowledge and a real-world understanding of how theoretical concepts are applied in the field.

I am deeply grateful to my internal guide and project coordinator, for their constant support, encouragement, and valuable suggestions at every stage of the project. Their guidance helped me improve my learning, planning, and problem-solving skills. I truly appreciate the time and effort they dedicated to reviewing my work and providing constructive feedback.

I also wish to extend my gratitude to the staff and technical team who shared their knowledge, provided insights, and made this learning experience more enriching and meaningful. Their assistance helped me overcome several technical challenges and improved my understanding of Java programming, File I/O, GUI development using Swing, and overall project structure.

During this ,I learned how to design, implement, and test a real-time application. I gained hands-on experience with Java programming concepts like Object-Oriented Programming, Swing- based GUI design, file handling, and data serialization. I also learned how to follow a structured project development approach—from requirement gathering and system design to implementation, testing, and documentation.

This project helped me enhance not only my technical skills but also my ability to manage time, communicate ideas effectively, and work independently with a sense of responsibility. I now feel more confident in handling technical tasks and contributing to real-world software development environments.

(Student Name & Signature)

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Abstract

The Movie Ticket Booking System is a web-based application developed using PHP and MySQL that provides users with a convenient and efficient platform to book movie tickets online. This project aims to replicate real-world online ticket booking scenarios by offering a full-fledged system that includes a client interface, an admin panel, and a theatre management module. It serves as an ideal academic project for IT students seeking to explore dynamic web development, database management, and user interface design.

The system allows users to browse current and upcoming movies, watch trailers, view show timings, and book tickets based on available screens and seats. Through a simple registration and login process, users gain access to a personalized dashboard where they can manage their bookings and view their history. The payment interface ensures users can easily proceed with their ticket purchases.

The project's interface is built with Bootstrap and Vanilla CSS, utilizing the Admin LTE template to offer a clean and responsive design. It is optimized for PHP version 5.6.3, ensuring compatibility and smooth functionality. With its modular architecture and real-time interaction capabilities, this Movie Ticket Booking System presents a practical learning opportunity for students and developers. It demonstrates the integration of client-server communication, CRUD operations, session handling, and UI/UX design, making it a valuable resource for both academic and self-learning purposes.

Introduction

In today's digital era, automation and online services have become essential components of modern business operations. The entertainment industry, especially cinema and movie theatres, has seen a significant shift from traditional, manual ticket booking methods to fully digital platforms that offer convenience, speed, and enhanced user experience. The *Movie Ticket Booking System* is a web-based application developed using PHP and MySQL, designed to streamline the process of booking movie tickets and managing theatre operations efficiently.

This project provides a unified platform for customers, administrators, and theatre managers. Customers can easily browse available and upcoming movies, view trailers, check show timings, and book tickets online. The system also supports user authentication, booking history, and secure payment processing. By eliminating the need for physical presence or long queues at the theatre, it greatly improves the customer experience.

On the administrative side, the system provides an interface for managing movie listings, show schedules, and upcoming releases. Admins can update movie details, add new shows, and monitor booking activities. Theatre managers are given a separate panel where they can control screens, manage seat configurations, set ticket pricing, and handle showtime scheduling. This ensures that all operations are conducted in a structured and organized manner.

Designed with a clean user interface using Bootstrap and the Admin LTE template, the system is user-friendly, responsive, and accessible. It also emphasizes data consistency, scalability, and ease of use, making it an ideal solution for small to medium-sized theatres looking to digitalize their ticketing process. In addition to being a practical application, this project serves as an excellent learning tool for IT students and web development beginners, showcasing how real-world online booking systems are developed and implemented.

Problem Statement

Managing movie ticket bookings manually or through outdated systems presents several challenges such as inefficient seat allocation, delayed booking confirmations, lack of real-time availability updates, and poor customer service experience. As the number of customers and movie shows increases, maintaining accurate records of show timings, bookings, payments, and customer interactions becomes increasingly difficult and time-consuming.

The Movie Ticket Booking System project aims to solve these problems by providing a PHP and MySQL-based web application that can:

- Store and manage movie details, including title, cast, trailer, and poster.
- Schedule and manage show timings and screen-wise seat allocations.
- Allow customers to register, log in, browse movies, and book tickets online.
- Enable secure payment processing based on selected show and screen pricing.
- Maintain historical booking data for both customers and theatre administrators.
- Provide separate interfaces for admin control, theatre management, and client interaction.

This centralized, web-based system ensures faster processing, greater accuracy, and enhanced user experience while improving operational efficiency for theatre staff and management.

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Objectives

The main objective of the *Movie Ticket Booking System in PHP* is to design and develop a web-based application that automates and simplifies the process of booking movie tickets and managing theatre operations. The system aims to enhance user experience by providing an efficient, easy-to-use platform for customers to book tickets, while also offering theatre managers and admins the tools they need to maintain and manage movie schedules, show timings, and bookings.

Key Objectives: •

1. Automate Movie Ticket Booking

To reduce manual ticket booking efforts by providing a digital platform where users can browse movies, select showtimes, and complete bookings seamlessly.

2. Efficient Theatre Management

To empower theatre management by offering functionalities that allow them to manage movie schedules, screens, show timings, and pricing, streamlining daily operations.

3. Simplify Customer Registration and Login

To enable customers to easily register and log in to the system, providing them with a personalized dashboard for managing bookings and viewing history.

4. Real-Time Availability Updates

To provide real-time availability of movie seats, ensuring that customers can view up-to-date information about available screens, show timings, and seat options.

5. Payment Integration

To implement a secure payment processing system, allowing customers to pay for their tickets online via an integrated payment gateway.

6. Comprehensive Booking History

To maintain a detailed booking history for customers, showing past bookings, movie titles, number of tickets, and total amounts paid for each booking.

7. Manage Upcoming Movie Releases

To enable admins to update and manage upcoming movie releases, including adding movie details like cast, plot summaries, trailers, and posters.

8. Improve User Experience with Responsive Design

To ensure that the system is responsive and user-friendly across devices, using Bootstrap and Admin LTE for a seamless interface on both desktop and mobile platforms.

Methodologies Used

The development of the *Movie Ticket Booking System in PHP* followed a modular and structured approach using standard web development practices. The primary objective was to build a dynamic, secure, and user-friendly web application that supports movie ticket bookings, show management, and overall theatre operations effectively.

1. **Modular PHP Development**

   • The entire system was developed using PHP with a modular architecture to separate functionalities logically.

   • Different modules were created for user management, movie listings, bookings, payments, and admin controls.

   • Code reusability and maintainability were prioritized throughout the project structure.

2. **MySQL Database Integration**

   • A relational database (MySQL) was used to store all the critical data such as user credentials, movie details, show timings, bookings, and payment information.

   • Proper normalization was applied to reduce data redundancy and ensure efficient data retrieval.

   • SQL queries were used to perform CRUD (Create, Read, Update, Delete) operations on various tables.

3. **Client-Server Architecture**

   • The system was built on a standard client-server model. The client-side (browser) communicates with the PHP backend via HTTP requests.

   • This ensured scalability and separation of concerns between UI rendering and business logic processing.

4. **Bootstrap for Responsive UI Design**

   • The frontend of the application was designed using Bootstrap and Vanilla CSS to ensure a responsive and mobile-friendly layout.

   • UI elements such as tables, forms, buttons, and modals were styled to provide a clean and intuitive interface.

5. **Session Management and Authentication**

   • PHP sessions were used for secure login and session handling of customers, admins, and theatre managers.

   • User authentication and role-based access were implemented to restrict access to sensitive pages and actions.

6. **Form Validation and Input Sanitization**
   • Server-side validation was implemented in PHP to validate form inputs such as registration, login, and booking forms.
   • Input sanitization was performed to prevent SQL injection and XSS (Cross-site scripting) attacks.
7. **Incremental and Iterative Development**
   • The project was developed in iterations with the following stages:
   o Database design and connection setup
   o Backend logic for bookings and user authentication
   o Admin panel and theatre management features
   o Frontend integration and testing
   • Each stage was tested thoroughly before moving to the next, ensuring functionality and reducing errors.
8. **Testing and Debugging**
   • Manual testing was performed across different browsers and user roles to ensure cross-platform compatibility.
   • Debugging tools and error logs were used to identify and fix issues related to logic, database operations, and UI responsiveness.

This systematic and phased methodology allowed the development team to focus on one functional area at a time, leading to a robust, secure, and feature-complete movie ticket booking system that aligns well with real-world theatre booking workflows.

System Requirements Specification

Software:

- PHP Version 5.6.3 (Recommended)
- MySQL Database Server (XAMPP or WAMP)
- Apache Web Server (bundled with XAMPP/WAMP)
- Web Browser: Google Chrome / Mozilla Firefox
- Code Editor: Visual Studio Code / Sublime Text / Notepad++
- Bootstrap Framework for UI
- Admin LTE Template for Admin Dashboard
- Operating System: Windows 7/8/10 or Linux

Hardware:

- Minimum 4GB RAM
- 2.0 GHz Dual-Core Processor or higher
- Minimum 1GB available disk space
- Standard keyboard and mouse
- Display resolution 1366x768 or higher

System Functionality

The *Movie Ticket Booking System in PHP* is divided into three main functional modules: the Client-Side (Customer Interface), Admin Panel, and Theatre Panel. Each of these modules works together to ensure seamless operations and a smooth booking experience for end-users and theatre management.

1. Client Side :

On the Client-Side, users can view a list of currently showing movies, upcoming releases, and popular trailers. The system allows new users to register and existing users to log in securely. After authentication, users can browse movies by title, view show timings, and choose screens. Once a user selects a movie and a preferred showtime, the system prompts them to choose the number of tickets and proceed to the payment section. After a successful transaction, users receive a booking confirmation and can view their entire booking history, which includes details such as booking ID, movie title, number of tickets, and total cost.

2. Admin Panel :

The Admin Panel provides core content management functionality. Admins can add, edit, or remove movies, update cast and release details, upload movie posters and trailers, and manage upcoming releases. They also oversee the list of currently available movies and maintain the movie database for both present and future shows. Although the admin panel has limited control over bookings and screens, it plays a vital role in keeping the movie database updated for customers.

3. Theatre Panel :

The Theatre Panel offers the most dynamic management capabilities. Theatre managers can add new screens with custom seat capacities and pricing, schedule shows by selecting movies, screen, and timing, and control which movies are running or stopped. The system supports multiple showtimes per screen and allows users to view current shows in a tabular dashboard. Additionally, theatre managers can list all bookings for a given screen and show, ensuring that the backend remains synchronized with customer-side activity.

Overall, the system ensures that each user role—customer, admin, and theatre manager—has access to

the tools and data necessary for their tasks. It streamlines show management, booking operations, payment handling, and content updates, all within a responsive and user-friendly web environment built with PHP, MySQL, and Bootstrap.

Implementation

The *Movie Ticket Booking System* was implemented using PHP and MySQL as the backend technologies, along with HTML, CSS, and Bootstrap for the frontend. The project follows a modular and layered architecture to separate client-side, server-side, and database operations. The development was carried out in multiple phases, focusing on establishing functional modules such as the client-side booking system, admin panel, and theatre panel.

1. Backend Implementation (PHP and MySQL):

- The core backend functionality was built using PHP for handling business logic, data processing, and server-side operations.
- PHP scripts were used for:
    - Authenticating users (login/registration)
    - Processing movie entries, show timings, and screen details
    - Handling ticket bookings and calculating total payment
    - Managing different user roles (Admin, Customer, Theatre Manager)
- MySQL was used to create and manage the relational database that stores:
    - User details, movie listings, booking records, screen data, and show timings
- SQL queries were implemented using mysqli functions to interact with the database and retrieve/update records dynamically.

2. Frontend Development (HTML, CSS, Bootstrap):

- The user interface was designed using standard HTML and enhanced with CSS for styling and Bootstrap for responsiveness.
- The frontend provided:
    - Registration and login forms
    - Movie and showtime listings in card or tabular formats
    - Dropdowns and modals for selecting showtimes and entering ticket numbers
    - Payment interfaces and confirmation dialogs
- The Admin LTE Bootstrap template was integrated to create a clean and professional dashboard experience for Admins and Theatre Managers.

3. Modular Design and Role Separation:

- The project was separated into three functional panels:
    - **Client Panel**: For browsing movies, booking tickets, and viewing history

    - **Admin Panel**: For managing movie listings, upcoming movies, and trailers
    - **Theatre Panel**: For managing screens, showtimes, and bookings
- Each role had distinct access and permissions, managed through session variables and user roles in the database.

4. Booking and Payment System:

- Booking logic was handled through PHP sessions and POST requests capturing customer selections.
- Calculations for ticket prices were based on screen configuration (number of seats × charge per seat).
- Once the booking was completed, the system generated a booking ID and stored the data in the database, allowing the user to view their booking history.

5. Database Integration and Testing:

- A .sql file containing the full schema was included with the project for easy setup via phpMyAdmin.
- Testing was carried out for:
    - Data validation (e.g., form inputs, ticket availability)
    - Booking conflicts (duplicate or overbooked shows)
    - Session management and login authentication
- The project required PHP version 5.6.3 for optimal compatibility due to deprecated functions in newer versions.

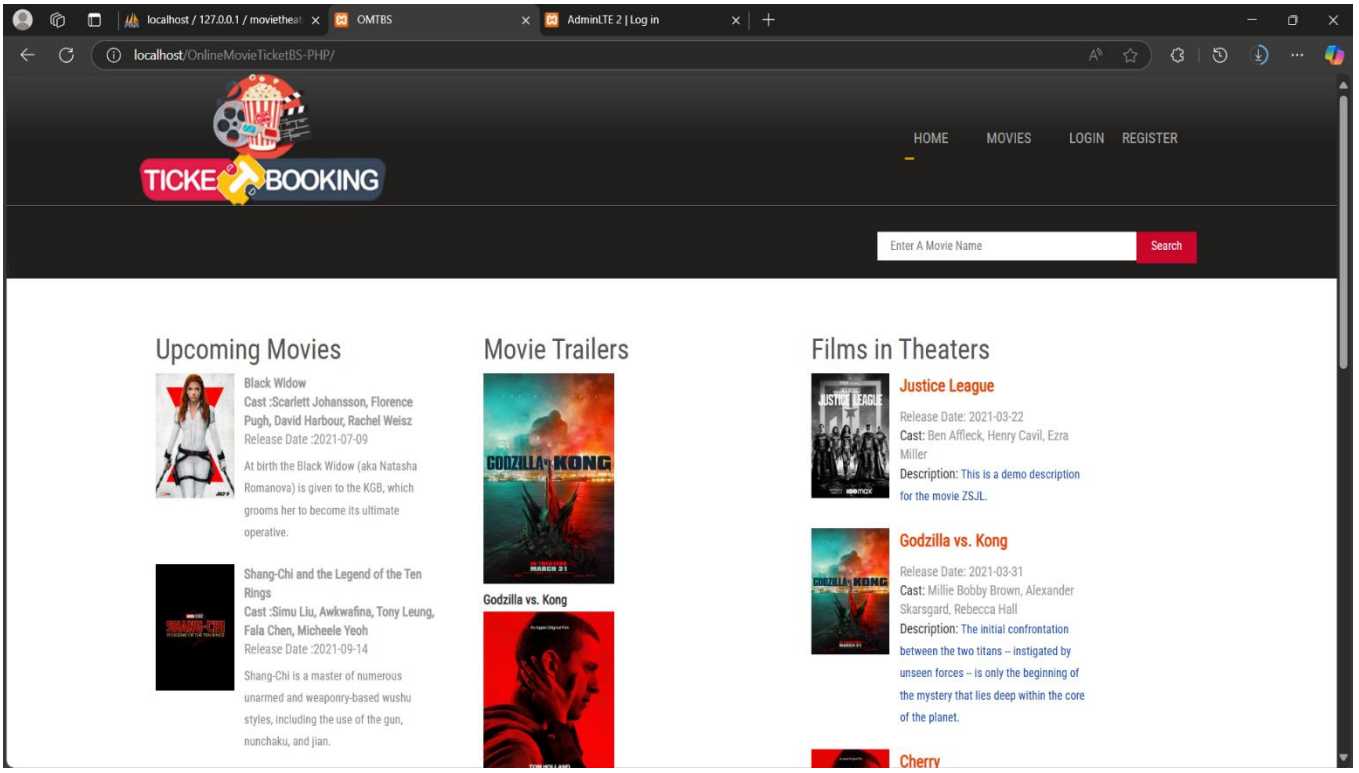
Result and Discussion

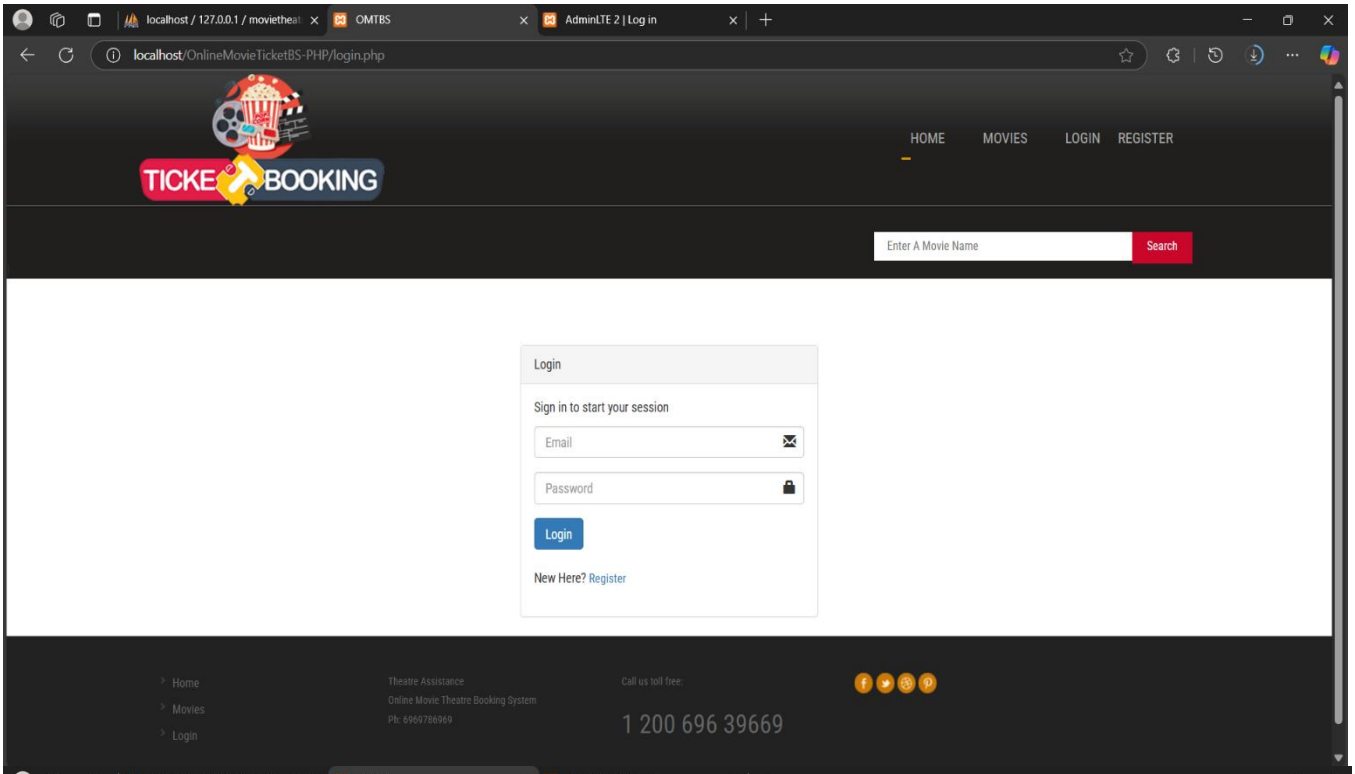
Advantages:

- Saves time by automating the movie booking and payment process.
- Provides real-time availability of movies, showtimes, and seats.
- Enhances customer experience with an easy-to-use online interface.
- Reduces manual workload for theatre staff and administrators.
- Enables efficient management of screens, shows, and upcoming releases.
- Maintains organized records of bookings, customers, and movies.
- Generates detailed booking confirmations and transaction history.
- Improves accessibility by allowing bookings from any location with internet access.

RESULT:

1. Client Side :

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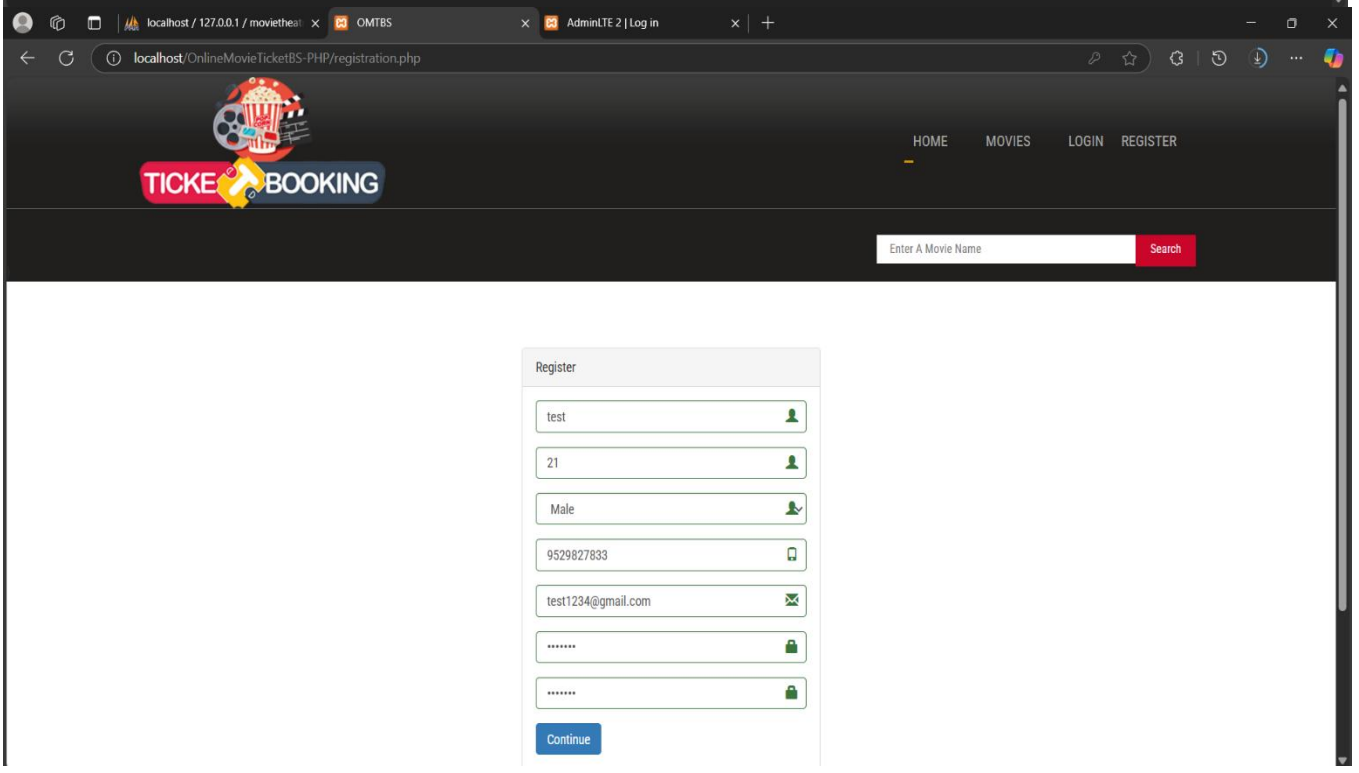
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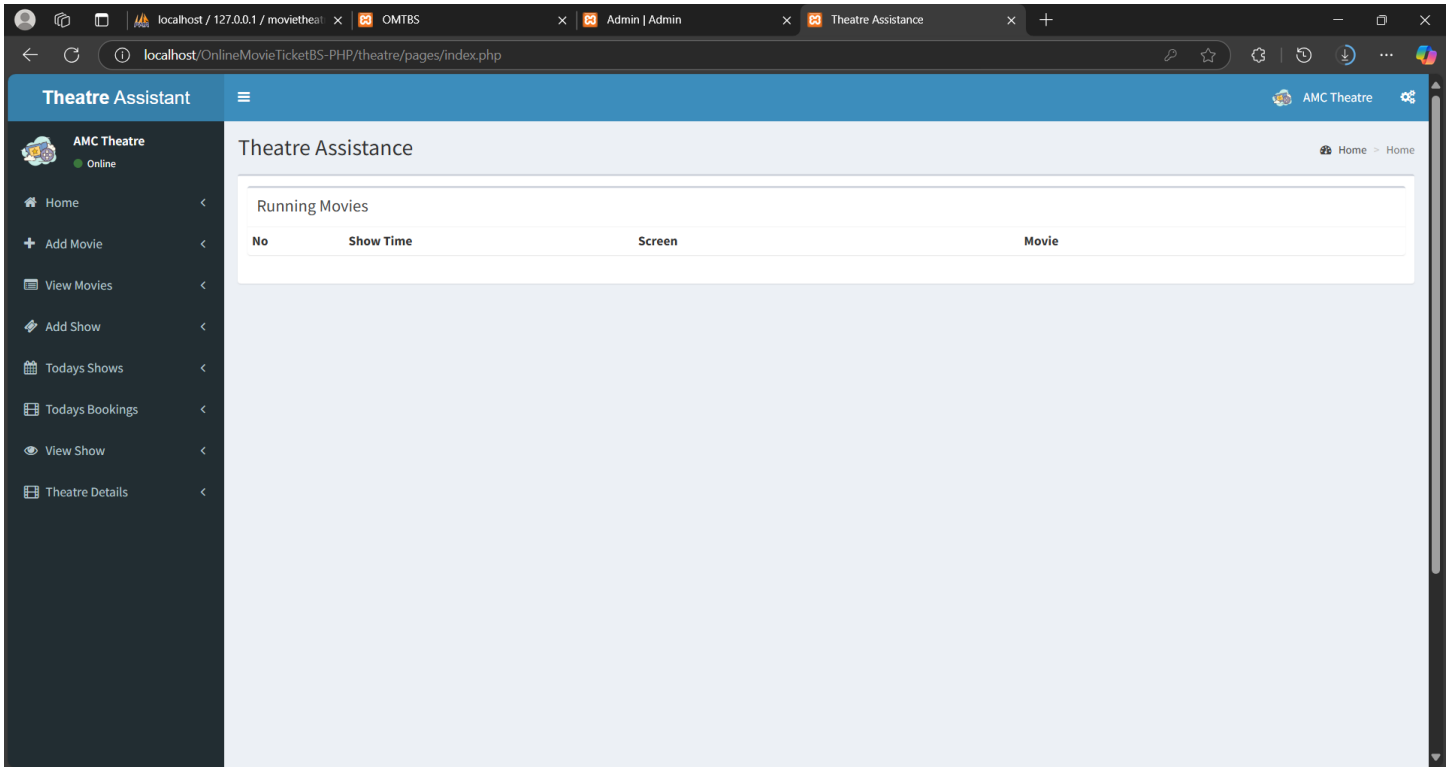
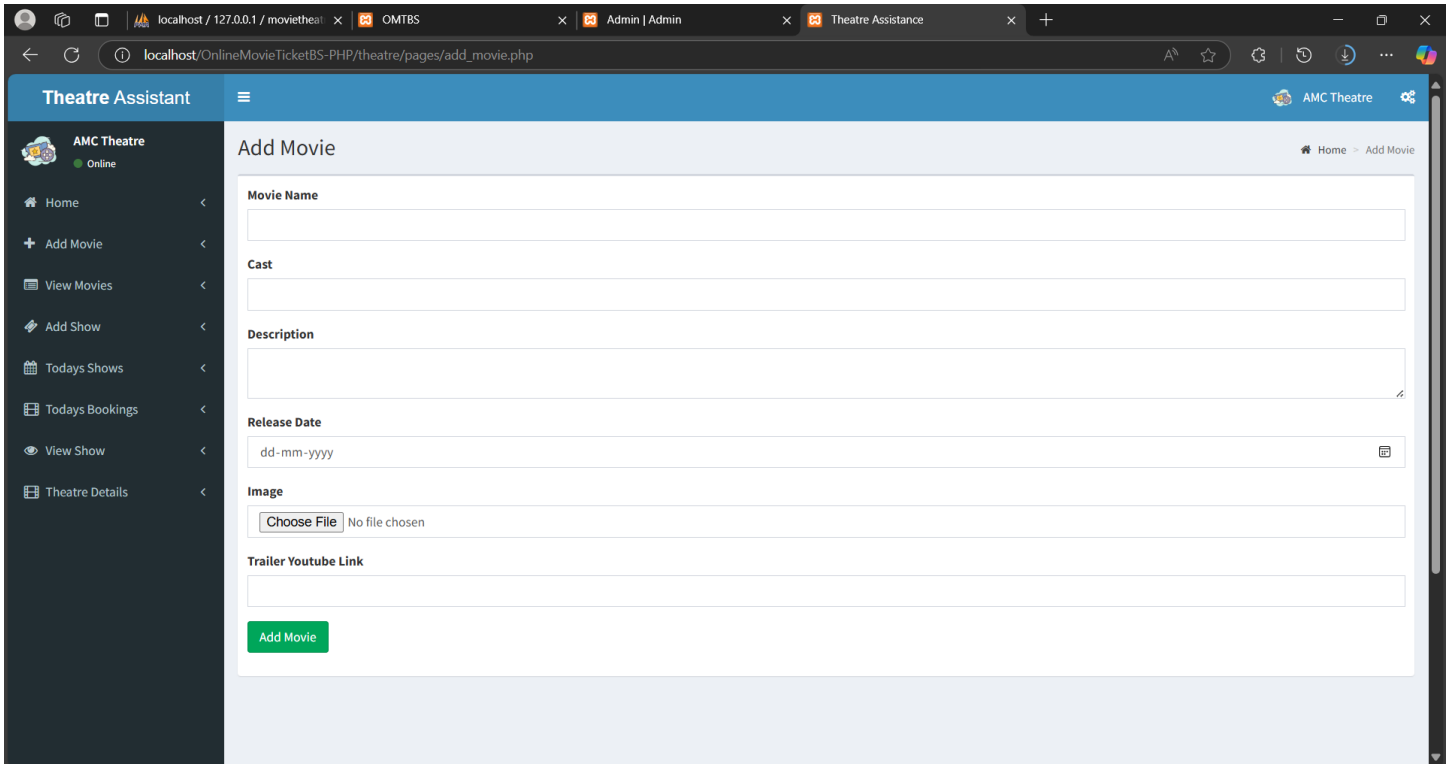
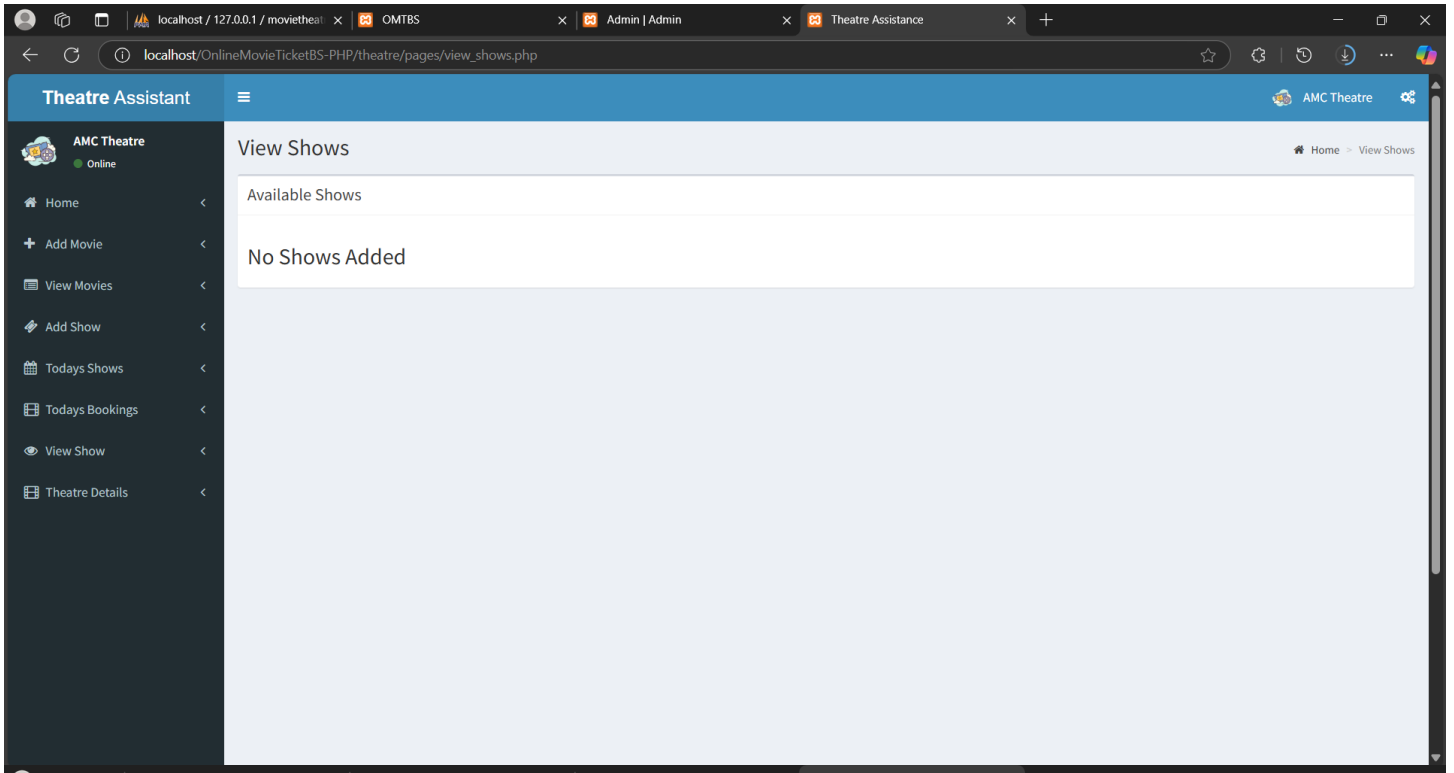
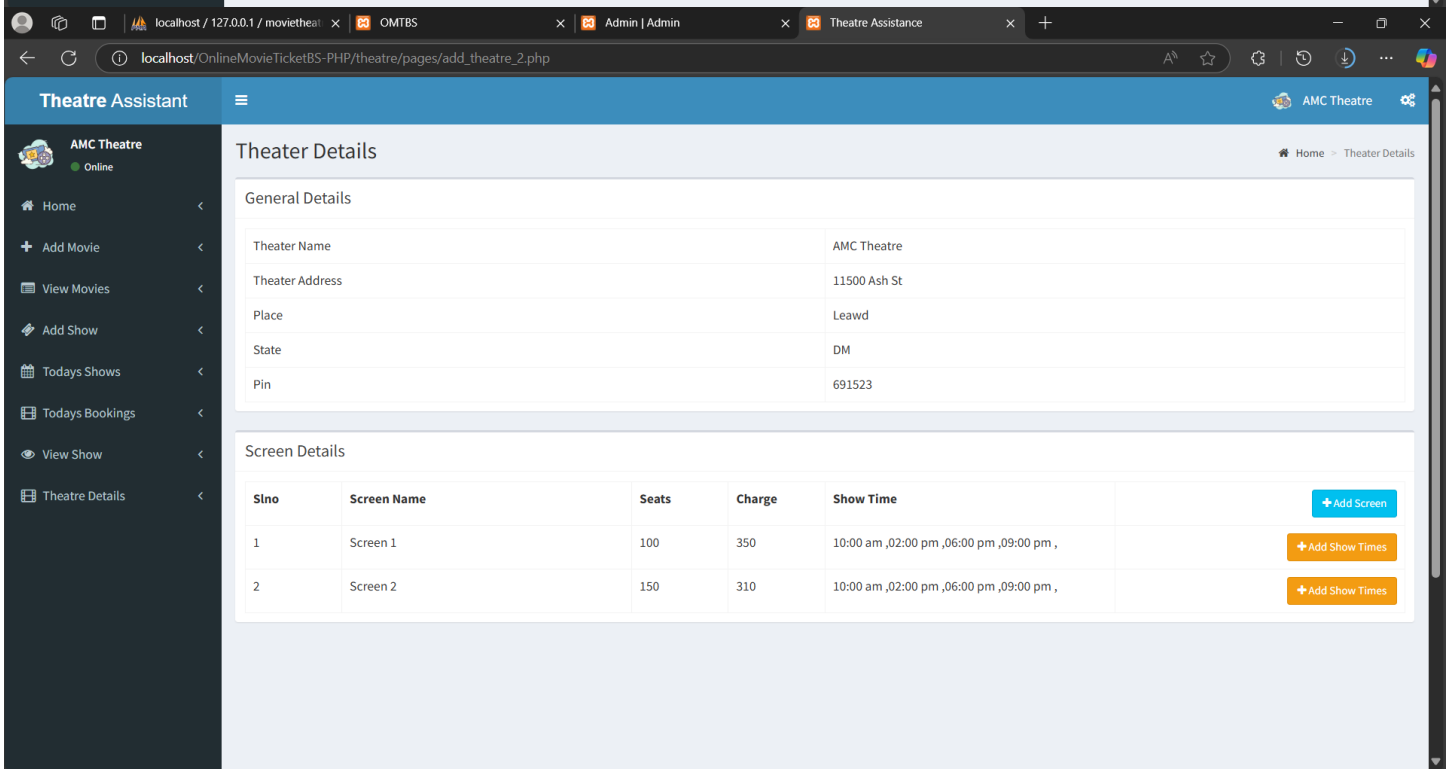




3 . **Admin Panel :**





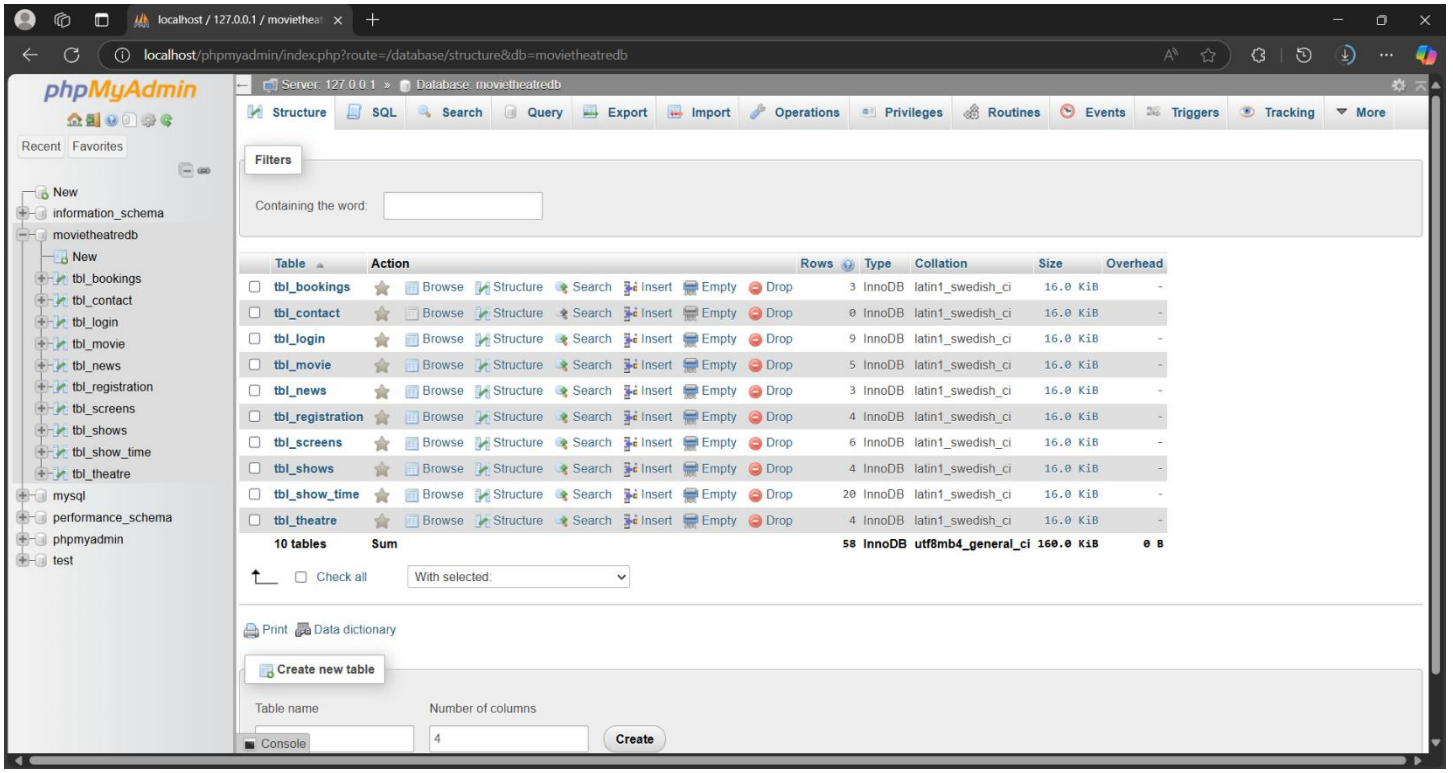

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Table name
Number of columns
4
Create
Console

Future Scope

The The current version of the Vehicle Service Station project is a standalone desktop application built using Java SE. While it meets the core requirements of a service station, there is significant potential for future improvements and expansions:

- **SMS/Email Notifications:**

Integrate automated SMS or email notification features to keep customers informed about service confirmations, billing details, and upcoming service reminders.

- **Mobile App Support:**

Develop a cross-platform mobile application (Android/iOS) that syncs with the main system, allowing customers to manage bookings, view service history, and receive notifications on the go.

- **Report Generation:**

Implement automated generation of professional PDF reports for service logs, customer activity, and financial summaries to aid in decision-making and performance tracking.

- **Cloud Synchronization:**

Incorporate cloud storage to enable real-time data synchronization across multiple devices and locations, ensuring data consistency and backup.

- **Inventory and Spare Part Management:**

Expand the system to track inventory levels, spare parts usage, and reordering schedules to improve resource planning and avoid stockouts.

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Conclusion

The *Movie Ticket Booking System in PHP* offers an efficient, user-friendly solution for managing cinema operations and enhancing the ticket booking experience for customers. By integrating client, admin, and theatre panels, the system effectively bridges the gap between moviegoers and theatre management, ensuring a smooth and organized workflow. It eliminates the traditional manual booking challenges, minimizes human errors, and speeds up the process of reserving seats, making payments, and managing show schedules.

From a technical and educational perspective, the project provides an excellent opportunity to explore the practical applications of PHP, MySQL, and web development frameworks like Bootstrap. It demonstrates core web application concepts such as CRUD operations, session handling, user authentication, and role-based access control. Overall, the system not only benefits end-users and theatre staff but also serves as a strong foundation for students and developers aiming to build scalable and dynamic web applications.

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