

A PROJECT ON
(Online movie ticket booking application)

SUBMITTED IN
PARTIAL FULFILLMENT OF THE REQUIREMENT
FOR THE COURSE OF DIPLOMA IN ADVANCED COMPUTING FROM CDAC



SUNBEAM INSTITUTE OF INFORMATION TECHNOLOGY
HINJEWADI

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PG-DAC-2024

SIIT Pune

(Online movie ticket booking application)

CERTIFICATE

This is to certify that the project work under the title 'Web Portal for Student and teacher' is done by

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in partial fulfilment of the requirement for award of Diploma in Advanced Computing Course.

Project Guide

Date: 27-01-2025

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1. INTRODUCTION

The **Online Movie Ticket Booking Application** is a web-based platform designed to offer a seamless experience for users to browse available movies, select showtimes, book seats, and make online payments. The system aims to eliminate the hassle of offline ticket purchases and provide a user-friendly interface for customers, theater owners, and administrators.

Objectives:

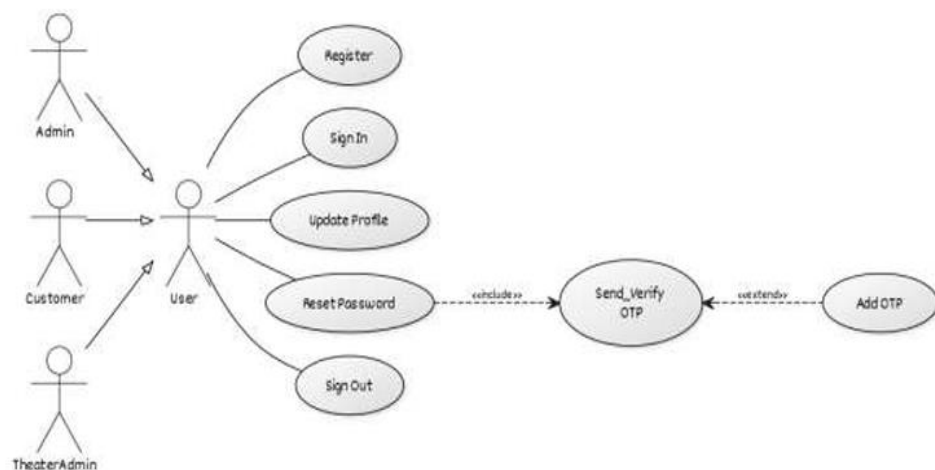
- To provide a user-friendly movie booking experience.
 - To implement a secure and scalable ticket reservation system.
 - To allow seamless integration of theaters, schedules, and payments.
 - To enable an admin panel for managing movies, bookings, and users.
-

2. REQUIREMENTS

2.1 Functional Requirements

Project Title Bookmyshow (Online movie ticket booking application)

Description Main objective of our project is to provide service to customers for booking cinema tickets from anywhere anytime and providing information about the movies and their schedule online. Users can easily search for the movies and available seats without login and after login they can book their tickets online. In this application there are 3 types of user: Admin, Theatre admin and User mode. BookMyShow offers showtimes, movie tickets, reviews, trailers, concert tickets



2.1.1 User Module

- User Registration and Authentication (JWT-based Security).
- Browse movies, view details, and select showtimes.
- Seat selection and booking confirmation.
- Online payment integration.
- Booking history and profile management.

2.1.2 Admin Module

- Manage movies, showtimes, and bookings.
- User management and role assignment.
- View sales reports and statistics.

2.2 Non-Functional Requirements

- **Scalability:** Should support multiple users simultaneously.
- **Security:** Secure payment and authentication mechanisms.
- **Performance:** Efficient database queries and API calls.

2.3 Hardware & Software Requirements

- **Frontend:** React.js, Bootstrap CSS
 - **Backend:** Spring Boot 3.4.1, Spring Security (JWT)
 - **Database:** MySQL
 - **Hosting Server:** Apache Tomcat
 - **Minimum System Requirements:** Intel Core i5, 8GB RAM, SSD Storage
-

3. SYSTEM DESIGN

3.1 Database Design

The application uses **MySQL** as its database. The primary tables include:

- **Users:** Stores user details and authentication information.
- **Movies:** Contains details of movies such as title, duration, and category.
- **Theaters:** Stores theater locations and available screens.
- **Bookings:** Manages user reservations and seat selections.
- **Payments:** Keeps track of completed transactions.

All Tables In Database:

```
+-----+
| Tables_in_multiplex |
+-----+
| booking              |
| hall                 |
| hall_hallcapacity    |
| hallcapacity         |
| movie                |
| seattype              |
| shows                |
| user                 |
+-----+
3 rows in set (0.00 sec)

root>
```


Bookings Table

```
root>desc booking;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra      |
+-----+-----+-----+-----+-----+-----+
| bookingId  | int       | NO   | PRI | NULL    | auto_increment |
| bookDate   | date      | YES  |     | NULL    |              |
| cancelCharges | float    | NO   |     | NULL    |              |
| cost       | float     | NO   |     | NULL    |              |
| noOfSeats  | int       | NO   |     | NULL    |              |
| seatnos    | varchar(255) | YES  |     | NULL    |              |
| showDate   | date      | YES  |     | NULL    |              |
| status     | varchar(255) | YES  |     | NULL    |              |
| show_id    | int       | YES  | MUL | NULL    |              |
| user_id    | int       | YES  | MUL | NULL    |              |
+-----+-----+-----+-----+-----+-----+
10 rows in set (0.00 sec)
```

Table for Hall:-

```
root>desc hall;
+-----+-----+-----+-----+-----+-----+
| Field      | Type      | Null | Key | Default | Extra      |
+-----+-----+-----+-----+-----+-----+
| hallId     | int       | NO   | PRI | NULL    | auto_increment |
| capacity   | int       | NO   |     | NULL    |              |
| hallDesc   | varchar(255) | YES  |     | NULL    |              |
+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

Table for Hall capacity

```
root>desc hall_hallcapacity;
```

Field	Type	Null	Key	Default	Extra
Hall_hallId	int	NO	MUL	NULL	
hallcapacity_id	int	NO	PRI	NULL	

2 rows in set (0.00 sec)

Table for hall capacity

```
root>desc hallcapacity  
-> ;
```

Field	Type	Null	Key	Default	Extra
id	int	NO	PRI	NULL	auto_increment
seatCount	int	NO		NULL	
hall_id	int	YES	MUL	NULL	
seat_type_id	int	YES	MUL	NULL	

4 rows in set (0.00 sec)

Table for Movie

Table for seattype

```
root>desc seattype;
```

Field	Type	Null	Key	Default	Extra
seatTypeId	int	NO	PRI	NULL	auto_increment
fare	int	NO		NULL	
seatTypeDesc	varchar(255)	YES		NULL	

```
3 rows in set (0.00 sec)
```

```
root>desc movie;
```

Field	Type	Null	Key	Default	Extra
movieId	int	NO	PRI	NULL	auto_increment
actor	varchar(255)	YES		NULL	
actress	varchar(255)	YES		NULL	
description	varchar(255)	YES		NULL	
director	varchar(255)	YES		NULL	
movieName	varchar(255)	YES		NULL	
poster	varchar(255)	YES		NULL	
year	int	NO		NULL	

```
8 rows in set (0.00 sec)
```

Table for shows

```
root>desc shows;
```

Field	Type	Null	Key	Default	Extra
showId	int	NO	PRI	NULL	auto_increment
fromDate	date	YES		NULL	
price	int	NO		NULL	
slot	int	NO		NULL	
toDate	date	YES		NULL	
hall_id	int	YES	MUL	NULL	
movie_id	int	YES	MUL	NULL	

```
7 rows in set (0.00 sec)
```

Table for user

```
root>desc user;
```

Field	Type	Null	Key	Default	Extra
userid	int	NO	PRI	NULL	auto_increment
email	varchar(255)	YES		NULL	
isAdmin	bit(1)	NO		NULL	
mobile	varchar(255)	YES		NULL	
password	varchar(255)	YES		NULL	
userName	varchar(255)	YES		NULL	

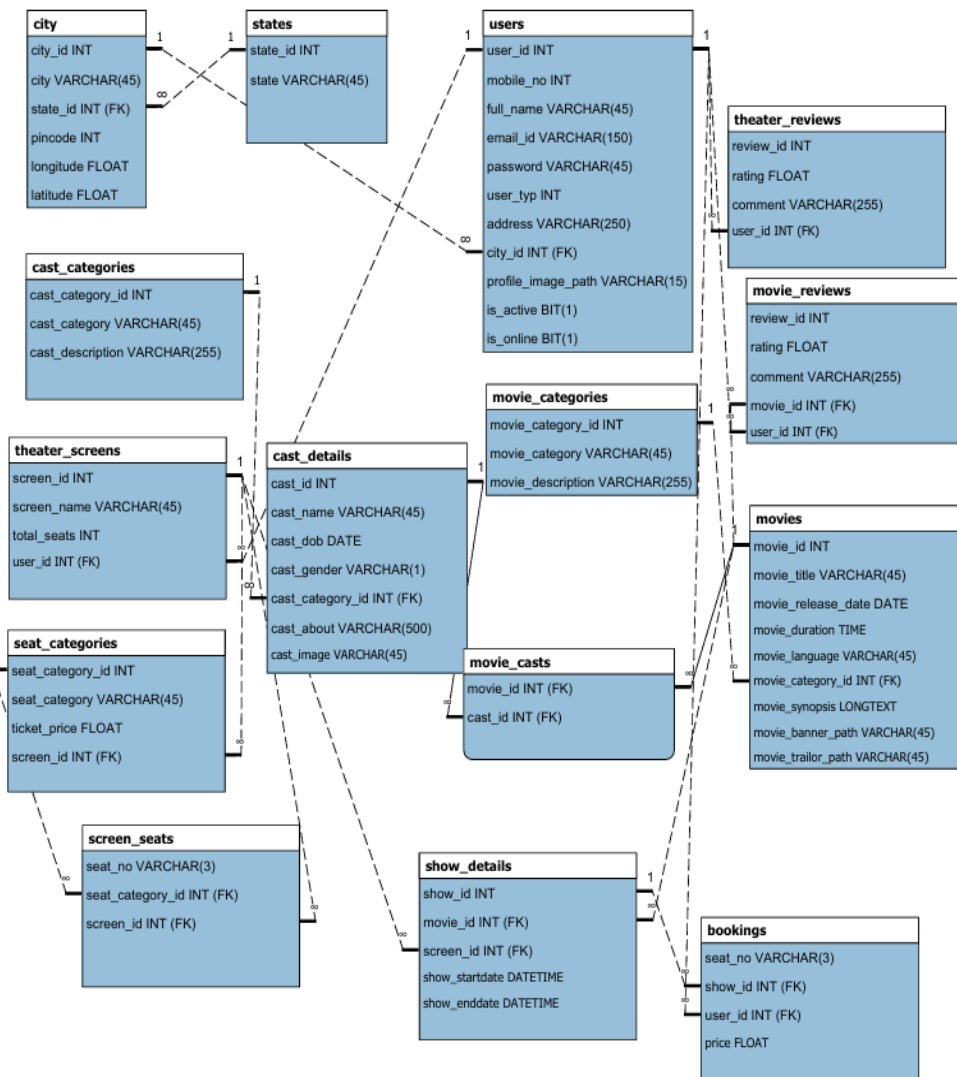
6 rows in set (0.00 sec)

3.2 Architecture

- **Frontend:** React.js components for dynamic UI.
- **Backend:** Spring Boot REST API for handling requests.
- **Database:** MySQL relational database for data storage.

3.3 Diagrams

- **Entity Relationship Diagram (ERD)** – Shows the relationships between database entities.
- **Data Flow Diagram (DFD)** – Illustrates the flow of data within the system
- **Class Diagram** – Defines object relationships in the backend.



4. IMPLEMENTATION

4.1 Technologies Used

- **React.js** for a responsive front-end.
- **Spring Boot** for a secure and scalable backend.
- **MySQL** for data storage and management.
- **JWT Authentication** for secure access control.

4.2 Features Implemented

- Secure login and user authentication.
- Movie listings and search functionality.
- Interactive seat selection system.

- Booking and transaction processing.
-

5.Application UI

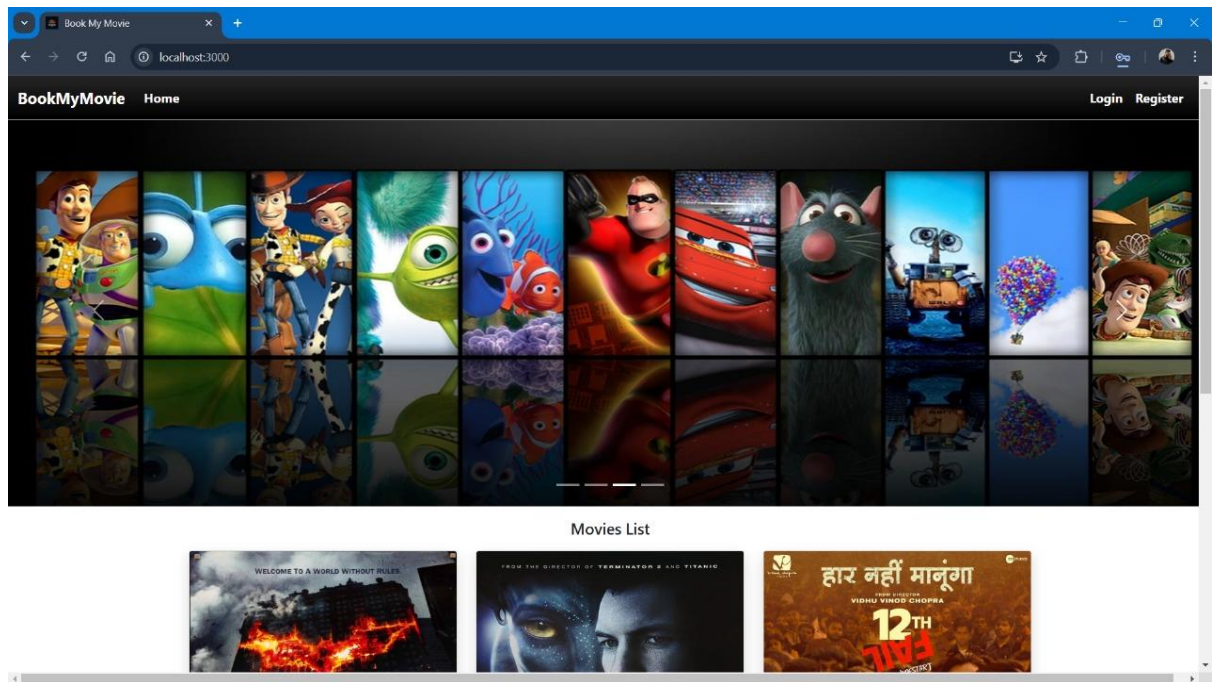
Login Page:-

A UI mockup of the login form. It features a light blue header with the text "Login Here". Below the header are two white input fields with light blue borders, labeled "Email" and "Password". At the bottom of the form is a solid blue button with the word "Login" in white text.

Registration Page:-





A UI mockup of the user registration form. It has a light blue header titled "User Registration Form". Below the header are five white input fields with light blue borders. The labels and placeholder text for the fields are: "First Name" (placeholder: "Enter first name"), "Last Name" (placeholder: "Enter last name"), "Mobile Number" (placeholder: "Enter your number"), "Email" (placeholder: "Enter your email"), and "Password" (placeholder: "Enter your password"). A solid blue button with the text "Submit" in white is positioned at the bottom of the form.

Home Page:-

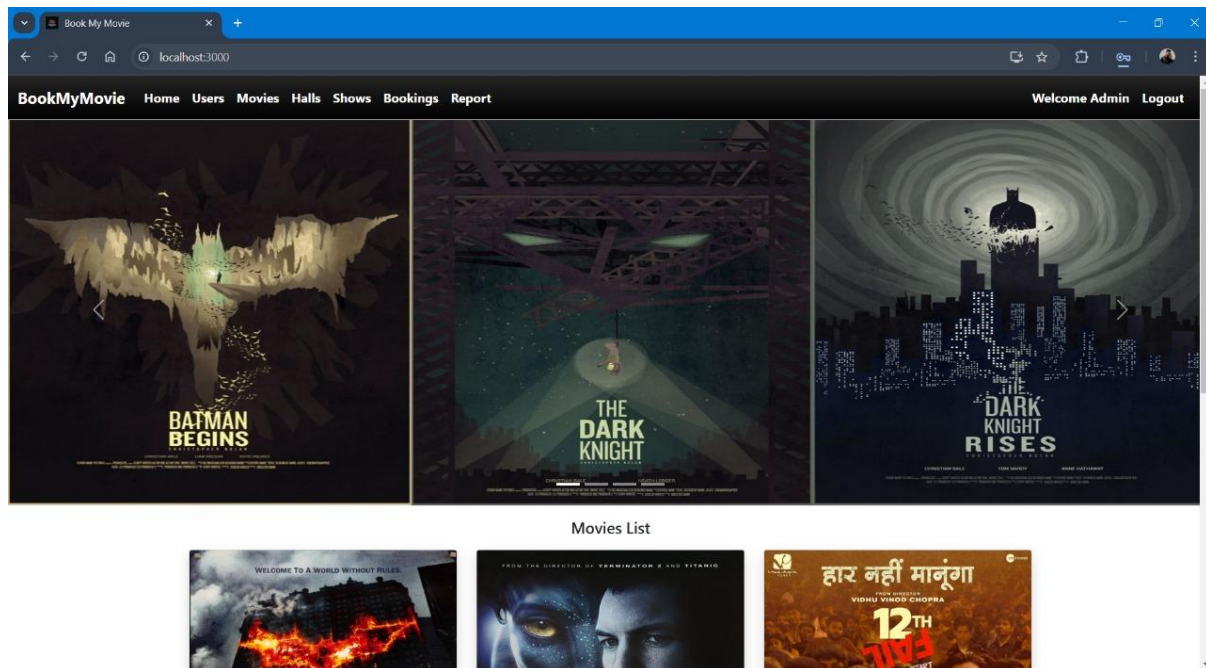


Bookings Page:-

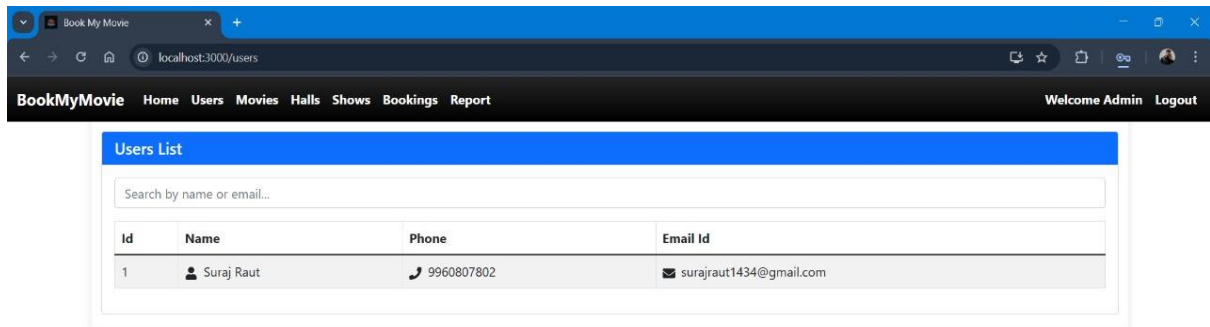
The screenshot shows the 'BookMyMovie' Bookings Page. The browser address bar indicates 'localhost:3000/mybookings'. The page has a navigation bar with 'BookMyMovie', 'Home', 'Bookings', 'Welcome Suraj Raut', and 'Logout'. The main content area displays a 'Booking History' table with 4 rows of booking details.

Id	Booking Date	Movie	No of Seats	Cost	Show Date	Status
1	09-Feb-2025	 The Dark Knight (2008) Christian Bale, Heath Ledger Christopher Nolan	4	₹600	09-Feb-2025 03:00PM to 06:00PM	Booked
2	10-Feb-2025	 Avatar (2009) Sam Worthington, Stephen Lang James Cameron	2	₹400	10-Feb-2025 06:00PM to 09:00PM	Booked
3	10-Feb-2025	 The Dark Knight (2008) Christian Bale, Heath Ledger Christopher Nolan	4	₹600	10-Feb-2025 03:00PM to 06:00PM	Booked
4	10-Feb-2025	 The Dark Knight (2008) Christian Bale, Heath Ledger Christopher Nolan	2	₹300	10-Feb-2025 03:00PM to 06:00PM	Booked

Admin Page



User list






Movie list

Book My Movie

HomeUsersMoviesHallsShowsBookingsReport

Welcome AdminLogout

Movies List

Id	Movie Name	Action
1	<div data-bbox="344 562 424 651"></div> <div data-bbox="424 562 782 651">The Dark Knight Actors: Christian Bale, Heath Ledger Actress: Maggie Gyllenhaal, Monique Gabriela</div>	<div data-bbox="798 562 821 584">Delete</div> <div data-bbox="845 562 869 584">Edit</div>
2	<div data-bbox="344 674 424 763"></div> <div data-bbox="424 674 782 763">Avatar Actors: Sam Worthington, Stephen Lang Actress: Zoe Saldana, Sigourney Weaver</div>	<div data-bbox="798 674 821 696">Delete</div> <div data-bbox="845 674 869 696">Edit</div>
3	<div data-bbox="344 786 424 875"></div> <div data-bbox="424 786 782 875">12th Fail Actors: Vikrant Massey, Vikas Divyakirti Actress: Medha Shankr, Geeta Aggarwal Sharma</div>	<div data-bbox="798 786 821 808">Delete</div> <div data-bbox="845 786 869 808">Edit</div>

Add Movie

Movie Name

Actors Name

Actresses Name

Director Name

Release Year

Description

Movie Poster

Choose file

No file chosen

Save Details

6. CONCLUSION

The **Online Movie Ticket Booking Application** successfully provides a seamless and secure platform for movie ticket reservations. It enhances the traditional booking system by offering an efficient, real-time, and user-friendly interface. Future enhancements may include AI-based recommendations, loyalty rewards, and an advanced analytics dashboard.

7. REFERENCES

1. Spring Boot Documentation - <https://spring.io/projects/spring-boot>
2. React.js Documentation - <https://reactjs.org/>
3. MySQL Documentation - <https://dev.mysql.com/doc/>
4. JWT Authentication Guide - <https://jwt.io/>