ITPR Anudip Foundation

# 1. Project Title

Event Booking Portal

# 2. Introduction

The Event Booking Portal is a comprehensive web-based application designed to streamline the process of booking and managing events. It serves as a centralized platform for event organizers to list their events and for attendees to browse, register, and manage their participation. The portal supports various types of events such as conferences, concerts, webinars, workshops, and social gatherings. It aims to replace traditional manual systems with a digital solution that increases efficiency, reduces human error, and improves the overall user experience.

# 3. Objectives

• To develop an intuitive interface for users to search and register for events.

• To allow organizers to easily create, update, and manage event listings.

• To implement secure login and registration features for both users and admins.

• To integrate real-time availability tracking and instant booking confirmation.

• To establish a scalable system that can support future enhancements.

# 4. Technologies Used

• Backend Technologies:

- Java (Servlets and JSP) to handle business logic, user sessions, and backend processing.

• Database:

- MySQL for storing user data, event details, booking records, and admin logs.

• Connectivity:

- JDBC (Java Database Connectivity) API to connect Java application with the MySQL database.

# 5. System Modules

• User Module:

- User registration and login system.

- View upcoming events, register/book events.

- Manage profile and view booking history.

• Admin Module:

- Login with admin credentials.

- Manage event listings (add/edit/delete events).

- Monitor all user activities and bookings.

- Generate reports for insights.

• Event Module:

- Add event details such as name, description, date/time, and venue.

- Update and delete existing events.

- Display events to users based on availability and categories.

• Booking Module:

- Real-time booking of events.

- Generate booking confirmation receipt.

- Allow users to cancel bookings with applicable conditions.

# 6. Roles and Responsibilities

• Java Developer:

- Design and implement the backend logic using Java.

- Create Servlets and JSPs for various features such as user login, event listing, and booking.

- Handle user session management and request processing.

• SQL Developer:

- Design the database schema for storing users, events, and bookings.

- Write optimized SQL queries, joins, views, and constraints for data integrity.

- Ensure secure and efficient database operations.

• JDBC Role:

- Establish JDBC connections between Java and MySQL.

- Write Java code to execute SQL queries and fetch results.

- Manage error handling and connection pooling.

# 7. Key Features

• Responsive and user-friendly interface for all devices.

• Role-based login system for users and admins.

• Real-time event availability status and booking confirmation.

• Secure and encrypted password storage.

• Email notifications for event confirmations and updates.

• Admin dashboard with analytics and user management tools.

# 8. Testing and Validation

• Unit Testing: Each module was tested individually using mock data.

• Integration Testing: All modules were integrated and tested for seamless communication.

• User Acceptance Testing: Feedback from sample users was incorporated to enhance usability.

• Database Testing: Queries were tested for accuracy and performance.

# 9. Challenges Faced

• Ensuring real-time data synchronization across user sessions.

• Handling concurrent bookings and avoiding double bookings.

• Implementing secure login without exposing user data.

• Designing an intuitive user interface for a diverse audience.

# 10. Conclusion

The Event Booking Portal successfully addresses the key requirements for a modern event management system. It simplifies the booking process for users and enhances operational control for administrators. The portal is built with scalability and future integration in mind.

# 11. Future Scope

• Integration with online payment gateways for ticketed events.

• Mobile application development for Android and iOS platforms.

• AI-based event recommendations based on user preferences.

• Multi-language and localization support for international use.