Final Year Project Proposal

Project Title:

Smart Events Booking and Venue Management System

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Date of Submission:

Nov 07, 2025.

1. Introduction

Event planning often involves several challenges, such as manually checking venue availability, managing bookings, coordinating payments, and keeping track of client details. These manual processes can lead to errors, delays, and poor customer experiences.

The Smart Event Booking and Venue Management System aims to solve these issues by providing an all-in-one, web-based solution. The platform enables users to seamlessly browse, book, and manage event venues online, while giving venue owners powerful tools to handle reservations, payments, and scheduling efficiently.

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2. Problem Statement

Traditional venue booking and management rely heavily on manual communication (calls, emails, or physical visits), leading to inefficiencies such as:

Double bookings or unavailable venues.

Lack of centralized data management.

Time-consuming payment and confirmation processes.

Poor communication between clients and venue owners.

This project seeks to automate and streamline these tasks through a secure, digital solution that enhances convenience, transparency, and accuracy for all parties.

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3. Objectives

The main objectives of this project are:

1. To create an online platform for users to easily find, compare, and book event venues.

2. To develop a dashboard for venue owners to manage their listings, track reservations, and handle payments.

3. To implement a secure payment gateway that supports multiple methods (Stripe, PayPal, Easypaisa).

4. To provide real-time availability updates and instant booking confirmations.

5. To enhance user satisfaction through features like automated reminders, reviews, and secure authentication.

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4. Scope of the Project

The system will include:

User Module: Venue search, filters (location, price, capacity, amenities), booking, payments, reviews.

Venue Owner Module: Venue registration, dashboard for managing reservations, updating availability, viewing transaction history.

Admin Module (optional future feature): Monitor overall system activity, manage users and venues.

Security: OAuth-based authentication, SSL-secured payments, and role-based access control.

Notifications: Automated email or SMS confirmations and reminders.

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5. Technologies to be Used

Category	Technology
Frontend	HTML, CSS, JavaScript, React.js
Backend	Node.js with Express.js
Database	MongoDB
Authentication	OAuth (Google, Facebook, etc.)
Payment Integration	Easypaisa API local banks
Hosting	GitHub Pages (Frontend) & Cloud Server (Backend)

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6. System Architecture (Overview)

1. Frontend:

Developed using React.js for dynamic user interfaces.

Responsive design for desktop and mobile compatibility.

2. Backend:

Node.js and Express.js to handle API requests and data logic.

Integration with payment gateways and authentication providers.

3. Database:

MongoDB for flexible and scalable data storage.

4. APIs:

Payment APIs (Easypaisa, JazzCash, local banks).

OAuth for secure user login and registration.

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7. Expected Outcomes

A fully functional, responsive web application for event and venue management.

Reduced manual errors and administrative burden.

Improved user convenience with online booking and payments.

Increased visibility and bookings for venue owners.

Real-time insights and reporting for better decision-making.

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8. Project Timeline

Phase Task   Duration

Phase	Task	Duration
Phase 1	Requirement Gathering & System Design	2 Weeks
Phase 2	Frontend & Backend Development	4 Weeks
Phase 3	Integration (Database, Payment, Authentication)	3 Weeks
Phase 4	Testing & Debugging	2 Weeks
Phase 5	Deployment & Documentation	1 Week
Total Duration		12 Weeks (3 Months)

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9. Conclusion

The Smart Event Booking and Venue Management System provides a modern, user-friendly, and secure platform that revolutionizes how venues and clients interact. By automating booking, payments, and communication, it ensures efficiency, transparency, and a smooth digital experience for both parties. This project will serve as a valuable step toward digital transformation in the event management industry.