



An Analysis of Automation in Event Management: A PHP and MySQL-Based Solution

Prof. Diksha Bansod¹, Aaditi Katole², Mitali Nagelwar³,

Janvi Aher⁴, Ujjwal Barapatre⁵, Sameer Chatarkar⁶

Professor Department Of Computer Science And Engineering,

Nagarjuna Institute Of Engineering Technology And Management, Nagpur, Maharashtra, India¹

UG Student, Department Of Computer Science And Engineering, Nagarjuna Institute Of Engineering Technology & Management, Nagpur, Maharashtra, India^{2,3,4,5,6}

Abstract: The Event Management System is an online application created to streamline and automate the organization and management of events. Built with PHP and MySQL and hosted on the XAMPP server, this system offers an effective platform for both administrators and users to coordinate various event-related tasks. Administrators can manage event information, oversee registrations, and keep records through a secure login portal, while users have the ability to easily view available events, register, and receive updates.

The backend database, event_db, is responsible for storing crucial details like user profiles, event schedules, and booking information, ensuring both data integrity and efficient access. The application is developed using HTML, CSS, PHP, and MySQL, with text editors such as VS Code facilitating the development process. The project focuses on a modular design to enhance maintenance and scalability.

Incorporating automation into event management activities decreases the need for manual effort, boosts coordination, and enhances accessibility for both users and administrators. This initiative showcases the effective use of web technologies to simplify real-world event management tasks and offers a dependable solution for organizations of small to medium size.

Keywords: PHP, MySQL, Web Application, Automation, Database Management, XAMPP Server.

I. INTRODUCTION

In today's digital era, the swift advancement of information technology has transformed how organizations plan, organize, and manage events. Traditional methods of event management often depend on manual processes, which can be time-intensive, susceptible to human error, and inefficient when dealing with large volumes of data. To address these issues, the Event Management System (EMS) has been created as an online platform that automates and streamlines the entire event management process. This system enables administrators and users to effectively coordinate and carry out various event-related tasks in a secure and organized way.

The system in question is developed using PHP for server-side scripting and MySQL for database management, with local hosting facilitated by the XAMPP server. It comprises two main components: the Admin Panel and the User Interface. The Admin Panel allows administrators to handle event information, oversee registrations, and keep records through a secure login system. Conversely, the User Interface enables users to browse upcoming events, sign up for participation, and receive notifications or updates. The database, event_db, acts as the system's backbone, storing crucial data such as user profiles, event specifics, and booking information to ensure data accuracy and accessibility. The system is crafted using HTML, CSS, and PHP, with development supported by text editors like VS Code. Its modular and scalable design ensures easy maintenance and the possibility of future upgrades. By integrating automation into event management, the system reduces manual labor, enhances coordination, and improves the user experience. Overall, the *Event Management System* demonstrates how web-based technologies can be effectively used to create an efficient, user-



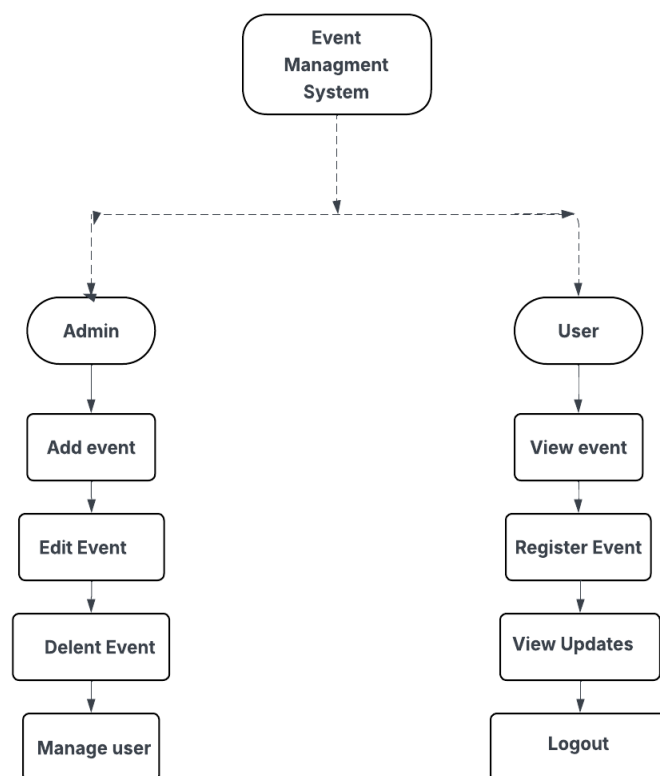
friendly, and reliable platform for managing events, making it a valuable solution for small and medium-sized organizations.

III.METHODOLOGY

The Event Management System was crafted using a structured approach to guarantee precision, dependability, and effectiveness throughout the project's duration. The research was divided into five main stages: requirement analysis, system design, development, testing, and implementation. Each phase was crucial in evolving the project from an idea to a fully operational web-based application.

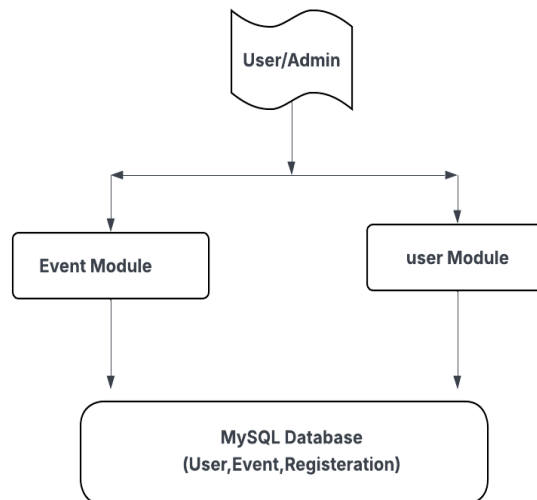
Requirement Analysis: In the initial phase, the system's functional and non-functional requirements were determined. Functional requirements encompassed event creation, user registration, login authentication, and database connectivity. Non-functional requirements focused on system performance, security, usability, and scalability. This analysis was instrumental in defining the system's primary goals and the technology stack to be employed.

System Design: The system's architecture was crafted using a modular strategy to facilitate easy maintenance and expansion. The database schema was created in MySQL, featuring tables for events, users, and bookings. The frontend was designed with HTML and CSS to ensure a responsive interface, while PHP managed server-side logic and data interaction.



Development Environment: The system was developed on the XAMPP platform, which combines Apache, MySQL, and PHP. This setup allowed for local hosting and testing of the web application. VS Code was selected as the main code editor for efficient coding and debugging.

Testing and Implementation: Following development, the application underwent unit and integration testing to confirm the functionality of each module. Particular attention was given to user authentication, event registration, and data retrieval accuracy. The system was deployed locally via http://localhost/Event_Management_System/ and tested across various browsers.



Evaluation: Ultimately, user feedback and performance analysis verified that the system was efficient, user-friendly, and capable of automating event management processes with high accuracy and minimal manual intervention.

IV.MODELLING AND ANALYSIS

The Event Management System was developed and examined using a structured software engineering methodology to guarantee an effective design, precise data flow, and seamless operation. The system's architecture is based on a three-tier model, which includes the presentation layer (frontend), application layer (backend logic), and data layer (database). These layers work together harmoniously to deliver a user-friendly and dependable experience.

1. System Modeling: The system's structure and behavior were depicted using Unified Modeling Language (UML) diagrams. Use Case Diagram: Depicts the interaction between two main actors—Admin and User. The Admin has the ability to add, edit, delete, and view events, while the User can register, view events, and receive updates. Data Flow Diagram (DFD): Illustrates the movement of data between the user interface, server, and database. Information entered by the user (such as registration or login) is processed through the PHP logic layer and either stored or retrieved from the MySQL database. Entity Relationship Diagram (ERD): Outlines the connections among entities like Users, Events, and Bookings. Each user can sign up for multiple events, establishing a one-to-many relationship that ensures efficient database organization and access.

2. System Analysis: During the system analysis phase, the focus was on assessing performance, functionality, and data management. The application was evaluated for speed, accuracy, and reliability during database transactions and user interactions. The MySQL database was optimized with indexing techniques to facilitate faster data retrieval and prevent redundancy. Tests and evaluations demonstrated that the system effectively managed simultaneous user interactions, maintained data integrity, and ensured secure authentication. The modular architecture improved scalability, making it easy to integrate additional features such as email notifications or payment gateways. Overall, the modeling and analysis confirmed that the Event Management System offers a stable, well-organized, and efficient solution for managing digital events.

V.RESULTS AND DISCUSSION

The Event Management System was effectively developed and tested to achieve its aim of streamlining and automating event planning. Built using PHP, MySQL, HTML, and CSS on the XAMPP server, the system demonstrated high performance throughout all testing phases. It offered a well-organized platform for administrators and users to handle events, registrations, and records in real time. The Admin Panel operated efficiently, allowing administrators to create, update, and remove event details, as well as oversee user registrations and access reports. The User Interface enabled participants to explore upcoming events, register with ease, and receive confirmation notifications. Functional and usability testing verified seamless operation across modules, while the login and registration systems provided secure access and protected data privacy. The event_db database managed data effectively, ensuring quick retrieval and reducing redundancy. The connection between the frontend and backend was stable, with precise data synchronization during transactions. User feedback indicated that the interface was intuitive and responsive, making it user-friendly for both technical and non-technical individuals. Overall, the system decreased manual effort, enhanced coordination, and reduced

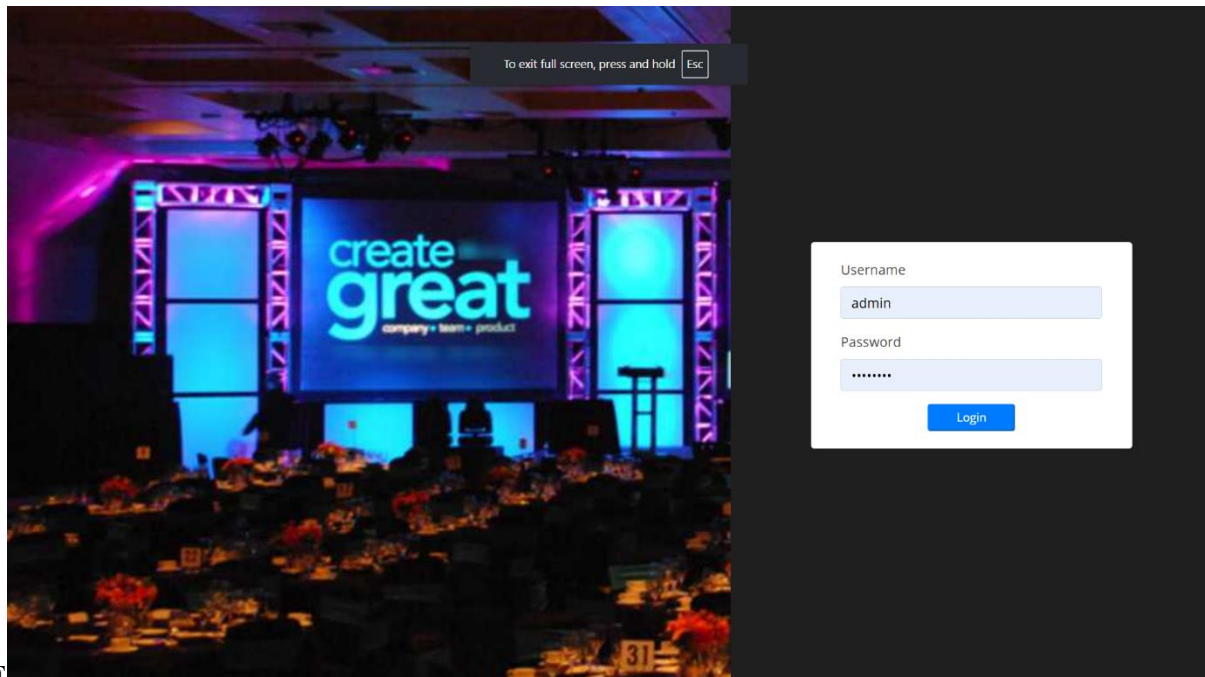


errors linked to traditional event management. Automation boosted productivity and data organization, establishing the platform as an efficient and scalable solution. The results confirm that the Event Management System meets its objectives by offering a dependable, secure, and accessible framework for digital event management, delivering clear advantages for small and medium-sized organizations.

VI.CONCLUSION

The Event Management System was effectively crafted and implemented to offer a streamlined and user-friendly digital solution for event organization and management. The primary goal of the system—to automate the manual processes involved in event management—was successfully accomplished by integrating PHP, MySQL, HTML, and CSS within the XAMPP environment. By providing dedicated interfaces for both administrators and users, the system facilitates seamless communication, easy access to event details, and secure data management. The system effectively tackled the challenges of traditional manual methods, such as time inefficiency, human errors, and data mismanagement. With features like secure login, event registration, and real-time updates, it optimized operations and improved accuracy and accessibility. The event_db database maintained data integrity and supported efficient storage and retrieval, ensuring reliability during continuous use. Tests and user evaluations confirmed that the system performs well in various scenarios, offering a responsive and intuitive interface. Administrators experienced simplified event management and monitoring, while users found the registration and participation process more convenient. In summary, the Event Management System illustrates how web-based automation can enhance the efficiency, reliability, and transparency of event organization. It serves as a practical and scalable tool for small to medium-sized organizations looking to digitalize their workflows. Future improvements, such as online payment integration, email notifications, and mobile compatibility, can further enhance its functionality and usability, making it an even more comprehensive event management solution.

VII.OUTPUT



E



#	Booking Information	Customer Information	Status	Action
1	Venue: Birthday Schedule: Oct 14, 2020 05:00 PM Duration: 1 Night	Booked by: Arjun Singh Email: Arjun12@gmail.com Contact: 9689249677 Address: Sample	Confirmed	Edit
2	Venue: Birthday Schedule: Jun 30, 2025 09:00 PM Duration: 1 Month	Booked by: Sumit Ghoshal Email: Sumitghoshal@gmail.com Contact: 9356195742 Address: Plot No.98, varsha Apartment, staya Sai Baba Society Dattawadi	Confirmed	Edit
3	Venue: Engagement Ceremony Schedule: Aug 16, 2025 01:53 PM Duration: 1.5 Month	Booked by: Mitall Nagelwar Email: Nagelwarmital@gmail.com Contact: 7249646115 Address: Wathoda	For Verification	Edit Delete
4	Venue: Birthday Schedule: Nov 06, 2025 02:07 PM Duration: 3 Days	Booked by: Priya Sharma Email: Priya.sharma@corpmail.in Contact: +91 98765 43210 Address: 45B, Cyber City, Phase 3, Gurugram, Haryana	For Verification	Edit Delete
5	Venue: Cultural Gathering Schedule: Nov 17, 2025 03:00 AM Duration: 5 Days	Booked by: Rohan Kapoor Email: Rohan.k@eventspro.com Contact: +91 99200 11223 Address: A-102, Bandra West, Mumbai, Maharashtra	For Verification	Edit Delete
		Booked by: Ananya Menon		

Eventra Home Venues About

List of Our Event Venues

Engagement Ceremony
Amrut Bhavan 179, N Ambazari Rd, Near University library, Ramdaspath, Nagpur, Maharashtra 440010
For Beautiful Future
Rate Per Hour: 2,800.00
[Book](#)

Birthday
Bhatia Farms Kamptee Road, Bharat Jyoti Society, Dobi Nagar, Bezonbagh 440001 Kushi (Nagpur)
A Birthday Party Is A Joyous Celebration Like Birth Anniversary, cake With Candles, Gifts, food And Entertainment.
Rate Per Hour: 2,500.00
[Book](#)



Eventra

Submit Booking Request

Full Name

Address

Email

Contact #

Duration

Desired Event Schedule

Save Cancel

Home Venues About

Get Together

Chattarpur Farms Outer Ring Road, Tarodi Exit, Village - Dighori, Post office - Temasna, Dighori, Nagpur, Maharashtra 441202

A Get-together Is A Casual Social Gathering Where People Meet To Talk, Eat, And Enjoy Each Other Usually For No Specific Formal Occasion.

Rate Per Hour: 2,200.00

Book

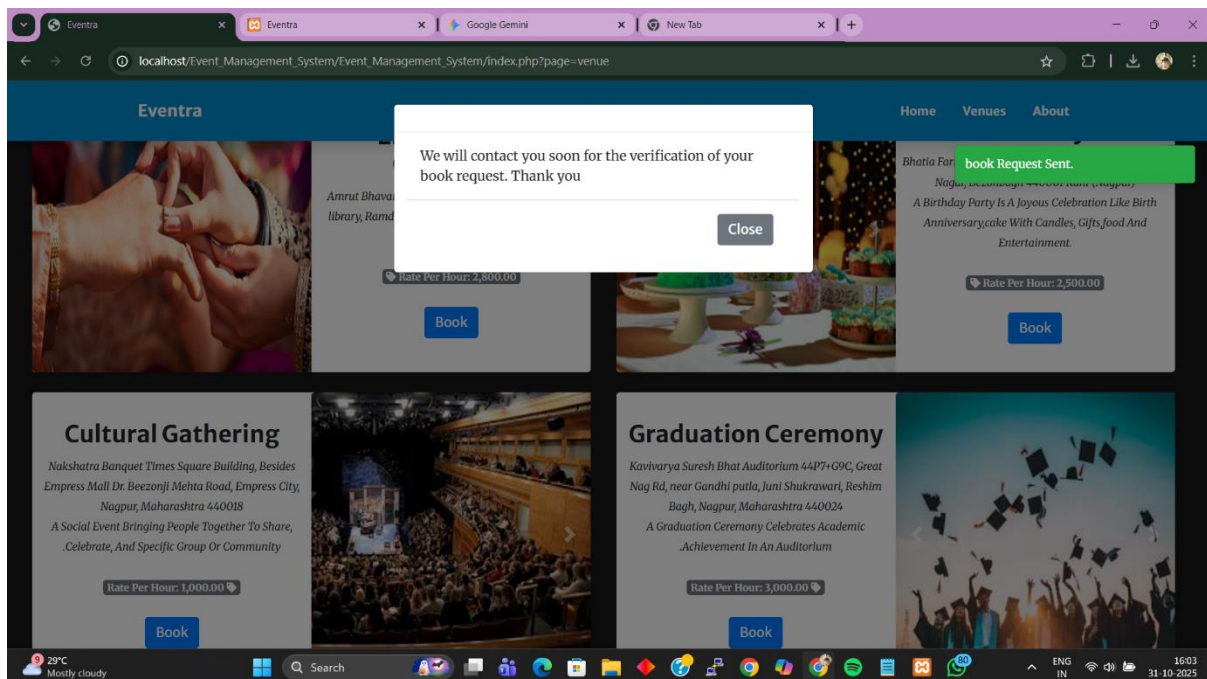
Customize Events

Chitnavis Centre

For Stand Up Comedy And Other Events

Ceremony

Amrut Bhawan 179, N Ambazari Rd, Near University library, Ramdaspath, Nagpur, Maharashtra 440010



REFERENCES

- [1] V. Beal, "PHP (Hypertext Preprocessor) Definition," *Webopedia*, 2022.
- [2] *MySQL 8.0 Reference Manual*, Oracle Corporation, 2023.
- [3] "XAMPP Installation Guide," *Apache Friends Documentation*, 2023.
- [4] "PHP, HTML, and CSS Tutorials," *W3Schools Online Web Tutorials*, 2024.
- [5] R. S. Pressman and B. R. Maxim, *Software Engineering: A Practitioner's Approach*, 9th ed., McGraw-Hill Education, 2020.
- [6] I. Sommerville, *Software Engineering*, 10th ed., Pearson Education, 2016.