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Event Management System

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Abstract-*The Event Management System is designed to organize and manage details of college activities like cultural and technical fests, college day celebrations, workshops, projects and more. It provides information about events, tracks student participation, and keeps records of different departments, sports activities, and college achievements and on this platform, students can create profile and look through the event list and register for events and the event organizers can maintain the event registrations.*

Keywords-College Event Management, PHP, MySQL, Admin Dashboard, Event Registration, Student Coordinator, Staff Coordinator, event Creation, Event Deletion, Contact Page and it is easily accessible**.**

1.INTRODUCTION

An Event Management System (EMS) is a software tool designed to help organize and manage events for colleges and it simplifies the planning process by handling tasks like registration, scheduling and communication, making it easier for organizers to keep everything on track. With features for tracking attendees, managing resources, and sending updates, the Event Management System ensures that each event runs smoothly from start to finish. It also helps reduce the manual work involved, saves time, and creates a better experience for everyone attending.

2. RELATED WORK

[1]The document discusses an "Event Management System," a web-based platform designed to simplify event planning and management. This system allows registered users to select event types, dates, times, locations, and equipment, logging all details in a database. Users receive a receipt upon booking, and admins can access, update, and manage event and vendor details. Key modules include user and vendor registration, event booking, and availability checking .Admins oversee customer and vendor records and can remove vendors with low ratings. Vendors can confirm bookings, manage event logistics, and receive feedback from customers. The system is noted for its user-friendly interface, efficiency in communication, and ability to manage multiple events, making it useful for schools, colleges, and large-scale gatherings like festivals and conferences. Overall, it provides a streamlined approach to organizing events, reducing manual effort, time, and costs.

[2] The project is about developing an Event Management System using Spring Boot, Angular, and MySQL. It aims to streamline the process of organizing events by integrating essential features like event creation, participant registration, booking, and communication into a single platform. The system addresses common challenges in traditional event management, such as fragmented tools, scalability issues, and lack of real-time updates. It includes a user-friendly interface, scalable architecture, and secure authentication methods, such as multi-factor authentication. Additionally, it supports real-time notifications, payment processing through major gateways, and advanced analytics to provide insights into event performance and user engagement. This integrated approach is designed to enhance efficiency, security, and overall user experience for organizers and participants.

[3] This project highlights a review on an event management system proposed by a group of IT students. It details an application designed for organizing and managing various events, such as birthday parties, fundraisers, college festivals, and weddings, using Salesforce as the main technology. The system will use Salesforce's Lightning Web Components for the frontend and Apex programming for the backend. The application aims to simplify event planning by providing features like events registration, profile setup, and a comprehensive list of events with descriptions, dates, and times. It also incorporates an approval system where administrators verify events for security purposes. This system intends to streamline event management by reducing reliance on traditional tools like spreadsheets and offering remote access for convenience.

[4] The document discusses a project on an "Online Event Management System" specifically designed for college students. The system addresses the complexities of organizing and managing events in a college setting,

aiming to simplify tasks for both organizers and participants. The website allows users to create, manage, and join events conveniently, providing essential features like registration, updates, and notifications. Using technologies like Node.js, Express, MongoDB, and Materialize CSS, the platform streamlines event management by allowing organizers to update event details, while participants can easily view and register for events.

[5] This overview describes "Evento" an event management web application that serves as both a marketplace for renting event spaces and a tool for organizing events. Users can list or rent venues (like conference rooms or halls) and manage event-related tasks such as registration, payment, notifications, and reports. Key features include real-time communication, user authentication, and secure payment through a built-in gateway. The system is designed with scalability and security in mind, using technologies like React.js, Node.js, MongoDB, and Web-Sockets for efficient data handling and user interaction.

[6] The analysis introduces a literature review on online event management systems, analyzing various platforms, features, and research on event planning technology. It highlights the advantages of web-based event management, such as centralization, attendee coordination, scheduling, and interactive capabilities. Key components include user-friendly interfaces, automated tasks, and enhanced attendee engagement. The paper compares multiple event management applications (like Eventbrite, Cvent, and Whova), each offering unique features for managing registration, ticketing, marketing, and real-time engagement. Future research directions suggest integrating emerging technologies, improving user experience, and implementing social media for event promotion.

[7] The project focuses on creating a College Event Management System that modernizes and simplifies event organization within an academic environment. It aims to replace traditional manual processes with a web-based platform that streamlines tasks like event creation, participant registration, and automated communication. The system features a user-friendly front-endinterface for students and event managers, and a secure, efficient back-end for data management. Key functionalities include real-time updates, intuitive event registration, and a centralized system for managing college events, improving communication and engagement. Future enhancements might include mobile accessibility, AI-driven recommendations, and support for hybrid events.

[8] The report presents "College Event Management System" is a digital platform designed to streamline college event organization by allowing students, administrators, and the principal to manage events through a centralized system. Users log in with specific roles: students can submit event requests and register for approved events; the principal reviews these requests, approving or rejecting them; and the admin oversees event data and communicates updates. The process begins when students submit event details via a form, which the principal then reviews. Approved events are added to an "Upcoming Events" list where students can register, and all users receive notifications about approvals, rejections, and event schedules. Built with PHP, MySQL, HTML, CSS, and JavaScript, the system automates tasks, reduces administrative workload, and centralizes event information. By enhancing communication, providing real-time updates, and creating role-based access, it makes college event management more efficient, with potential for future upgrades like RSVP options and feedback features to further improve user engagement.

[9] The assessment introduces "Web-Based College Event Management Platform" (WEMP) discussed in the document is a system designed to streamline college event organization and communication. Using modern technologies like Node.js, MongoDB, and Express.js, WEMP provides a centralized platform for managing events, making it easier for students and administrators to handle event details. It includes features like real-time notifications, secure user authentication, and separate dashboards for students and admins. The system allows students to register for events, view details, and receive timely reminders. Admins can post events, update information, and manage feedback. The platform also supports features such as feedback collection and interactive engagement tools. Future plans suggest expanding WEMP with a mobile app, personalized event recommendations, and improved database performance, enhancing accessibility and user experience. Overall, WEMP aims to create a more cohesive and organized campus community.

[10] This synopsis provides an overview of "Event Management System for Educational Institutions" described in the document is a web-based platform designed to simplify event management processes for colleges and universities. It allows event organizers to remotely create, edit, and manage events, as well as view participant lists and feedback. The system has separate modules for admins and users: admins can add or update event details, manage bookings, and oversee user registrations, while users can view events, register, and

give feedback. Built on a three-tier architecture (presentation, application, and data layers), the platform provides a secure and efficient way to handle event information. Key features include centralized data access, real-time updates, feedback collection, and event history tracking. This digital approach reduces paperwork and manual effort, making event coordination more streamlined and accessible for educational institutions.

[11] This appraisal details a study and implementation of an "Event Management System" as an Android app designed to streamline planning and organizing events, particularly educational, medical, and social events. This app allows users to register for events, select dates, and book locations and equipment. Built using Android Studio with a SQL backend, it offers a user-friendly interface for effortless event setup and tracking. Key features include automated data storage, a receipt system for bookings, and admin-client interaction for event customization. The system reduces paperwork and simplifies event management by providing real-time updates, notifications, and an efficient way to handle multiple events. The study highlights the advantages of using a mobile platform, such as saving time, ease of communication, and better accessibility for users managing events on the go. Future improvements could add more interactive features to enhance user experience further.

[12] This exploration highlight "Smart Event Management System" is a computerized platform developed to streamline event planning and management through a series of integrated modules. It includes customer and employee data management, event details, service arrangements, e-card creation, and a website for status checks. Built with Microsoft SQL Server and Visual Studio, the system provides a user-friendly interface that simplifies tasks like adding, updating, or viewing information related to events, services, and participants. Administrators can handle logistics such as location, transportation, and catering through this centralized system, which also allows customers to check event status using a unique ID. The system aims to replace inefficient manual processes, offering enhanced data security, reduced time consumption, and minimal human effort, although it's not optimized for mobile use. Overall, this system improves the efficiency and organization of event management by automating data handling and providing quick access to event information.

[13] This analysis sheds light on "Event Management Applications" and focused on improving the quality and customization of event management services through an Android application. The app addresses challenges in choosing event management options, securing flexible payment methods, and finding reliable vendors. Key features include categorized services for both individual and corporate event planners, a rating and review system for vendor transparency, and in-app messaging for direct client-vendor communication. Users can make bookings via PayPal's API, with a flexible payment structure allowing partial advance payments. The app design prioritizes an interactive and user-friendly interface, enabling users to search, sort, and book. services efficiently. The goal is to create a seamless and customized event planning experience, making event management simpler and more accessible.

[14] This report presents an Android-based event management application designed to enhance the planning and organization of events. This app addresses challenges in traditional event management by offering a customizable, user-friendly platform that connects users with vendors. Key features include a search module for finding and sorting vendors, a review system to build trust through ratings, in-app messaging for real-time communication, and a flexible payment module using PayPal's API. By enabling users to personalize event planning, the application ensures a seamless experience from booking to payment. It leverages Android's accessibility to reach a broad audience, filling gaps in existing event management tools by prioritizing quality, flexibility, and convenience.

[15] This feature explores "Event Management System Using Salesforce" explores the use of Salesforce as a platform to streamline and automate the management of various events, such as birthdays, fundraisers, weddings, and college festivals. This system uses Salesforce's Lightning Web Components for the front-end and Apex for backend processes. It emphasizes a user-friendly GUI that guides users through event registration, profile setup, and event listing management, with each listing verified by an administrator to ensure security. The methodology includes planning, design, development, deployment, and maintenance stages. The architecture is crafted to meet business and user needs, focusing on reliability, scalability, and efficiency. Notable features include secure registration, data management, and accessibility, supporting event organizers in strategic planning and remote management capabilities. The study concludes that using Salesforce for event management can optimize planning processes, incorporate enhanced security, and streamline operations through a comprehensive and centralized platform.

3. PROPOSED WORK

The proposed Event Management System aims to simplify and automate the process of organizing and managing

events, addressing the inefficiencies of traditional manual systems. The system includes three types of users: Admin, Event Organizers, and Participants. The Admin, as the superuser, holds the highest level of authority and is responsible for approving or rejecting event proposals, managing user roles, and generating detailed reports on event performance and participation. Event Organizers can create and manage event details such as schedules, venues, and descriptions, as well as track participant registrations, monitor attendance, and download participant lists for better coordination. Participants can register for events, view event details, receive notifications or reminders, and provide feedback after attending events. The system offers several advantages, including reduced time consumption, enhanced flexibility, improved accuracy, robust security for sensitive data, and a user-friendly interface. Additionally, it provides comprehensive reporting features for analyzing event performance, making it a cost-effective and efficient solution for managing events. Some Advantages of the proposed system:

- Less time-consuming.
- More flexibility for users.
- Easy to manage event workflows.
- Increased accuracy in data handling.
- Enhanced security for sensitive information.
- User-friendly interface for all roles.
- Ability to generate comprehensive events.

3.1.System Architecture

- An architectural diagram is a visual representation that maps out the physical implementation for components of a software system.
- Based on the Event Management System we have come across the following architecture

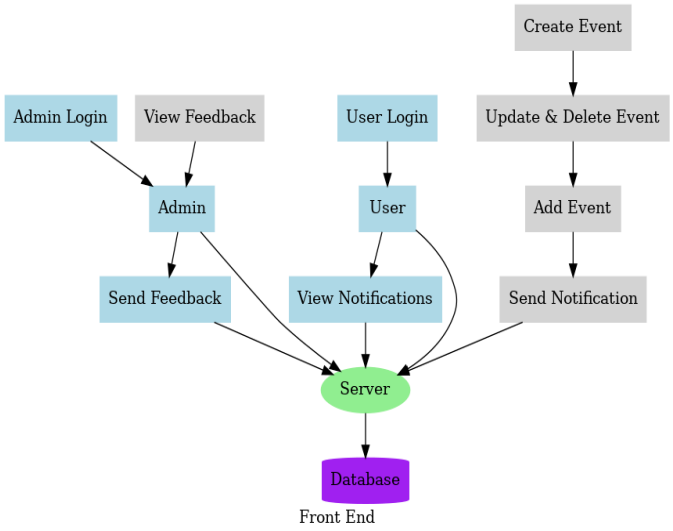

Fig 1.Architecture diagram

The architecture diagram of the Event Management System illustrates the flow and interaction between key components. The **front end** consists of user interfaces for both **admins** and **users**, where users can log in, register for events, and view notifications, while admins can manage events and view feedback. The **back end** is responsible for core functionality like creating, updating, and deleting events, managing feedback, and sending notifications to users. The **server** facilitates communication between the front end and back end, ensuring smooth data processing and secure access control. The **database** stores all the information related to users, events, and feedback, enabling efficient data retrieval and updates. This architecture ensures a smooth and organized flow of information, improving system performance and user experience.

3.2.Class diagram

A class diagram is an illustration of the relationships and source code dependencies among classes in the Unified Modeling Language (UML). The class diagram represents the structure of the Event Management System, illustrating the relationships between key classes. The User class allows users to register for events and provide feedback, while the Admin class manages event creation, updates, and deletion. The Event class contains event details and methods for event registration and management. The Feedback class stores user feedback related to events. Relationships between the classes include users attending events, submitting feedback, and admins creating and managing events, providing a clear structure for the system's operations.

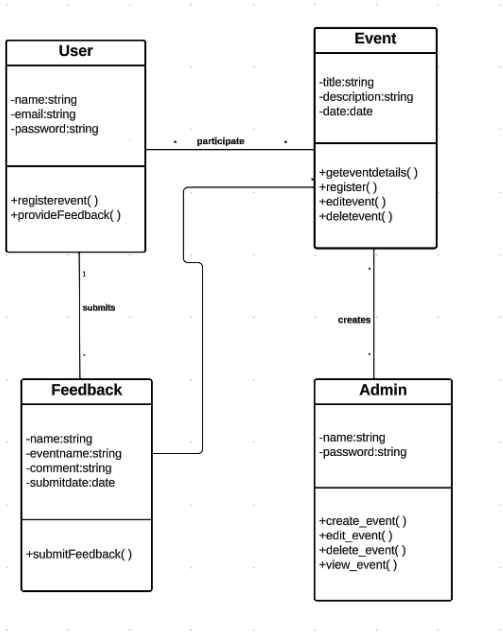

Fig2. class diagram

3.3.Use Case Diagram

A use case diagram at its simplest is a simplest of a user's interaction with the system and depicting the specifications of a user case. A user case diagram can portray the different types of users of a system and various ways that they interact with the system.

This is a Use Case(fig3) Diagram for an Event Management System, depicting the interaction between two actors—Admin and User—and the system functionalities. The admin has access to perform event-related operations like Create Event, Update Event, Edit Event, and Delete Event. The admin can also Send Notifications and Generate Reports. Both the admin and user can Login Event with the inclusion of Username and Password. Users can interact with the system to View Event Details, Register for Events, and provide Feedback. This diagram illustrates the system's core functionalities and their accessibility based on user roles

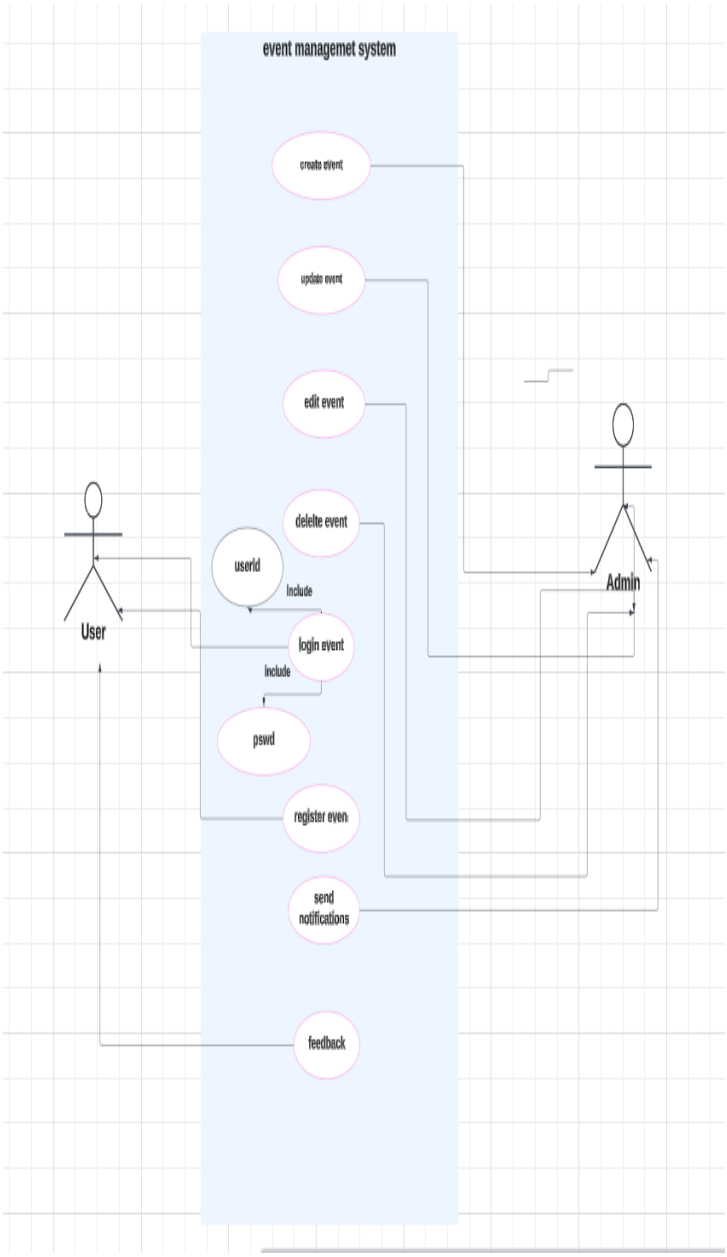

Fig3.Usecase diagram

3.4.Sequence Diagram

A Sequence diagram visualizes interactions between objects or components in a system over time, showing message flow and object lifelines. It helps understand the dynamic behavior of a system, facilitating design validation and identifying dependencies.

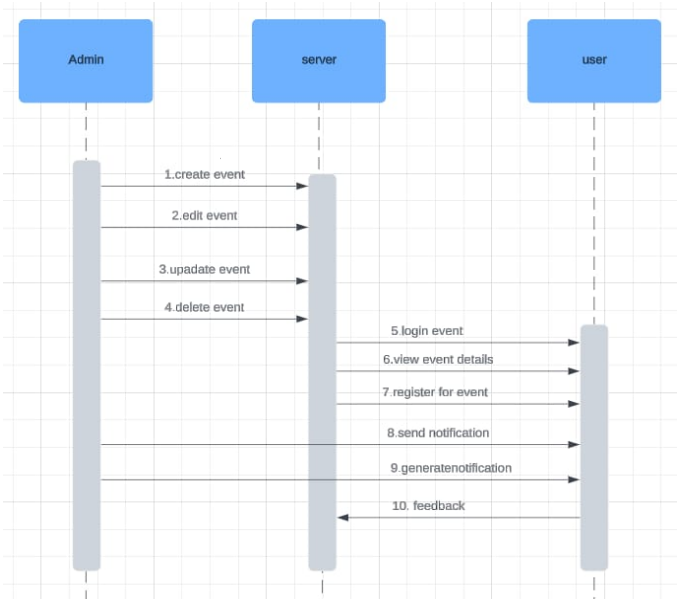

Fig4.Sequence diagram

In the event management project, a sequence diagram illustrates the flow of interactions between users and the system. The process begins with **user registration/login**, where the system validates credentials. **Admins** submit event details, which the system stores in the database. Users browse upcoming events, register for their chosen event, and the system updates the database with registration information. If there are any event updates or cancellations, the admin makes changes, and the system notifies users accordingly. This diagram helps visualize the step-by-step flow of actions within the event management system.

4. RESULT AND INFERENCE

The architecture proposed for the Event Management System leverages modern technologies to provide a robust and efficient platform. Using HTML, CSS, and JavaScript for the frontend ensures a responsive and user-friendly interface, while PHP is utilized for backend logic to handle user interactions and event data processing. MySQL is employed for database management, securely storing event details, user registrations, and admin configurations.

This architecture enhances the overall user experience by automating several key processes, reducing the reliance on manual systems. Users can easily register, browse, and book events, with their information securely stored and readily accessible. Admins can efficiently create, update, and manage events without manual data handling, improving workflow and accuracy. The system also supports automated notifications, ensuring users stay informed about event updates, cancellations, or changes in schedules.

The seamless integration of the platform also extends to event report generation and data analysis, streamlining administrative tasks. Automated communication features help improve attendee engagement and interaction with the system, making it easier for users to stay connected. The architecture not only modernizes event management but also increases operational efficiency, enhances data accuracy, and significantly improves user satisfaction through the strategic implementation of automation.

5. FUTURE SCOPE

The Event Management System has significant potential for further development and expansion, offering multiple opportunities to enhance its features and usability. This system can be implemented across a wide range of institutions, venues, and organizations, supporting both small and large-scale events. Future versions of the system can incorporate additional functionalities to enhance user experience and streamline event management processes.

Several areas for future development and improvement include:

1.Enhanced User Experience: Continuously refining the user interface to ensure it is intuitive, responsive, and accessible across various devices, including mobile platforms. Improved navigation, better event search features, and personalized user dashboards will further enhance the system's usability.

2.Integration with Emerging Technologies: The system can be integrated with emerging technologies such as Artificial Intelligence and Machine Learning. AI can be used to provide personalized event recommendations to users based on their preferences and past behavior. Machine Learning could help predict event attendance patterns, enabling better planning and resource management for event organizers.

3.Mobile App Enhancements: Expanding the functionalities of the mobile application to include features such as push notifications, real-time updates, and in-app messaging. This will improve communication between users and event admins, making it easier for users to stay informed about event details and updates.

4.Advanced Analytics and Reporting: Future versions of the system can include advanced analytics tools to track user engagement, event attendance, and overall system performance. These insights can help event organizers

optimize their events, make data-driven decisions, and improve future event planning.

5.SMS and Email Integration: The system currently lacks SMS integration, but this can be added to send instant notifications to users regarding event updates, registration confirmations, or cancellations, improving communication.

6.Social Media Integration: Adding the ability to share event details on social media platforms can help boost event visibility and encourage user engagement. This feature will also enable users to share their event experiences, fostering a community around the events.

7.Continuous Improvement: The system will benefit from regular updates and improvements based on user feedback and evolving requirements. By embracing agile development and usability testing, the system can adapt to changing user needs and technological advancements.

By exploring these potential avenues for future development, the Event Management System will be able to stay ahead of the competition, adapt to evolving user needs, and continue providing value to both users and administrators.

6.CONCLUSION

The College Event Management System effectively streamlines the organization and management of events within educational institutions. By automating core tasks like event registration, scheduling, and notifications, it simplifies processes for administrators, student organizers, and attendees alike. This system enhances engagement by making events more accessible and organized, contributing to a vibrant campus life. Additionally, the system's role-based access and efficient tracking ensure that each user can perform their specific tasks with ease and accuracy. Survey findings indicate that the system improves operational efficiency and user satisfaction, meeting the growing demand for digital solutions in event management. Looking forward, further enhancements such as mobile accessibility, advanced analytics, and personalized notifications could make the system even more robust and adaptable to future needs in campus environments."

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