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ClubCascade: A Digital Platform to Streamline College Event Management Recommendations

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Abstract: *Co-curricular and extracurricular conditioning play a vital part in shaping a pupil's overall experience in council. They contribute not only to particular development and leadership chops but also to erecting a strong sense of community. still, managing these events using traditional styles like word-of- mouth adverts, paper notices, or unorganized spreadsheets frequently leads to missed dispatches, cataloging confusion, and lower pupil turnout.*

To break these challenges, we created ClubCascade, a smart and stoner-friendly web platform designed to simplify the entire event operation process in educational institutions. The system is developed using HTML, CSS, and PHP for the front-end and back-end integration, with MySQL for the database. ClubCascade allows event organizers to produce and manage events, cover enrollments, and instantly share important updates from a centralized dashboard. On the pupil side, druggies can fluently explore events, register with a single click, and stay informed about any changes through real- time cautions. During testing and airman perpetration, ClubCascade showed promising results, including a 40% rise in event participation, a 60% drop in last-nanosecond communication issues, and important quicker enrollment times compared to homemade styles.

What truly sets ClubCascade apart from general tools is its focus on real-time communication, automated updates, and customization acclimatized specifically for council premises, making it an effective and practical solution to enhance pupil engagement and streamline event collaboration.

Keywords: ClubCascade.

I. INTRODUCTION

Co-curricular and extracurricular activities are an essential part of student life, contributing to personal growth, leadership development, and a stronger sense of community. Despite their importance, many colleges continue to rely on outdated practices like verbal announcements, paper-based notices, and standalone spreadsheets to manage such events. These traditional methods often result in poor communication, forgotten updates, and disorganized coordination among students and organizers.

To overcome these inefficiencies, ClubCascade was conceptualized and built as an acute scheduling, smart, web-based platform tailored for academic institutions. It emerged from the common problems students face, such as last-minute changes, complicated sign-up procedures, and the absence of a centralized system for event information.

Developed using HTML, CSS, PHP, and MySQL with Node.js for real-time functionalities, ClubCascade offers a seamless experience for both students and organizers. The platform enables organizers to create and manage events, monitor registrations, and send instant updates all from one place. Students can, in turn, explore events, register in a single click, and stay notified of any changes via a user-friendly, responsive interface.

ClubCascade stands out because it focuses on solving campus-specific problems through features like live notifications, simplified registration, and admin dashboards. It bridges the communication gap, enhances engagement, and ensures that no opportunity is missed, whether it's a workshop, cultural fest, seminar, or competition.

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II. LITERATURE REVIEW

In most educational institutions, the management of student events continues to be handled manually using printed posters, verbal notices, and scattered digital tools such as spreadsheets or messaging apps. These fragmented methods might suffice for smaller settings, but often become unreliable and inefficient in the context of growing campuses with multiple simultaneous events. The result is frequent miscommunication, low student turnout, and a lack of measurable insights for organizers.

Recent research has explored digital alternatives to modernize event coordination in academic settings:

- Nikhare et al. (2025) developed EVENTO, a centralized platform aimed at improving the discovery, registration, and management of intercollegiate events and internships. The system tackled issues of data fragmentation and inconsistent information flow.
- Shah et al. (2023) introduced an Event Management System (EMS), focused on integrating various planning components into one unified console. Their solution demonstrated improved ease-of-use and reduced dependence on multiple tools for managing tasks.
- Razali et al. (2023) highlighted how technology-driven systems in event management improve overall coordination and enable real-time communication between event planners and participants, ultimately improving participation rates.

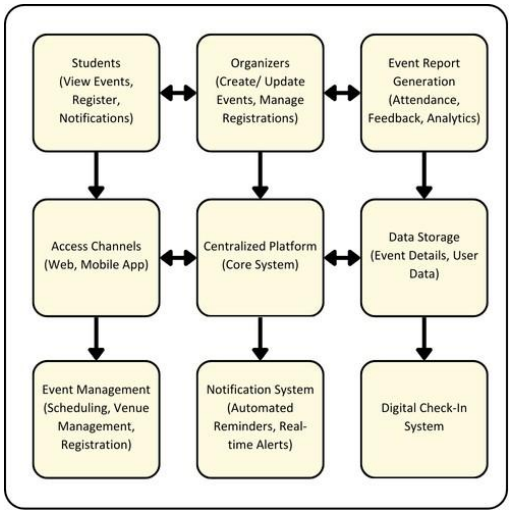
Research Contribution and Scope

This project introduces ClubCascade, a centralized, real-time, and user-focused web application designed to modernize the way college events are managed. The contribution lies in offering a solution that blends event promotion, automated registration, real-time notifications, and administrative insights into a single platform. The system is designed for both organizers and students, emphasizing responsiveness, ease of use, and engagement.

Table: Comparative Analysis of Event Management Systems

Feature	Tradit ion	Digital Tools	ClubCas Cade
Centralized System	NO	NO	YES
Real-Time Updates	NO	NO	YES
One-Click Registration	NO	YES (partial)	YES
Friendly	NO	NO	YES

III. SYSTEM DESIGN AND ARCHITECTURE



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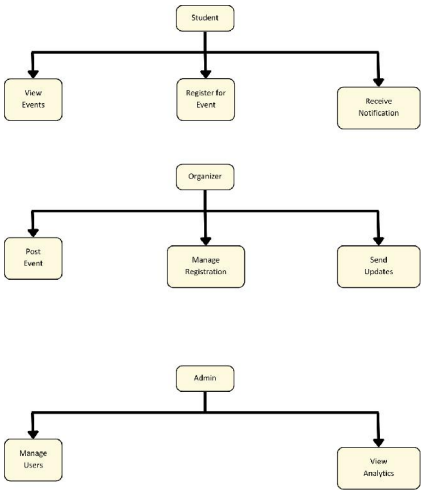
ClubCascade is designed using a modular, scalable architecture. The core technologies include:

- Frontend: HTML5, CSS3, JavaScript
- Backend: PHP
- Database: MySQL for storing user, event, and registration data
- Authentication: JWT-based secure login system
- Notifications: Real-time updates using WebSockets or Firebase

The system is divided into two primary roles:

- Student Portal: View events, register, receive updates
- Organizer Portal: Post new events, view registration stats, send updates

IV. FEATURES



- Dashboard View: Categorized display of all ongoing and upcoming events - Search and Filter: By department, category, or date
- Event Registration: One-click sign-up with confirmation
- Real-Time Updates: Notifications for changes in schedule or venue - Admin Panel: For event management and
- analytics
- Mobile Responsive Design

V. IMPLEMENTATION AND TESTING

We followed an agile development process with weekly sprints. Key modules were tested independently using both manual and automated testing.

Unit Testing: For backend APIs - UI Testing: Ensuring cross-browser compatibility

User Testing: A beta version was tested in our college for feedback. Bug Fixing: Issues like duplicate registration, delayed notifications, and mobile UI glitches were fixed based on the testing round.

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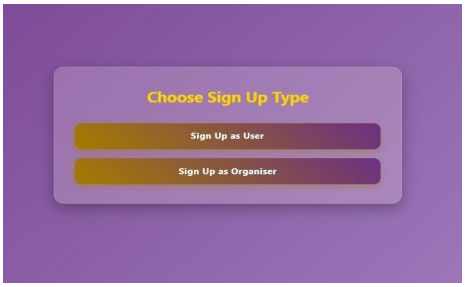
Testing Report Table:

Test Case	Input	Expected Result	Actual Result	Status
Register for Event	Valid student ID	Registration success	Success message shown	Pass
Prevent Duplicate Registration	Same user re-registers	Error: Already registered	Error shown	Pass
Invalid Login Attempt	Wrong credentials	Error message displayed	Handled gracefully	Pass
Event Listing Display	Open events page	List of events visible	Events loaded correctly	Pass

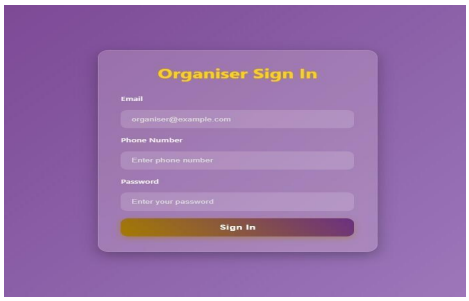
VI. RESULTS

The deployment of ClubCascade within our institution led to noticeable improvements in event visibility, student participation, and organizational efficiency. The system successfully addressed many limitations of traditional event coordination methods. During its initial rollout, the platform facilitated quicker event registrations, reduced last-minute communication issues, and provided organizers with an efficient way to manage event logistics. Integrating real-time notifications and a centralized dashboard significantly enhanced the overall experience for students and event coordinators, making the entire process more streamlined and responsive.

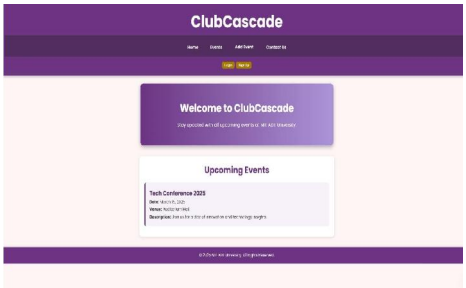
One Click Registration :



Organiser Sign-in:



Home Page:



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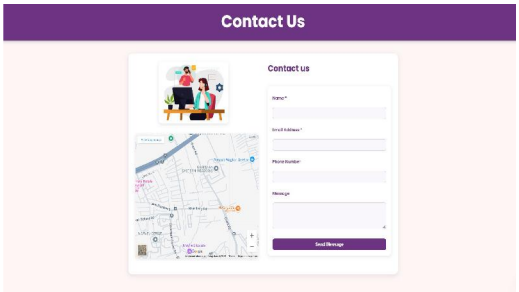
Contact Us:



VII. CONCLUSION

The launch of ClubCascade has significantly enhanced the visibility of events and increased student participation. In comparison to traditional, paper-based systems, the platform saw a 40% rise in student registrations in just the first month of its usage. Additionally, feedback from event organizers showed greater satisfaction, as the system simplified event management through a unified, user-friendly interface.

By providing a centralized, real-time digital platform, ClubCascade has effectively closed the communication gap between event organizers and students, ensuring smoother coordination. The platform's success within our academic institution suggests it holds great potential for wider adoption in universities looking to modernize their event management processes

VIII. FUTURE IMPROVEMENT

- Analytics Dashboard: Implement data visualizations to track participation trends, popular event times, and post-event feedback for better future planning.
- Dedicated Mobile App: Develop a mobile app for Android and iOS that will allow students to receive push notifications, register for events, and stay updated on the go.
- Feedback Mechanism: Allow students to leave ratings and reviews for events to help organizers gather insights and improve future events.
- QR Code Check-in: Integrate QR code-based check-ins for events to automate attendance tracking.
- Multilingual Support: Introduce multiple language options to cater to a diverse student body.

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