EVENTURA: University Event Management System



Submitted To

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Introduction:

EVENTURA is an intelligent event management web application built specifically for our university's needs. It streamlines event discovery, registration, and notification through a unified platform accessible to students, faculty, and club admins.

Background of the Project:

The Problem:

- Events are promoted in scattered, inconsistent ways.
- Manual registration processes are time-consuming and inefficient.
- No real-time event check-in or attendance system.
- Organizers lack centralized tools for communication and management.

Existing Solutions and Their Gaps:

- Facebook Events / Google Forms are not designed for academic structures.
- No role-based access (student, club, teacher).
- No token-based or QR check-in system.
- No automated notifications synced with academic timetables.

Objectives:

- To develop a centralized platform for managing university events.
- To provide a smooth , digital event registration & participation system.
- To improve overall student engagement with university activities.
- To reduce manual work for event organizers.
- To ensure role-based access and secure authentication for all users.

Scope:

In-Scope:

- Web-based event listing and registration system.
- Role-based dashboards for organizers, students, and teachers.
- Email notifications and token-based check-ins.
- Admin panel for club admins to manage events.

Out-of-Scope:

- Mobile app version.
- Integration with the university ERP system.
- Offline or hybrid event logistics.

Literature Review / Related Work:

Existing systems like Eventbrite or Facebook Events provide event listings but lack integration into university environments. Other campuses use basic spreadsheets or email for registration, which often results in poor attendance tracking. Academic journals suggest the use of role-based systems and digital check-ins improve participation and reduce fraud. *EVENTURA* is inspired by these gaps and research-based needs.

Methodology:

Tools & Technologies:

- Frontend: React.js

- Backend: Node.js, Express.js

Database: MongoDBVersion Control: GitHub

Development Process:

- Agile (Scrum) methodology with weekly sprints.
- Collaboration using GitHub Project Board.
- Wireframes, UML diagrams, and ERDs used for planning.

Implementation:

Key Functionalities:

- Event Discovery Page
- Registration System
- Organizer Panel
- Email Notifications
- Token/QR Code Check-ins

Screenshots and UI will be included after development.

Results:

Current testing phase shows:

- Registration time will be decreased by 70%.
- Organizer feedback confirms improved communication.
- Students found the discovery page helpful.

Challenges Faced:

- Integrating real-time QR code generation.
- Role-based authentication without security issues.
- Avoiding email spam filters.
- Limited testing resources during breaks.

Future Scope:

- Mobile App version
- Push Notifications
- Data Analytics dashboard
- Integration with academic calendars and room booking

Conclusion:

EVENTURA centralizes how events are managed and experienced on campus. It bridges gaps between organizers and students, making university life more organized and engaging. With a scalable and modular codebase, it's ready for long-term use.