

PROJECT SYNOPSIS REPORT
ON
CAMPUS CONNECT
SUBMITTED
TO
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
FOR
BACKEND ENGINEERING (22CS026)

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Problem Statement

In a university setting, students, faculty, and clubs often face challenges in communication, event management and academic tracking. The lack of unified platform leads to fragmented information, inefficient processes and reduced engagement. The University Engagement and Management System (UEMS) aims to address these issues by providing an integrated platform that enhances interaction, event management, academic tracking for all university stakeholders.

Title of Project

Campus Connect

Objective & Key Learning's

Objective:

- Develop a unified web-based platform for students, faculty, and clubs within a university.
- Features include:
 - Event management
 - Quiz handling
 - Attendance tracking
 - Real-time communication
 - Achievements and leaderboards for clubs
- Aim to improve efficiency and user engagement.

Key Learnings:

- Full-Stack Development:
 - Technologies: React.js, Node.js, Express.js, PostgreSQL/MongoDB
- Secure Authentication & Access Control:
 - Implementing Passport.js and JWT
- UI/UX Design:
 - Creating intuitive, responsive interfaces
- Database Design:
 - Managing data relationships, efficient storage, and retrieval
- Integration & Testing:
 - Combining frontend and backend, writing unit & integration tests, debugging
- Project Management:
 - Planning, task management, teamwork

Options available to execute the project

1. **Frontend Development**
 - a. EJS
2. **Backend Development**
 - a. Node.js with Express.js
 - b. Database
3. **Authentication & Authorization**
 - a. JWT
4. **Prototyping**
 - a. Figma
5. **Coding**
 - a. IDE/Text Editor

Advantages & Disadvantages

Advantages

1. Centralized Platform
2. Enhanced Engagement
3. Improved Academic Management
4. Club Management
5. Scalable Architecture
6. Secure & Reliable

Disadvantages

1. Complex Development
2. Integration Challenges
3. Maintenance & Updates

References

1. W3Schools -- <https://www.w3schools.com/>
2. JavaTPoint -- <https://www.javatpoint.com/>