Project Synopsis

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Div : B

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Project Title : Campus Connect

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Campus Connect

1. Introduction

- The Campus Connect is a unified digital platform designed to bridge the communication gap between students, faculty, and administration in a college or university.
- It provides real-time access to important announcements, academic schedules, events, and resources — all from a Web application. The app aims to simplify campus communication, reduce dependency on physical notice boards, and ensure students never miss critical updates.

2. Objectives

- To create a centralized platform for all campus-related information.
- To provide real-time notifications for events, timetables, results, and news.
- To allow faculty and admins to post notices directly through a backend panel.
- To offer student engagement features such as event registrations, polls, and chat.
- To ensure secure authentication and role-based access (Admin, Faculty, Student).

3. Problem Statement

- **Traditional methods of sharing information in colleges rely on:**
  - Physical notice boards, which are inefficient.
  - Email or WhatsApp groups, which are unorganized.
  - Delays in communication between departments.

  There is a need for a single, digital, interactive system to improve communication flow and accessibility.

4. Proposed Solution

- The Campus Connect provides:
- A Web-first platform accessible to all stakeholders.
- Push notifications for instant updates.
- Event registration & tracking modules.
- Admin panel to post, edit, and delete notices/events.
- Student dashboard to view announcements/events.
- Optional push notifications for updates.

5. System Architecture

- **Frontend (Web Portal):**
  - Developed using Html,css (cross-platform).
  - Clean UI for students, faculty, and admins with role-based navigation.
  - Integrated Firebase/REST APIs for real-time data sync.
- **Backend (SpringBoot + hibernate + MySql):**
  - RESTful APIs for data access.
  - JWT Authentication for security.
  - Admin dashboard (React/Next.js optional) for posting announcements.

6. Technology Stack

- **Frontend (Web Application): HTML/CSS**
- **Backend : SpringBoot + Hibernate + MySql**
- **Authentication: Firebase Auth / JWT**
- **Notifications: Firebase Cloud Messaging (FCM)**
- **Version Control: Git + GitHub**

7. Hardware & Software Requirements

Hardware Requirements:

Component	Minimum Requirement	Recommended Requirement
Processor	Intel i3	Intel i5 or above
RAM	4 GB	8 GB or more
Storage	500 GB HDD	1 TB SSD

Software Requirements:

Component	Version / Details
OS	Windows 10 / macOS / Linux
IDE	Visual Studio Code
Database	MySql / Firebase
Backend	SpringBoot/ Hibernate
Frontend	Html/Css
Browser	Chrome / Firefox / Edge

8. Future Enhancements

- Integration with college ERP systems (for marks, attendance).
- AI Chatbot for student query resolution.
- Offline mode for accessing saved announcements.
- Integration with Google Calendar or Outlook.
- Advanced Analytics Dashboard for administrators.
- Attendance tracking and academic schedules