Annexure I (For Project Proposal for BEE)

1. Project Statement: College Management System

   In this Project, we are going to develop a comprehensive College Management System with the following features:

   - Multi-role user system (Student, Teacher, Management/Admin)

   - Attendance tracking and management

   - Module sharing and access

   - Leave application and approval system

   - Update section for college-wide announcements

   - User-specific dashboards and controls

2. Approximate duration (in hours) to complete the project: 4 months

Month One August:

   - (1-2 week) Frontend Design and User Interface

   - (3-4 week) User Authentication and Role-based Access Control

Month Two September:

   - (1-2 week) Student Dashboard and Functionality

   - (3-4 week) Teacher Dashboard and Functionality

Month Three October:

   - (1-2 week) Management/Admin Dashboard and Functionality

   - (3-4 week) Attendance System and Module Sharing

Month Four November:

   - (1-2 Week) Leave Application and Approval System

   - (3-4 week) Update Section and Final Integration

3. Proposed Project In charge: Preenu Mittal

4. Team Members along with roll no's:

   1. Baibhav Kumar – 2210991433

   2. Azimushan Khan – 2210991432

   3. Gaurang batra - 2210991456

5. Check Points:

   1. Does the project statement result in a product? If yes, what type of product? Yes, a web-based college management system

2. If it is a product, can a prototype be made, if not, what is it, which we can produce that our teachers can evaluate? Yes, a functional prototype can be made

3. Does the project statement use multiple concepts to achieve the outcome? (yes/no) Yes

4. Does it have enough for our team members to do sufficient amount of work? (yes / no) Yes

6. Technical Nodes

Subject / Area / Topic	Technical Nodes
Frontend development	React , Tailwind css, shadcn ui
Backend development	Node.js, Express.js, Mngodb
Mongodb auth	jwt
State management	Zustand | Restful api
Version control	Git, GitHub

7. Prerequisites (in terms of knowledge, concepts and material) for doing the Project:

- Full-stack Development Skills: HTML, Tailwind, JavaScript, React, Node.js, MongoDB, appwrite/kinde

- API Integration and Development

- Database Design and Management

- Authentication and Authorization concepts

- State Management in React applications

- Responsive Web Design

8. Material that may be required to make the project and where it might be available

- Development Tools and Software: VS Code, Postman

- Programming Libraries and Frameworks: Next js, Node.js, Express.js, Mongoose

- APIs and Services: JWT for authentication

- Hosting and Deployment Platforms: Vercel/ aws lambda

9. What could be the total cost of the project? [To be estimated based on hosting and any paid services required]

10. Resources available to us:

- Technical Infrastructure: Personal computers, internet connection

- Version Control: GitHub

- Design Tools: Figma (free tier)

- Hosting: Vercel(free tier)/ aws lambda(paid tier)

- Development Environment: Local development servers

User Roles and Functionalities:

1. Student:

- View personal attendance

- Access modules shared by class teachers

- Apply for leave

- View the update section (common for all students)

2. Teacher:

- Manage attendance for assigned classes

- Share modules with students

- View student profiles and attendance records

- Access the update section

3. Management/Admin:

- Approve or reject student leave applications

- Post updates in the update section

- Access all functionalities available to students and teachers

- Manage user accounts and roles

- Generate reports on attendance and module completion

This college management system will streamline administrative tasks, improve communication between students, teachers, and management, and provide a centralized platform for academic activities.