### **Project Title: Pro Track(A College Project Tracking System)**

**Date: 30-11-2024**

**Time: 8:45pm**

### **Objective:**

To streamline the management and tracking of student projects in colleges by providing a unified platform for communication, progress tracking, and submission management.

### **Key Features:**

#### **1. Role-Based Access:**

* **Student:** Submit project ideas, update progress, ask questions, and view instructions/deadlines.
* **Project Guide (Teacher):** Review project ideas, set deadlines, provide feedback, and answer student queries.
* **HOD:** Monitor all projects, provide approvals, and oversee progress.

#### **2. Project Lifecycle Management:**

* **Idea Submission:** Students submit project ideas for review and approval by the teacher or HOD.
* **Phase Tracking:** Track phases like proposal approval, design, implementation, testing, and final submission.
* **Deadlines:** Teachers assign deadlines for each phase, and reminders notify students of approaching deadlines.

#### **3. Communication Module:**

* **Teacher-Student Interaction:** Teachers can provide instructions or comments, and students can raise doubts.
* **Notifications:** Automated notifications for deadlines, comments, or phase completions.

#### **4. Progress Dashboard:**

* Students: See overall project progress and upcoming tasks.
* Teachers: View each student’s progress and provide feedback.
* HOD: Overview of all projects at different stages.

#### **5. Document Management:**

* Upload and manage documents like reports, diagrams, and code files at each phase.

#### **6. Approval System:**

* Teachers approve each phase before the project progresses to the next stage.

### **System Workflow:**

1. **Registration:**
   * Students and teachers register/log in with role-based credentials.
   * HOD assigns project guides to students.
2. **Idea Submission and Approval:**
   * Students submit project ideas.
   * Teachers and HOD review and approve/reject the ideas.
3. **Phase Progress Updates:**
   * Students update their progress for each phase (e.g., "50% of Implementation Complete").
   * Teachers review and approve progress or request changes.
4. **Deadline Management:**
   * Teachers set deadlines for each phase.
   * Notifications are sent to students and teachers about upcoming or missed deadlines.
5. **Communication and Guidance:**
   * Teachers provide guidance and comments.
   * Students raise doubts or submit queries.
6. **Final Review and Submission:**
   * Students submit the final project for review.
   * Teachers approve the submission, and HOD provides final approval.

### **Modules:**

1. **Authentication Module:**
   * Role-based login for students, teachers, and HOD.
2. **Student Module:**
   * Submit and update project ideas.
   * Update phase progress.
   * View deadlines and instructions.
   * Ask queries.
3. **Teacher Module:**
   * Approve/reject project ideas and phases.
   * Set deadlines and provide feedback.
   * Communicate with students.
4. **HOD Module:**
   * Assign teachers to students.
   * Monitor progress of all projects.
   * Approve final submissions.
5. **Dashboard Module:**
   * Display progress metrics for students, teachers, and HOD.

### **Enhancements for Professionalism:**

* **Analytics Dashboard:** Provide charts and graphs for project progress.
* **Export Reports:** Allow users to export project summaries as PDFs.
* **Offline Support:** Cache data for offline access and sync when online.