**Title: Pro Track**

**Description**: A college project tracking system.

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

**Abstract**

The Project Tracker System is a Flutter-based application designed to streamline the management of college student projects. The system enables students to submit project ideas, update progress, and upload documents for review in three structured phases. Teachers can set deadlines, provide instructions, and review submissions digitally, reducing manual effort and improving efficiency. Automated notifications ensure students stay updated on deadlines, while a dashboard allows the Head of Department (HOD) to monitor overall progress and student performance. By replacing the traditional manual system with a centralized platform, this system enhances communication, accountability, and convenience for students, teachers, and administrators.

**Existing System**

In the current system, project management in college departments is primarily manual. The process is highly dependent on direct communication and physical document submissions, which leads to inefficiencies and challenges for students, teachers, and the administration.

Existing System Workflow

1. Teachers inform students manually about the project process and requirements, such as:
   * Project start date.
   * Finding and submitting project topics and technology choices.
   * Declaring if the project is individual or done through external project centers.
2. Students submit the above details manually for teacher verification.
3. The project process involves three review phases:
   * In each phase, students submit physical documents such as:
     + Project synopsis.
     + Table design.
     + Data Flow Diagrams (DFD).
     + Other related documents.
   * Teachers review these documents and provide feedback manually.
4. Deadlines and review dates are communicated verbally or via informal means, leading to potential miscommunication or missed deadlines.
5. The HOD/Admin faces challenges in monitoring the project’s overall status or assessing students’ performance as they depend on teachers for updates.

Disadvantages of the Existing System

1. Prone to Miscommunication:
   * Deadlines and instructions are given manually, making it easy for students to miss critical updates.
2. Time-Consuming:
   * Teachers manually review documents and provide feedback, consuming significant time and effort.
3. Dependency on Availability:
   * Progress depends on the availability of both teachers and students for meetings and reviews.
4. Lack of Centralized Tracking:
   * HOD/Admin cannot efficiently track the progress or performance of all students in real time.
5. Paperwork and Documentation Issues:
   * Manual submissions increase the risk of misplaced documents and inefficiencies in organizing them.
6. Limited Accountability:
   * No automated mechanism to remind students of deadlines or track their adherence to instructions.

**Proposed System**

The proposed system is a **Project Tracker System** developed in Flutter. It aims to digitize and streamline the project management process, ensuring efficient communication, tracking, and documentation for all stakeholders involved.

**Key Features and Workflow**

1. **Centralized Platform:**
   * Students, teachers, and HOD/Admin can access a single platform to manage projects.
2. **Automated Notifications and Reminders:**
   * Students receive reminders for deadlines and review dates.
   * Teachers can set automated notifications for review feedback and instructions.
3. **Digital Submission and Review:**
   * Students upload project-related documents (e.g., synopsis, table design, DFD) directly to the system.
   * Teachers review and provide feedback digitally, reducing paperwork.
4. **Phase-Wise Progress Tracking:**
   * The system tracks project progress in phases (e.g., three review stages).
   * Students update their progress regularly, and teachers approve/reject each phase.
5. **Communication Module:**
   * Teachers can provide instructions and feedback directly through the platform.
   * Students can ask questions or seek clarifications.
6. **HOD/Admin Dashboard:**
   * Allows real-time monitoring of all projects and student performance.
   * Provides analytics and summary reports of project statuses.

**Advantages of the Proposed System**

1. **Improved Communication and Reminders:**
   * Automated notifications eliminate the risk of students missing deadlines.
2. **Efficiency and Time-Saving:**
   * Digital submissions and reviews save significant time for teachers and students.
3. **Real-Time Tracking:**
   * Both teachers and HOD/Admin can monitor the progress of all projects in real time.
4. **Centralized Document Management:**
   * Digital storage of project documents ensures easy accessibility and organization.
5. **Enhanced Accountability:**
   * Deadlines, progress updates, and teacher feedback are recorded, promoting accountability among students.
6. **Scalability:**
   * The system can handle multiple students, projects, and phases seamlessly.
7. **Convenience:**
   * Reduces dependency on in-person meetings, offering flexibility for students and teachers.

**Module Descriptions**

**1. Admin (HOD) Module:**

* **Role:** Oversees and manages the overall functioning of the project tracking system.
* **Responsibilities:**
  1. Manage user accounts for teachers and students.
  2. Assign project guides (teachers) to students or groups.
  3. Monitor all projects, including progress and deadlines, through a centralized dashboard.
  4. Access and review detailed analytics of student and teacher performance.
  5. Provide approvals at key project milestones or for final submissions.

**2. Teacher Module:**

* **Role:** Acts as a guide for students, managing the progress and quality of assigned projects.
* **Responsibilities:**
  1. Review and approve/reject project ideas submitted by students.
  2. Set deadlines for various project phases and provide instructions.
  3. Review documents like the project synopsis, table designs, and DFDs submitted by students.
  4. Provide phase-wise feedback and approve/reject phase completions.
  5. Communicate with students through a dedicated interaction module to address queries and provide guidance.

**3. Student Module:**

* **Role:** Allows students to manage and update their projects systematically.
* **Responsibilities:**
  1. Submit project ideas for review and approval by teachers.
  2. Upload documents like synopsis, table design, and DFDs for each review phase.
  3. Receive automated notifications for deadlines, teacher feedback, and instructions.
  4. Update project progress and submit the final project for review.
  5. Use the communication module to seek clarifications or ask questions from teachers.