

## **Hackathon Challenge: University Web Portal**

**Objective:** Develop a dynamic and user-friendly university portal that includes the following key functionalities:

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### **1. University Home Page (UI/UX Design)**

- **Description:**
  - Design and implement a visually appealing homepage for a university that provides quick access to essential resources for students and faculty.
  - The homepage should include:
    - University logo, name, and motto.
    - Navigation bar with links to key sections like "Home," "About Us," "Courses," "Student Portal," "Faculty Portal," etc.
    - A featured section displaying upcoming events or news.
    - A footer with contact information and social media links.

#### **Key Features to Implement:**

- Responsive design (mobile-friendly).
  - Clean, modern UI/UX principles.
  - Display of live updates (e.g., upcoming events, news).
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### **2. Attendance Marking System with Database Integration**

- **Description:**
  - Implement an attendance marking page where faculty can mark student attendance for each class session.
  - The system should support:
    - A form for selecting a class, date, and marking individual student attendance (Present/Absent).
    - The ability to view attendance records for a specific class and date range.
    - An administrative view to generate attendance reports.
    - A database backend (e.g., MySQL, PostgreSQL) to store and retrieve attendance data.

#### **Key Features to Implement:**

- User authentication for faculty (login).
- Dropdown lists for selecting class and student name.
- Date-picker for selecting the date.
- The ability to mark attendance as Present or Absent.
- Record retrieval and display for attendance history.

### **Tech Stack Suggestion:**

- Frontend: HTML, CSS, JavaScript (React or Angular optional)
  - Backend: Node.js with Express or Django (Python)
  - Database: MySQL or PostgreSQL
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## **3. Assignment Submission and AI Evaluation Page**

- **Description:**

- Develop an assignment submission page where students can upload their assignments and get AI-based evaluation feedback on their work.
- Students should be able to:
  - Log in to their account (preferably integrated with the university system).
  - Choose the course and assignment to submit.
  - Upload files (e.g., PDF, DOCX, images).
  - Submit their assignments.
- AI should evaluate the content (e.g., check for plagiarism, grammar, and structure) and provide instant feedback.
  - Show evaluation results: a summary of feedback on various aspects like content relevance, grammar, originality (plagiarism detection).

### **Key Features to Implement:**

- Assignment upload form (with file validation).
- AI evaluation that provides feedback (using pre-trained models like GPT-3/4 for feedback, or integrate plagiarism detection APIs).
- Displaying feedback to the student in a clear format (with grades or suggestions for improvement).

### **Tech Stack Suggestion:**

- Frontend: HTML, CSS, JavaScript (React or Angular optional)
  - Backend: Python (Flask or Django for AI integration)
  - AI Integration: GPT-3/4 or a pre-trained text evaluation model
  - Database: MySQL or PostgreSQL for storing assignments and evaluation results
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## **Bonus Features (Optional for Extra Points):**

- **Dashboard:** A dashboard for students and faculty to track assignments, attendance, and grades in one place.
  - **Admin Panel:** A basic admin panel to manage users (students, faculty), courses, and track attendance and assignment submissions.
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## **Evaluation Criteria:**

1. **Functionality:** Does the web portal meet the core requirements? Is it bug-free and responsive?
  2. **Design:** How intuitive and user-friendly is the design of the homepage, attendance page, and submission system?
  3. **AI Integration:** How well is the AI evaluation implemented? Is the feedback meaningful?
  4. **Database Management:** How effectively is the database used for storing attendance, assignment submissions, and feedback?
  5. **Innovation:** Additional features or innovative solutions will be appreciated.
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Good luck, and let your creativity shine in designing a streamlined university portal!