

Hackathon Challenge: University Web Portal

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

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!