NEOFETCH

HACKATHON

All-in-One University App – Revolutionizing Student Life

Problem overview

Modern university students face an increasingly complex environment where academic responsibilities, extracurricular commitments, transportation logistics, and campus communications are fragmented across multiple platforms. The absence of a centralized system results in inefficiencies, lost time, and a suboptimal student experience. This hackathon challenges participants to develop a cutting-edge digital solution that seamlessly integrates essential university services into a single, intuitive platform. By leveraging real-time updates, automation, and smart recommendations, the proposed solution aims to enhance productivity, streamline daily tasks, and improve overall accessibility for students.

Problem Statement

Participants are tasked with designing and developing an innovative "All-in-One University App" that consolidates essential university services into a unified digital ecosystem. The platform should prioritize usability, efficiency, and real-time interactivity, providing seamless access to features such as cafeteria menus, bus schedules, class timetables, faculty contacts, and university policies.

To elevate the student experience, teams are encouraged to incorporate AI-driven automation, cloud-based collaboration, and smart notifications. The final product should be intuitive, scalable, and designed to enhance student productivity, accessibility, and overall campus engagement. Innovative solutions that leverage advanced technologies—such as real-time tracking, AI-powered chat support, or AR navigation—are highly encouraged.

Functional Requirements

1 Cafeteria Menu & Meal Schedules

Objective: Provides students with real-time updates on meal availability, pricing, and nutrition to help them make informed dining choices.

Key Points:

- Displays **daily meal menus** with details and prices.
- Offers a **pre-ordering system** to save time.

2 University Bus Routes & Schedules

Objective: Ensures students can efficiently plan their commutes with real-time bus tracking and notifications.

Key Points:

- Sends **notifications for delays, schedule changes, and detours**.

3 Class Schedules & Faculty Contacts

Objective: Helps students keep track of their academic schedules and interact with faculty efficiently.

Key Points:

- Displays **personalized class routines** with automatic reminders.
- Tracks **assignment deadlines and exam schedules** as **To-dos**.

4 Event & Club Management

Objective: Keeps students informed about university events, clubs, and extracurricular opportunities.

Key Points:

- Displays a **university event calendar** with RSVPs and reminders.
- Lists **student clubs and organizations** with their activities.

Bonus: AI-based event recommender based on student interests.

5 Campus Navigation & Augmented Reality (AR) Map

Objective: Helps students navigate campus efficiently with real-time mapping and AR guidance.

Key Points:

- Allows students to **find classrooms, libraries, and faculty offices easily**.
- Uses **AR wayfinding**—point your camera at a building to get location details.

Technical Requirements

Platform Options

Participants may implement the solution for:

- Web: Using React, Vue, Vite, Angular, Next.js, PHP, Django, SpringBoot, Node.js etc.
- Mobile: Using Flutter, React Native, Swift, Kotlin (Jetpack Compose, KMP) etc.

Data Handling, State Management and Authentication

- If you use dummy data, manually populate your database to simulate real world scenarios.
- The application must be deployable as a mobile app (.apk) or a web app via Vercel, Firebase, Netlify, Render, or Railway.
- Authentication is **optional**, but a structured **state management solution** (e.g., Redux, Zustand, Riverpod) is recommended..

Database Options:

Any SQL or NoSQL database is permitted, including MySQL, PostgreSQL, Firebase, MongoDB, Oracle, etc.

Rubrics

Marks Distribution

Criterion	Description	Marks
User Interface (UI/UX) Design	Evaluates the clarity, responsiveness, visual appeal, and ease of use of the interface across different devices.	**20%**
Feature Implementation & Functionality	The number of features implemented, their effectiveness, and how well they integrate with the overall system.	**40%**
Innovation & Creativity	Uniqueness of features, creative problem-solving, or advanced technology (e.g., AI, ML, automation, accessibility enhancements).	**10%**
Team Collaboration & Project Management	How well tasks were distributed, documented, and executed. Consider the use of tools like GitHub, Trello, or other management platforms.	**10%**
System Presentation & Performance	Functional demonstration, system stability, responsiveness, and ability to answer judges' questions.	**20%**

💡**Bonus:** Up to **10%** additional marks for exceptional **AI integration, accessibility improvements, security enhancements, or unique feature implementations.**