Web Development Project Proposal

Course: CSE242

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Subtitle: Three Practical Web App Ideas

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About the Proposal

💡 Purpose
- Present three unique, practical, and doable full-stack web app ideas.
- Demonstrate understanding of frontend, backend and database development.
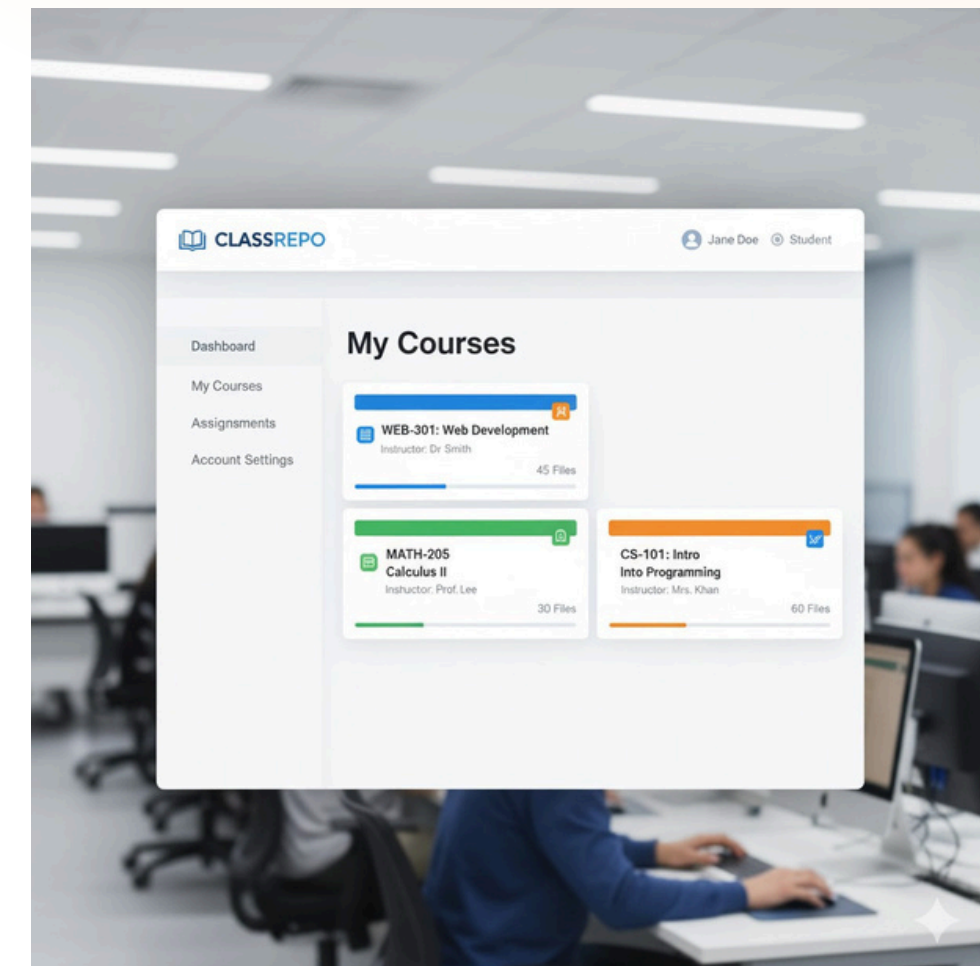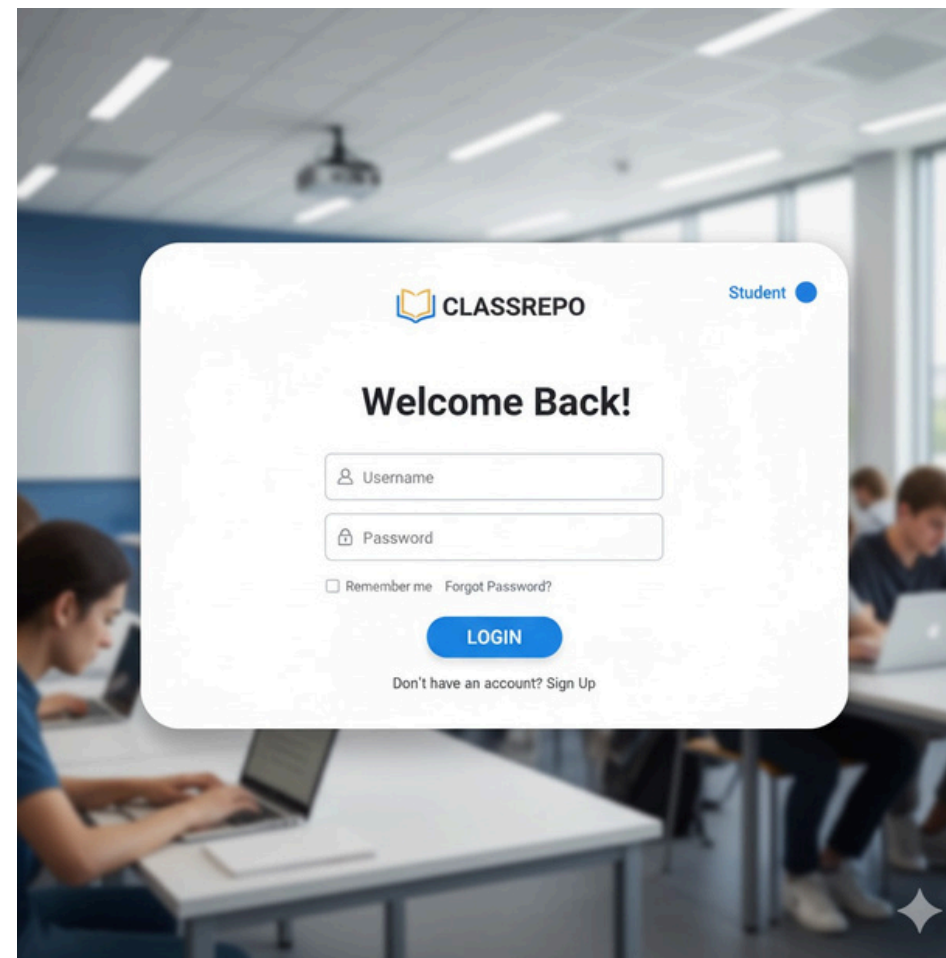
🧱 Requirements
- Each idea includes:
  - Website features and functions
  - Chosen frontend, backend, and database technologies
  - Mention of UI/UX design tools (Figma) if used
- Projects are realistic to build within the semester.
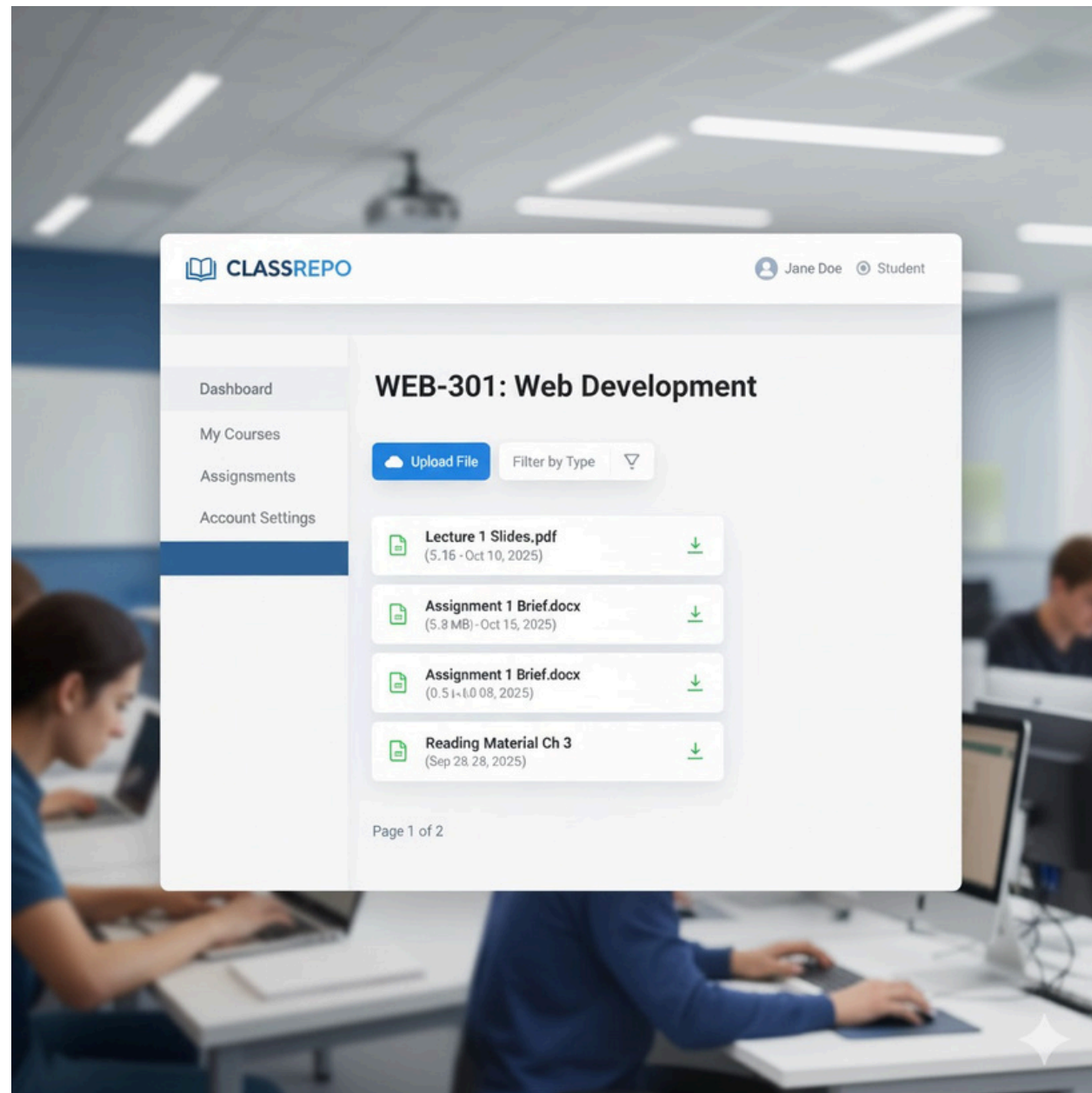
Idea 1: EDU Classroom Repo

Description: Current and Previous students enrolled shares the course materials, lecture notes of different faculties under their classroom.

Features:
- **File Upload & Download**
- **Role-Based Access (Admin, Teacher, Student)**
- **Visual Suggestion: File upload illustration, classroom icons.**
- **Access to their own departments**

Tech Stack & Why It Fits

Frontend: HTML, CSS, Javascript, React.js

Backend: Node.js (Express)

Database: MongoDB
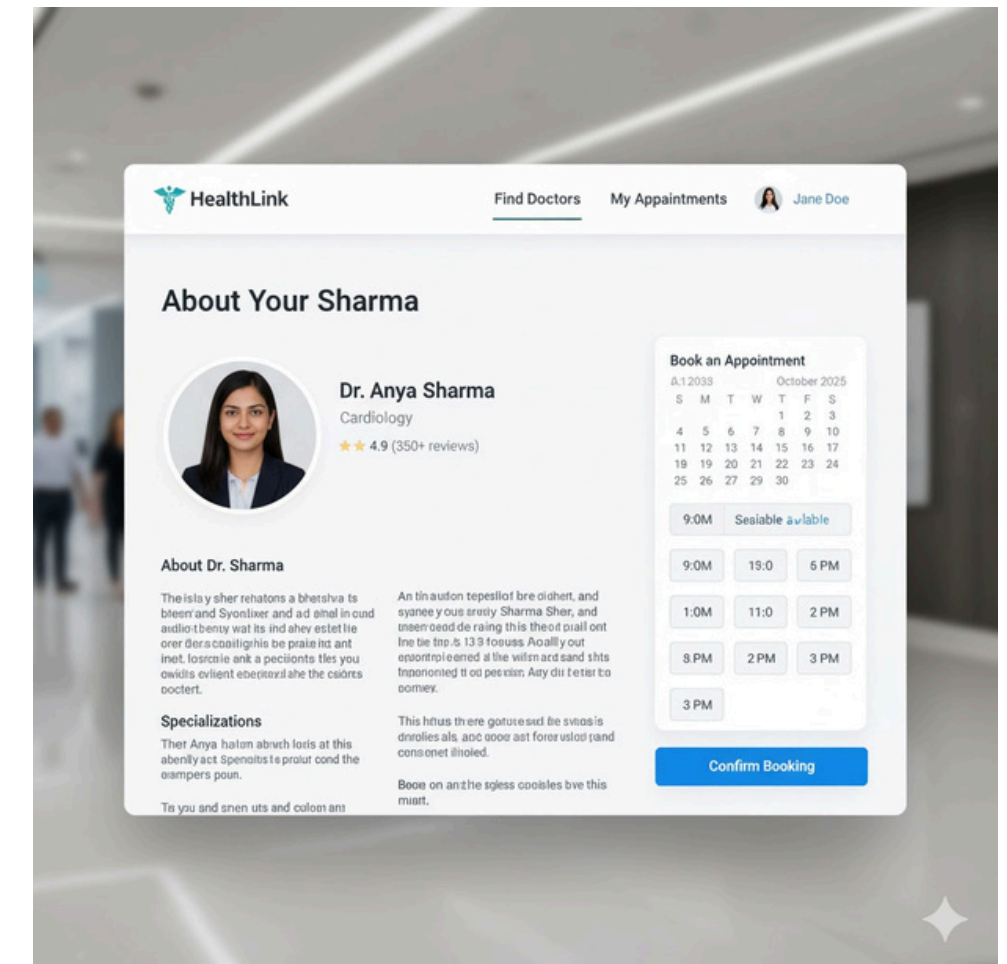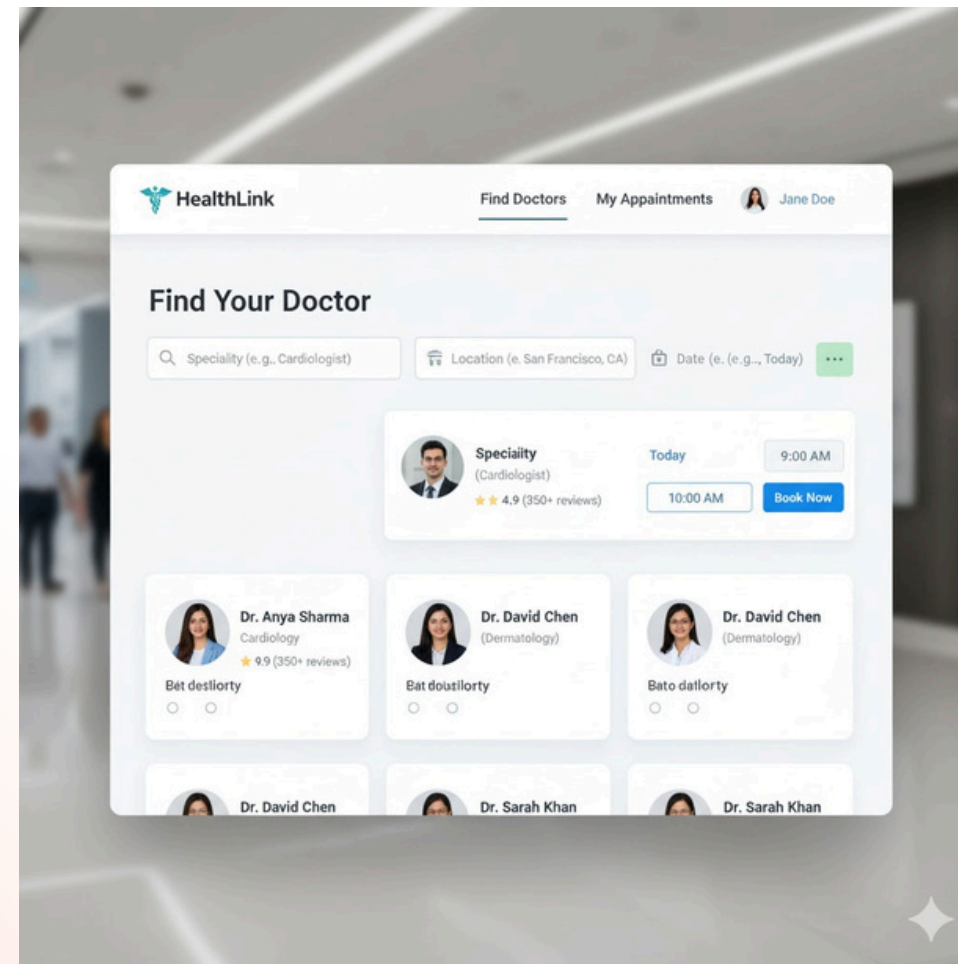
UI/UX: Figma (if needed to optimize)

Why It Fits:

CRUD, file handling, access control, perfect academic relevance.

Idea 2: HealthLink

Description: A web platform for booking and managing doctor appointments online.

Features:
- Doctor & Patient Login
- Informations of Different Doctors
- Appointment Booking & Rescheduling
- Admin Control over Doctor Schedules
- Email or SMS Notifications

Tech Stack & Why It Fits
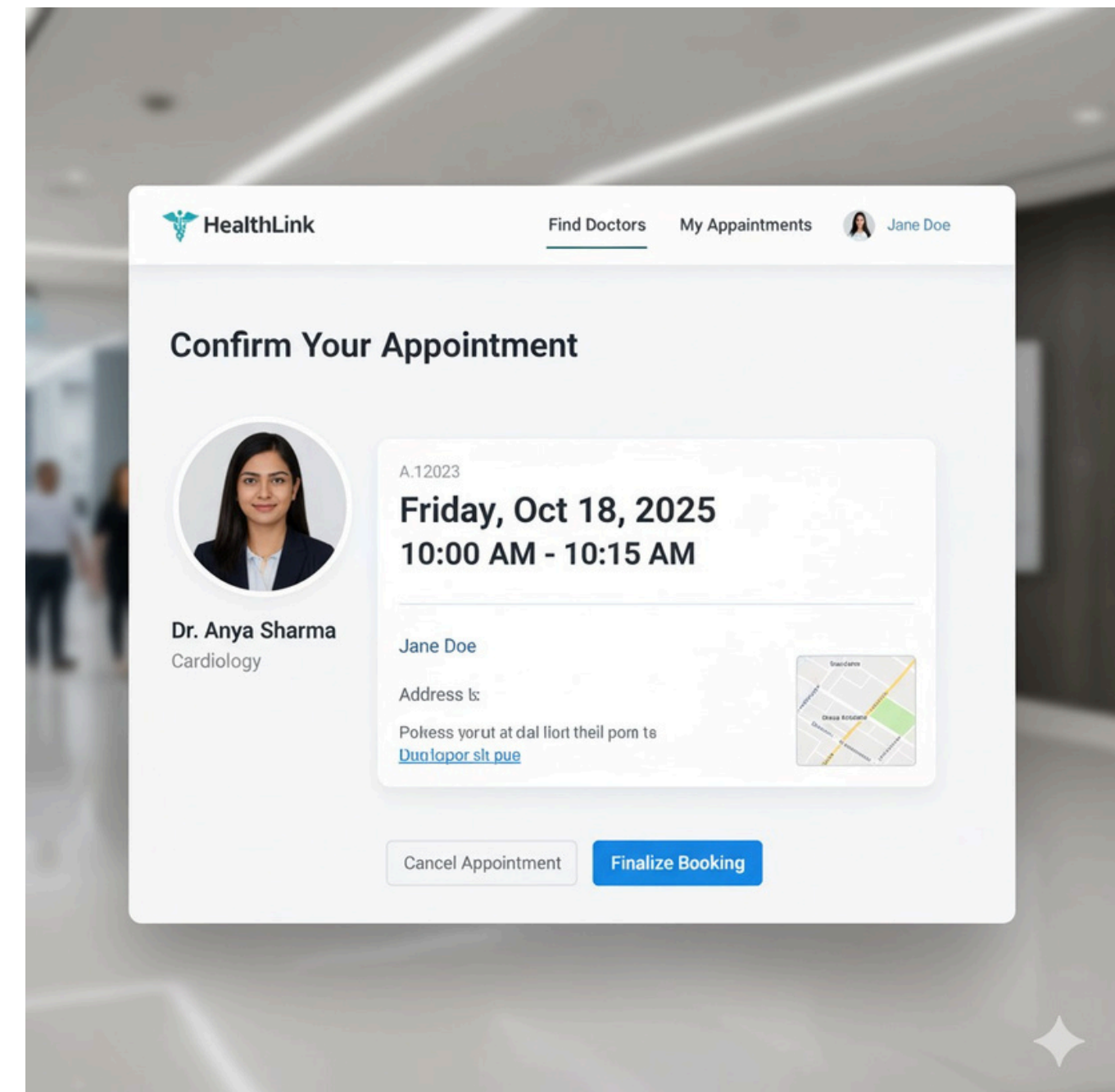
Frontend: HTML, CSS, Javascript, React.js

Backend: Node.js (Express) / Django

Database: MongoDB / SQLite

UI/UX: Figma (if needed)

Why It Fits:

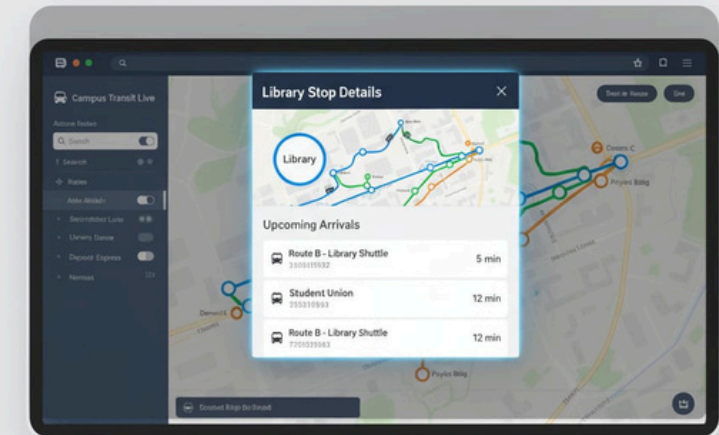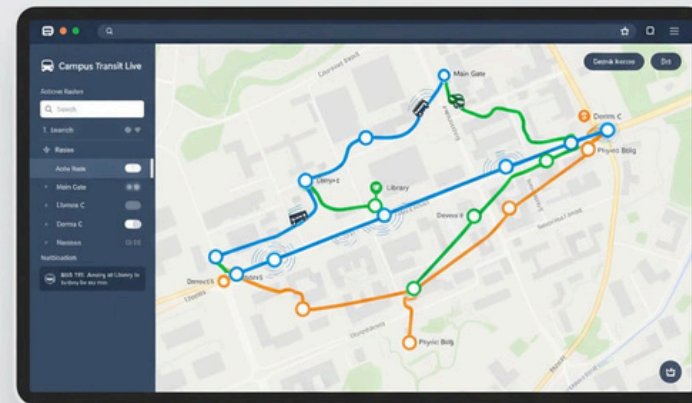CRUD operations, real-world medical use, strong database integration.
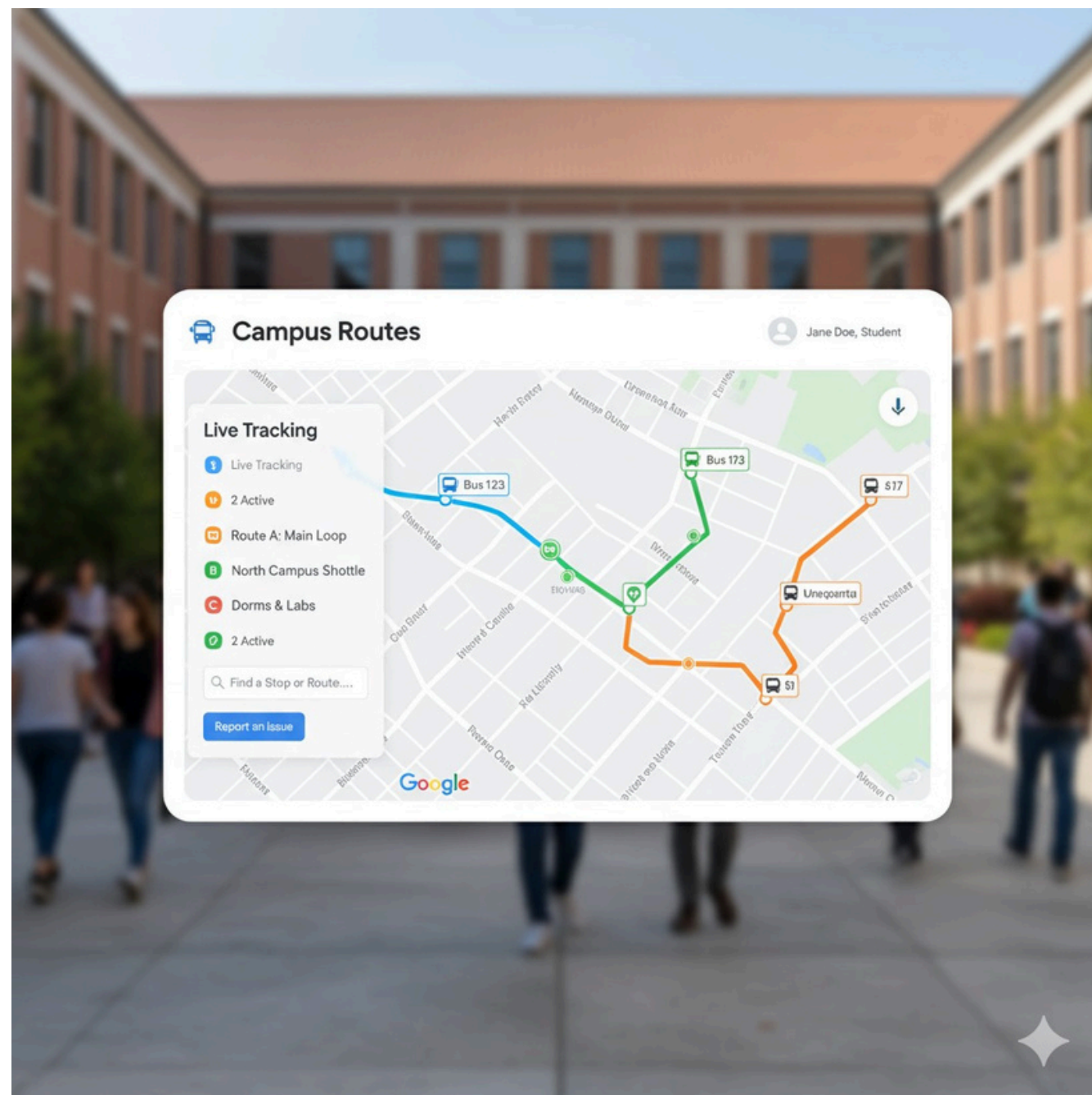
Idea 3: EDU Bus Tracker

Description: Help student track the live location of the university buse and catch the closest bus enroute.

Features:
- **Real-Time Bus Location**
- **Student Login (University Email)**
- **Admin Control for Routes & Timings**
- **Push Notifications for Bus Arrival**

Tech Stack & Why It Fits

Frontend: React.js

Backend: Python Django

Database: MongoDB

Map Integration: Google Maps API

UI/UX: Figma

Why It Fits:

Live data, API integration, scalable and highly useful for students

Summary Comparison Table

Project	Main Purpose	Key Features	Why It Fits
HealthLink	Appointment System	Booking + Notification	CRUD + Real Use
EDU Classroom Repo	Classroom Resource	Upload + Track every Faculty's materials	File Handling
UniBus Tracker	Bus Tracking	GPS + Real-Time Update	API + Real-time Logic

Conclusion

Thank you for your time.

We would love an recommendations from the faculty and the ones viewing our presentation.

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