Deliverable 1: Design Document

Overview
The project our group will be working on is a Student Portal that serves as a platform for students to manage their academic activities. This portal will allow users to add, drop, and swap classes, providing flexibility and convenience. It will also include features such as a personalized dashboard displaying personal information which is also editable an enrollment section where students can manage classes, another section for class schedules, and other details. Before you can view the dashboard there will be a Sign-Up section for new users to create accounts and a Sign-In section if you already have created an account. Once signed in, users will have access to all portal functionalities.

Backend
The backend will be implemented using Node.js with Express as the framework for managing the server. The backend will interact with a MongoDB database, which will be hosted for 7 days for the duration of the project.

Database Management:
- We will probably use MongoDB with right collections for users and classes.
- Then ensure the backend works with the database using Mongoose to retrieve, add, update, and delete records.
- We are considering using Json for the classes (courses) management.

Endpoints:
- POST -> signup: this will add a new user to the database.
- POST -> login: this will check if the username and password match a user in the database.
- GET -> schedule: this will retrieve the class schedule for a specific user.
- POST -> classes: this will allow users to add, drop, or swap classes.

Database Structure:
- userId: user identification.
- username: User's username.
- password: user's password.
- enrollment: List of enrolled class IDs.
- classId: class identification.
- className: Name of the class.
- schedule: Time and date of class schedule.

Timeline
Week 1: Planning and Initial Setup

- Ayman: Design the user interface mockups and finalize the portal layout.
- Ibrahim: Set up the frontend environment with HTML and CSS.
- Aaraiz: Set up the backend environment with Node.js.
- Suvrat: Setu p MongoDB and work on database structure.

Week 2: Development
- Ayman: Build the Sign-Up and Sign-In pages and integrate them with the backend.
- Ibrahim: Create the dashboard layout and work on class schedule display.
- Aaraiz: Implement the authentication system and API endpoints.
- Suvrat: Develop the database models and test integration with the backend.

Week 3: Testing and Finalization
- Ayman: Check the functionality and make any needed changes to the frontend design.
- Ibrahim: Test if the frontend and backend are working properly and fix bugs.
- Aaraiz: Perform testing on API endpoints and make any final edits if needed.
- Suvrat: Review database consistency and conduct final data checks.
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Approximately 20 hrs/wk

Student Portal

Log In

Username:

Password:

Log In

Create New Account

Create Your Account

Sign Up

Email:

Username:

Password:

Re-enter Password:

Sign Up

Back to Login

Classes Opted

Name	Day	Time

Classes Available

Name	Day	Time	

Class Opted

Name	Day	Time	

Personal Information

Name:
Date of Birth:
Address:
Email:
Phone:

Edit

Class Management

Add Class

Drop Class

Your Schedule

View Schedule

Details

Name:

Date of Birth:

mm/dd/yyyy

Address:

Phone:

Save