CSE211

WEB PROGRAMMING FRONT END

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Team member

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Trello Board for Project Progress Tracking

To monitor and manage the progress of our project, we have employed Trello as our project management platform. The Trello board for this project is accessible <u>here</u>. This board provides real-time updates on tasks, facilitates collaboration, and enhances overall project visibility.

Project name and description

Student Advisory System (SAS)

Many students encounter difficulties when registering for courses each semester and effectively communicating with their academic advisors. These challenges often lead to delays in course selection, scheduling conflicts, and a lack of clarity regarding academic requirements. Recognizing the need for a solution, we have embarked on the development of a comprehensive **Student Advisory System (SAS)**.

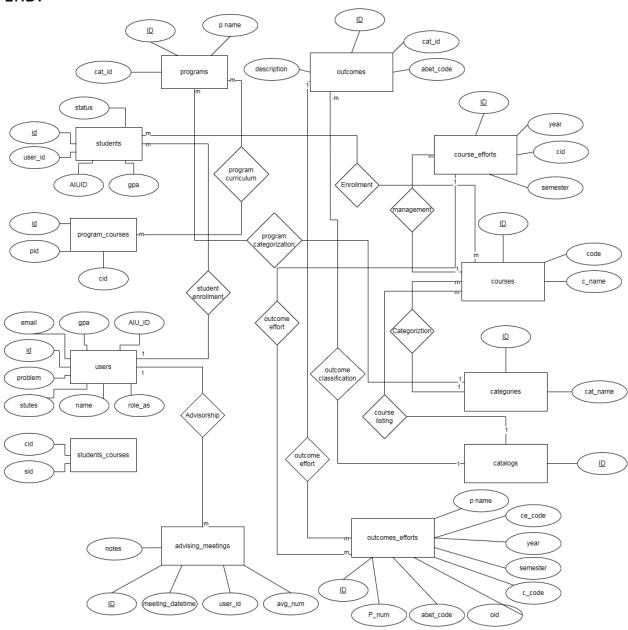
By implementing the **Student Advisory System (SAS)**, we seek to empower students to navigate their academic journey with confidence and efficiency. Through improved registration processes and enhanced communication channels, we aim to enhance the overall academic experience and contribute to student success.

Recall

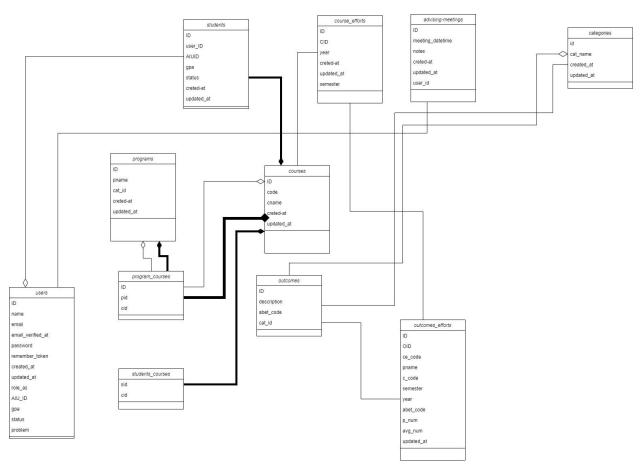
As we document in proposal we implement front end we use SB-admin bootstrap template and we edit HTML & CSS in accordance with project requirements, and we develop back end with Laravel framework.

Digrams:

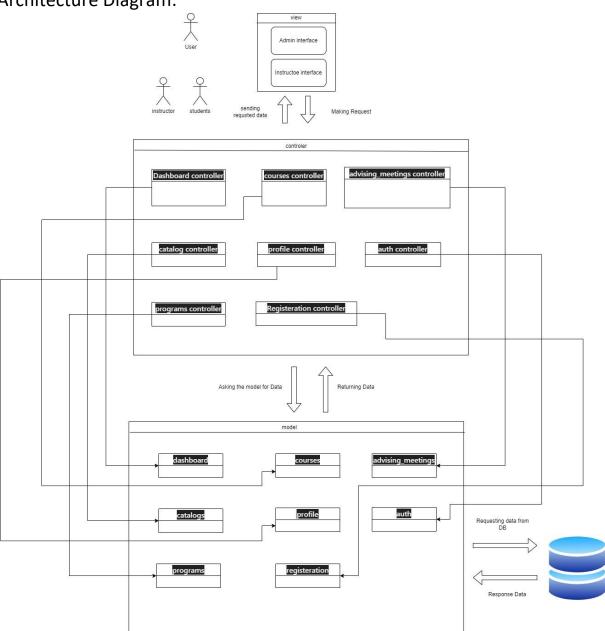
ERD:



class diagram:

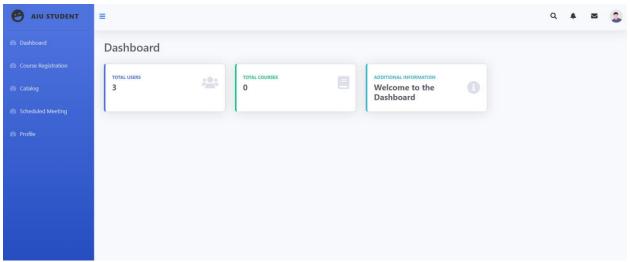


Architecture Diagram:

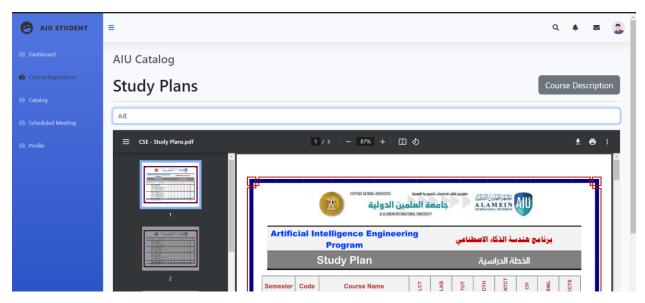


Front screens:

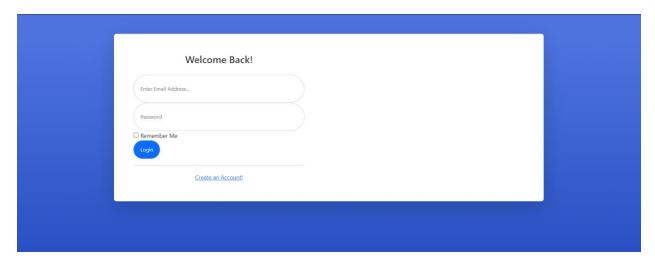
1-dashbaord:it shows here the number of users.



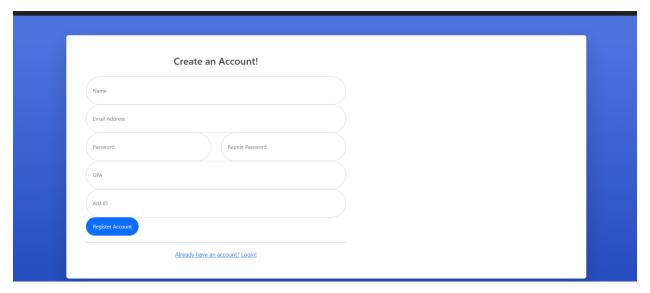
2-catalog:it shows the study plan of each track.



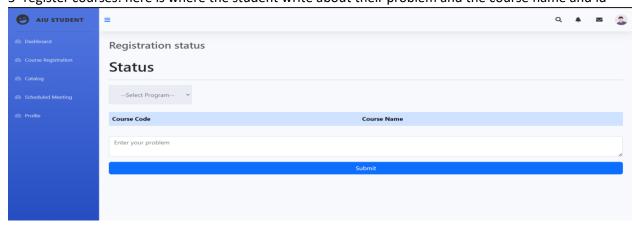
3-login: here the student login using the email that they have created.



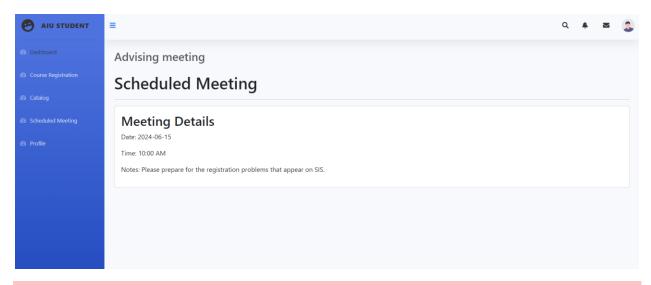
4-register: here where the student register if they don't already have an account .



5- register courses: here is where the student write about their problem and the course'name and id

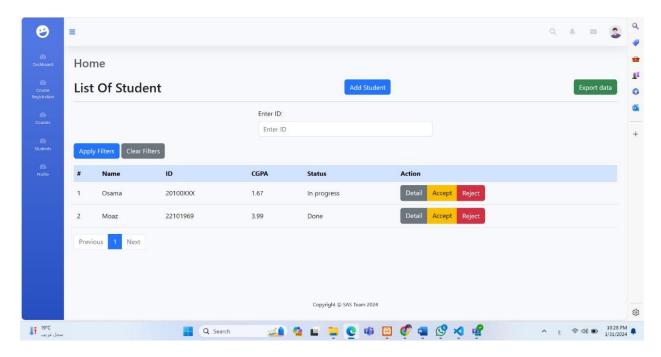


6-advising meeting: it shows the meeting that is scheduled.



Acadimic Advisor mange his students

The academic advisor manages his students. The student's problem is presented to him, he studies it, and then he responds to the student by accepting or rejecting the petition.



Testing:

1-Testing Techniques:

We employed a combination of testing techniques to ensure comprehensive coverage of the software's functionality. These techniques included:

- Exploratory Testing: Testers explored the software's features and functionalities dynamically, identifying potential issues and areas for improvement.
- Boundary Testing: We tested the software's boundaries by examining input values at the limits of their valid and invalid ranges to ensure that it behaves as expected.

2-Types of Tests:

Throughout the development process, we conducted various types of tests to validate the software's functionality, including:

- Functional Testing: Verifying that each function of the software behaves according to specifications and meets user requirements.
- Regression Testing: Ensuring that new changes to the software do not adversely affect existing functionalities.

Adopted Technologies for every layer and tier:

1-Module Layer:

- Frontend Modules: Different modules representing distinct features or sections of the application.
- Backend Modules: Backend modules responsible for handling business logic and data processing for each frontend module.

2-Controller Layer:

- Frontend Controllers: Controllers responsible for handling user input and interaction in the front-end modules, these controllers interact with Laravel routes and views.
- Backend Controllers: Controllers responsible for routing requests to appropriate handlers and coordinating the flow of data between the front-end and back-end modules. In Laravel, these are typically implemented as controllers.

3-View Layer:

- Frontend Views: Views representing the user interface elements and presentation logic in the frontend modules. In Laravel, these are typically Blade templates.
- Backend Views: In the context of server-side rendering (SSR) or generating dynamic content, backend views might refer to templates rendered by the backend controllers.

4-Frontend Technologies:

- Frontend Framework: Laravel Blade (for server-side rendering).
- Controller Implementation: Laravel Controllers
- View Templating: Blade templates (for server-side rendering)

5-Backend Technologies:

Backend Framework: Laravel (PHP framework)

- Controller Implementation: Laravel Controllers
- View Generation: Blade templates

6-Data Layer Technologies:

- Database Management System: MySQL (managed through XAMPP)
- Database Administration Tool: PHPMyAdmin (for managing MySQL databases)
- Database Access: Eloquent ORM (provided by Laravel) for interacting with MySQL databases

7-Development and DevOps Tools:

- Integrated Development Environment (IDE): PhpStorm for PHP development.
- Local Development Environment: XAMPP for local server setup, providing Apache, MySQL, and PHP environments.
- Version Control: Git (with Git GUI or command line) for version control.
- Testing: PHPUnit for PHP unit testing.
- Deployment: Deployment strategies might involve tools like Laravel Forge, Deployer, or manual deployment to production servers.

References:

- Bootstrap[<u>link</u>]
- Laravel[link]
- Php[link]