FSAD 2024
Lab Final Examination

RULES & REGULATIONS:

You are only permitted to access your previous lab works and documentation sites listed below:
- https://angular.dev/
- https://mongoosejs.com/docs/guide.html
- https://expressjs.com/
- https://developer.mozilla.org/en-US/docs/Glossary/TypeScript

You are working as a Full Stack Developer for the CSIM department, and the new requirements have come in that you have to complete immediately. The previous developer has riddled the codebase with errors and bugs which has made the application unusable.

Please clone this repo to get started: https://gitlab.com/ait-fsad-2024/labreference/final-exam

Here is the list of requirements that the department secretary has asked you to complete.

Requirements in the Version Control (2 points)

The department wants to streamline the development process for future review and maintenance. So, please consider the following process:
- Create a new branch for the requirements.
- Commit with an appropriate message each time you complete a requirement
- Create a merge request when all code updates are fulfilled
- Merge the branch into the main branch after a proper review

Requirements in the Codebase

1. The home page has two links: Projects and Chat which leads to corresponding pages. However, it is accessible for unauthenticated users too. Update the application such that only authenticated users can access Projects and Chat pages. **(1 point)**

2. Create a new page AboutMe under route "/about-us" and link the page in the home page. It is accessible to all users. The page should have some information about the department. Few sentences or facts are enough. **(1 points)**

3. Add a logout button which fulfills following criterias: **(2 points)**
- It should be visible only when user is logged in
- It should clear the user info and token from browser
- It should redirect the user to login page
- Login/Signup should not be visible when the user is logged in.

4. There are few issues with the whole Project module. Update the module such that:
   - Only authenticated user can uses the project endpoints in the backend **(1 point)**
   - Authenticated users can update the project information. **(2 points)**
   - Write a unit test for the new Project Show/Update page. (**1 point**)

5. Currently, the chat box shows the user id before each message which hardly identifies the user who sent the message. Update the chat box to show the user's first name and last name before each message. **(2 points)**

Requirements in CI/CD (2 points)
The current setup does not run any pipelines when new changes are made to the application. Fix the whole CI/CD setup such that:
   - CI/CD pipelines start when any changes are made to the main branch.
   - CI/CD pipelines should start jobs for api and app simultaneously.
   - Any successful job should push built docker images for app and api to your docker hub repository.

Requirements in Deployment (1 point)
Deploy the docker images in CSIM server with the docker-compose file in the repo. Make the changes necessary to pull your own image from dockerhub.