Advanced Web Applications Project Documentation

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Suggested points for features:

Feature	Max points
Basic features and documentation	25
Frontside (React)	5
Total points:	30

Technologies utilized

One of the first things I decided to utilize in my own project was to use React Vite for the frontend rather than Create React App as it is more modern and supported, and also a bit more lightweight. For the backend, I utilized mainly Node and Express. In the backend I used JWT for authorization and authentication. I found jsonwebtokens to be a lot easier to use than passport and it seemed more reasonable for a hobby project. I used bcrypt for salting and hashing passwords, and I used mongoose alongside MongoDB for the databases. In the frontend. I used typescript for the language and I utilized react-router-dom for routing. Most of these were already introduced in the course aside from React Vite, so I mostly picked them for familiarity and smoothness of development.

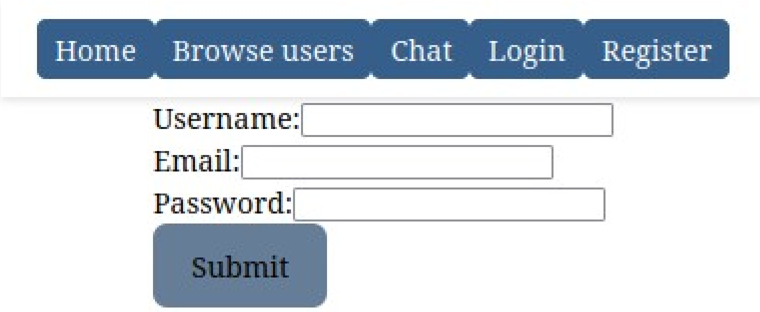
Installation guide

The project is not ready for production, so it is only reasonable to run the project locally. The backend is in the root folder, while the frontend is contained in the “app” folder. First of all, in the root of the project folder, run “npm install” to install all dependencies. Then, cd into the app folder and run “npm install” again. After this, if not already there, you should create a “.env” file in the root of the project, and there you should define a SECRET:”typewhateverhere” and also the mongodb address as DB=”mongodbaddressgoeshere”. I recommend keeping the port as 3000, because all the routes in the frontend are still directed to that (this is because I was unable to make it work properly without direct url, I should have used the proxy tool of React) so if you change it something else, you need to change all of them in the .tsx files.

After this, cd back into the root of the project, and run “npm start” to run the express server. Then to start the frontend, cd into the app folder and run “npm run dev”.

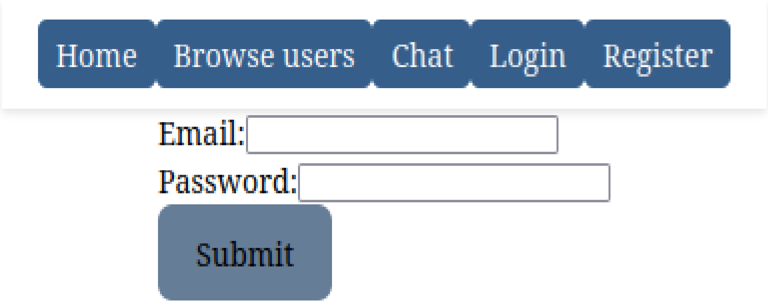
User manual

Registering an account



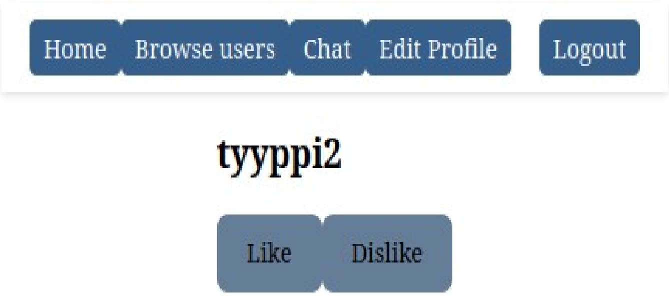
Register your account by locating the “register” button in the right of the navigation bar. Make sure that email is in right format and password is longer than 8. Press submit, and it should tell you if your username and email are unique, in which case your account was registered.

Logging in



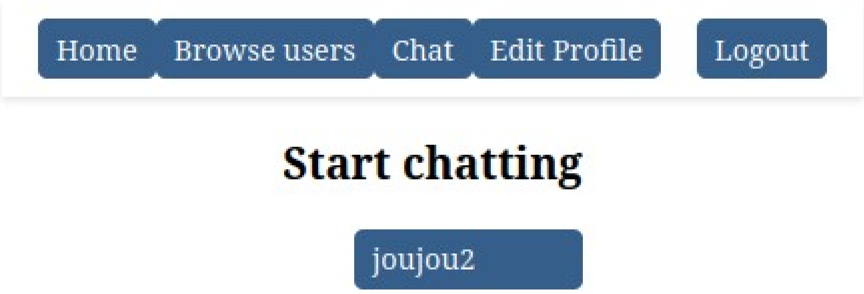
Log in by going to the login button next to the register button. Here, just type in the email and password you used and then press submit. After this due to a problem in my code, you need to refresh the page so that the token value is properly assigned and you can access the actual features of app

Browsing for other users

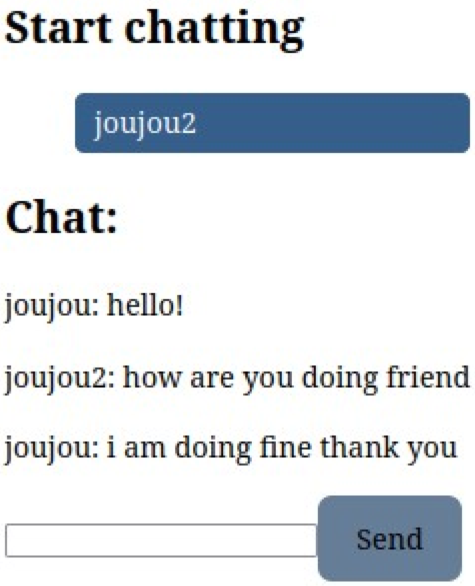


If other users exist in the database, you can browse for them in the “Browse users” button. I recommend creating a few accounts in the register section to properly test this. If you like a person and the like is mutual, you can start chatting with them in the “Chat” link. There is a small problem that if you run out of people in the database to like/dislike, the last person will get stuck in the screen and you can send multiple requests to like/dislike them, but I made sure in the backend that only 1 like or dislike gets registered in the backend.

Chatting with users



If there are any viable users, so where the like went both ways, you can start chatting with them by clicking their name in the “chat” tab of the navigation bar.



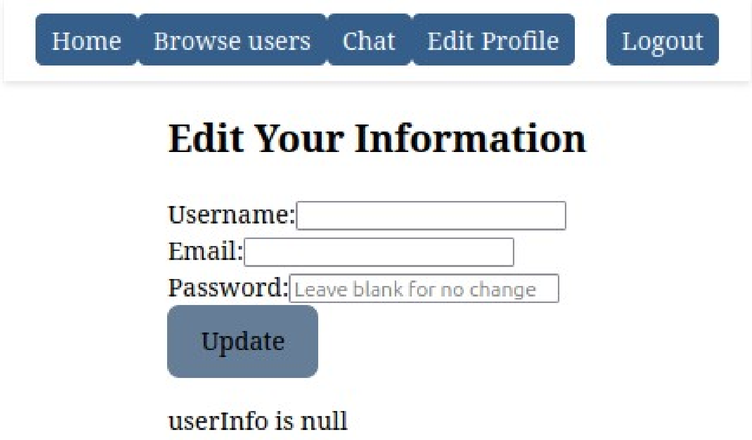
joujou: hello!

joujou2: how are you doing friend

joujou: i am doing fine thank you

You are then presented with this window, and you can type a message and send it by pressing the users name, and typing into the input field and pressing “Send”. I didn’t implement real time updates, so to update the chat and see if the other person sent a new message, I recommend clicking the name of the person again and it will send a request to get all of the chats from the database.

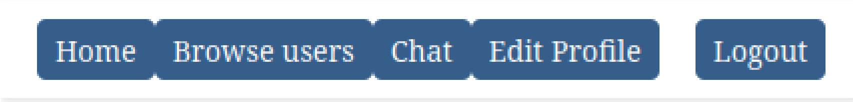
Editing profile



userInfo is null

If you are logged in, you can edit your profile by going to “edit profile”. This allows you to change your username, email and password. I made it so you have to change both username and email because of some problems, but if you leave the password field empty it will not be changed. Press “Update” and the changes will be applied in the database, and it will again inform if you try to change to an already used name or email.

Logging out



To log out, simply press the logout button. This will clear your localstorage and free

Thoughts and problems

I struggled with some problems that were left in the end of the project, such as trying to figure out real time updates for the chat and likes and dislikes. Probably the worst one is that after login the token is not properly updated on the frontend, which means you have to refresh your browser to access authorized content. I’m not 100% sure yet which caused it, but it probably has to do with React render cycles and my misunderstanding of them. Also, the styling is fairly ugly but I hope it meets the minimum requirements since I also added some mobile styling to make it bearable.

Links

Github project link: https://github.com/SanteriK123/advanced-web-applications-project