

Overall, I have found this assignment a very enriching experience. While I have taken part in some CS Projects in the past, none have tasked me as an individual to work on a fully functional app while learning most of the language by myself. This assignment has allowed me to gain some insight into how I would fare under a time crunch.

During the assignment, I had learnt about TypeScript and how it differs from JavaScript. JavaScript's type inference allows for convenient programming and a mix of different return values for the same functions, and I found the flexibility extremely easy to work with. On the other hand, I did not see an obvious advantage to TypeScript at the start – with its stringent typing, TypeScript was a pain to get started. However, as time went on and the project got larger and larger, I found TypeScript far easier to follow than my average JavaScript program, as I did not have to guess what the function was going to return me. In a way, TypeScript has forced me to collate my functions rather than overloading one and working with that.

Redux was also quite nice to work with. At the start I had opted to try to work with Redux as part of my optional learning. Towards the start, I had found Redux unintuitive to work with, given how out-of-the-box React was in terms of state management. However, in the same vein as TypeScript, Redux showed that it was far easier to work with in the long run – the same communication between 2 separate components became almost trivial due to my Redux implementation.

One thing I had not expected was how much of TS-React had been UI design – it felt like a lot of the time I spent on the project had been on the UX elements even though the logic and planning had likely taken far longer than that.

I had quite enjoyed the process in crafting something that I feel like I can be proud of, and I thank you, members of CVWO, for giving me this opportunity to further myself and I hope that I can get into CVWO this year.

User Manual on Next Page

Technical Guide: As the program was not mounted on a web service,

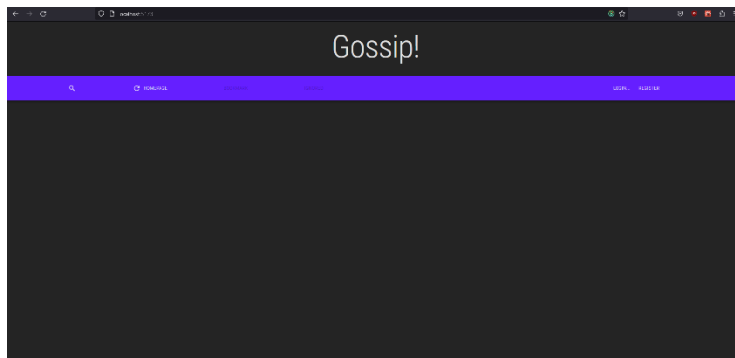
`npm run dev` was the main command used to run the frontend

`go run main.go` was the command to run the backend

by default, the frontend runs on port 5173,

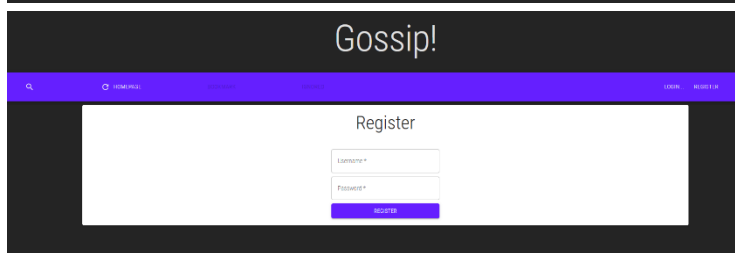
the backend runs on port 8000.

User Guide:



This is how the root looks like normally. The purple nav bar allows you (without logging in) to access the search, homepage, login page and register page.

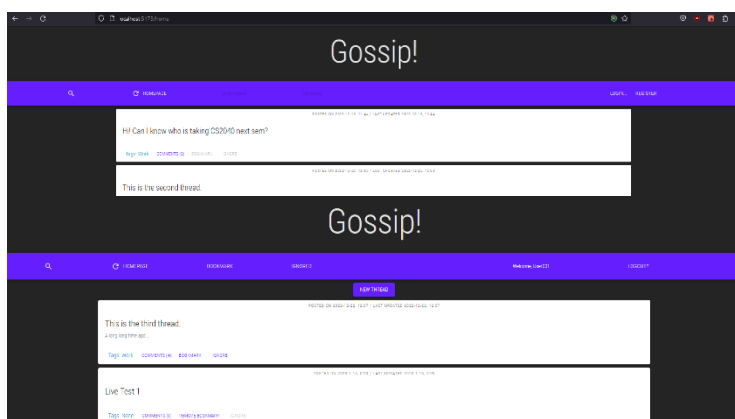
To use most of the features on the site, you need to log-in.



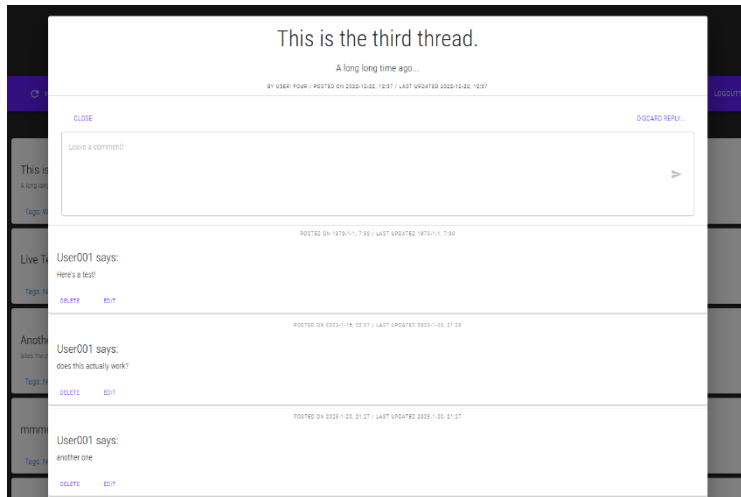
The Register and Login Pages are only accessible without logging in.



You may stay logged in for 24 hours after you do so, but you will be automatically logged out after 24 hours.



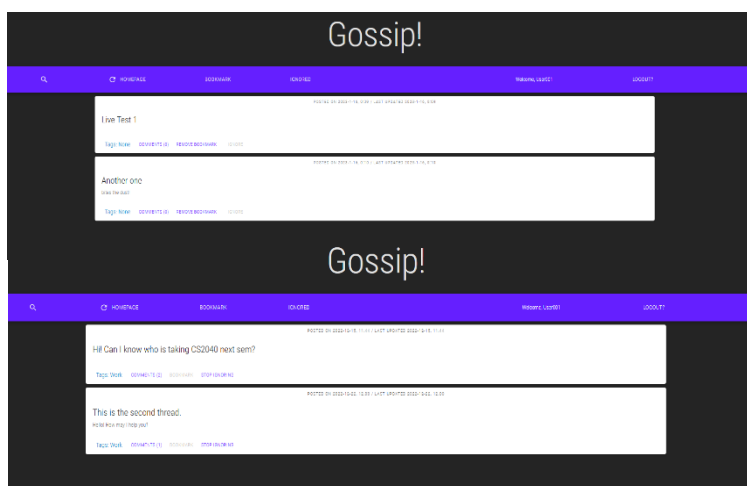
The Homepage, before and after you log-in. Notice the New Thread buttons and the Bookmark/Ignore buttons enabling after the login.



The Thread Popup, after you log in. Note that the reply box is not available if you do not log in.

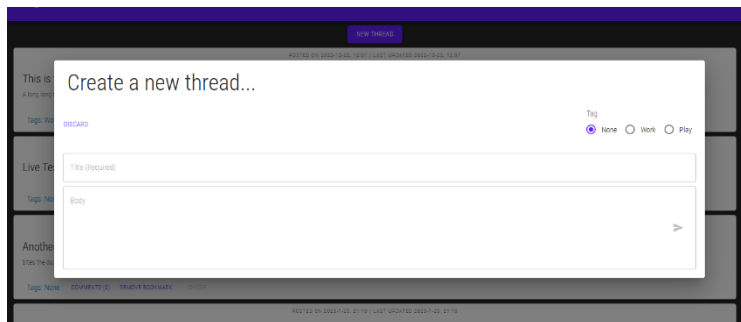
Notice that the comments can be edited/deleted if you own the comment.

You are not allowed to delete threads or edit them – I wanted threads to be more permanent than comments, so this was designed in this way.

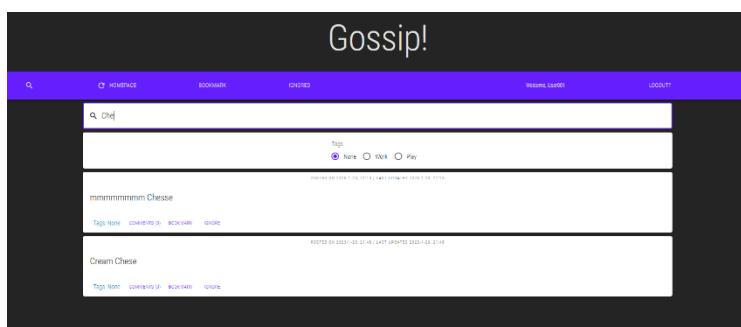


The bookmarks and ignores tabs serve as user-defined tagging. It allows the user to classify the threads they are interested in into its own tabs, and hide away the threads they aren't into its own separate folder.

Should a mistake be made, the ignores tab allows you to fetch the thread from the classification.



When logged in, you are allowed to make a new thread. This allows you to define a (required) title, optionally a body, and assign a work/play tag to it as a system classification.



Regardless of your authentication status, you may access the search function, where you can classify threads according to their title/bodies and their system tag.