

Front-End Repo link: <https://github.com/ruixuantan/ToDo-Frontend>

Heroku link: <https://todo-list-frontend-typescript.herokuapp.com/>

Short User Manual

1. User starts off with logging in/registering.
2. In the app, the User can access the 'Home' page, 'Manage Tags' page or Log-Out via the NavBar.
3. In the 'Home' page, the User can:
 - View all tasks, along with their statuses: description, dateline, completion status and tags.
 - Click on the create task button and create a new task, along with its accompanying details (Create).
 - Use the FilterBar to filter through tasks with a given tag.
 - Click on a task link and be redirected to a page that displays the task's details (Read).
 - Click on the Edit button to update a specific task (Update).
 - Click on the Delete button to delete a specific task, but not the tag (Destroy).
4. In the 'Manage Tags' page, the User can:
 - Create a tag or multiple tags.
 - Use the FilterBar to filter through tags.
 - Click on the Delete All Filtered Tags button to delete all filtered tags.
 - Click on the Delete button to delete a specific tag.
5. Some bugs that are not yet fixed:
 - Users cannot update the middle tags of a task by clicking on it to remove.
 - App does not work on Safari and Internet Explorer (works on Google Chrome and Firefox).

Accomplishments

Without prior web development experience, I found this assignment to be challenging, but rewarding. It was certainly frustrating at times and I was on the verge of giving up at one point. Yet, it feels satisfying whenever pieces of code work and to see the end

product of a functional app. I have learnt so much through this assignment and am eager to learn more in CVWO.

My development process can be broken down into four main stages: learning; getting basic CRUD operations; implementing bootstrap and user authentication; TypeScript. The hardest stage was learning the concepts behind web development. I had no clue how the information on the Ruby on Rails website relates to the assignment initially. It also did not help that the website only teaches how to implement the frontend via Rails forms. Hence, I transitioned into stage two (getting CRUD operations) feeling that the content was getting me nowhere. It was at this point where I started actually learning about web development, after scouring the Internet for tutorials and examples. I managed to get a rudimentary app working before the mid-submission.

In the third stage, a challenge I faced was getting bootstrap to work after deploying to Heroku. This was where I learnt more about webpacker. Implementing user authentication was also not easy as I had to reconfigure the React components and routing within Rails. As such, I appreciated the need to plan before executing a project.

I started the final stage only a week prior to the newly announced extended dateline. The attempt of implementing TypeScript is rushed and not fully complete. At this stage, I also separated my backend and frontend code into two servers as I could not get TypeScript to compile on my previous app (a link to my previous attempt: <https://github.com/ruixuantan/ToDo>). I also realised how bad my code was in terms of typing (i.e a string could be changed into an array of objects). The design of my current TypeScript React components can also be improved.

To sum up, through this assignment, I gained a better grasp of web development and the MVC pattern. I am confident that I can learn other web development frameworks (such as Django) with ease. Additionally, I believe I will be able to design better class components. There are some unresolved issues and questions regarding my app that I will continue exploring further.