**Some Takeaways From CVWO Assignment**

I have spent a really tough yet meaningful time throughout this CVWO assignment. As a freshman in computer science, this is the first time for me to learn and try to develop a website from scratch, and I faced a lot of difficulties in building this seemingly simple todo-app. I spent half a month learning rails and react by reading documentations and watching YouTube tutorials, and after that, started to build on the app bit by bit. Although I did not manage to finish all my objectives for the app, I still felt contented with all the knowledge and skills gained during the process.

The biggest takeaway for me in doing future web development projects is that I should always plan in as much details as possible before I write down codes. In this project, although I did plan the rough structure of the website and components of frontend, as I wanted to have nested resources of todo\_lists and todo\_items, I still struggled in linking my user model to existing resources after basic functions are completed and I am still in the process of figuring that out. One reason for this is my unfamiliarity with the coding languages especially when two structures (rails and react) are combined, but on the other hand, I feel that coding experience might be much better if the order of writing codes are organized logically, such as implementing parent data before child data.

Another surprising observation I made is that, in web development, the hardest problem sometime does not come from the main code, but other seemingly trivial configurations, such as the dependencies. My code constantly ran into a lot of bugs, but I found out that I have spent a large fraction of time fixing bugs related to material-ui and sqlite3, and I even failed to host my app because I could not change my database from sqlite3 to postgresql properly. A website can be built through many ways using different tools, and it is important to choose carefully so that they do not become incompatible at some point and cause trouble in the future.

Currently, although basic tasks are achieved, I am still not fully satisfied with what my app can offer users and would like to continue working on it after submission, and I found this assignment quite interesting actually. No matter the outcome of it, I would continue my journey in learning more about web development.

**User Manual:**

The todo website allows users to create todo lists as well as todo items, so that items can be organized in some manner according to users’ wishes.

Users can:

- create todo lists

- create todo items inside a todo list

- delete todo lists

- delete todo items

- check completion of todo items

- move a todo item from one list into another list (like tagging)