

CVWO Final Submission Writeup

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Write up

First of all, I would like to thank the CVWO team for providing me with the direction and motivation to work on my first medium sized project of my own. I have always discussed with my friends about doing a large project together to improve our software development skills, but we just ended up with multiple small projects put on hold due to our lack of purpose or even something to nudge us in the right direction.

Thus I can say that I am very proud of this project, being the largest project that I have built so far. Working on the project overall was a very fun experience, and I was surprised at how much this project took over my life. I was shocked at how intrinsically motivated I was, thinking about how to solve certain bugs, new features to implement and what not when I was not working on the project and even when I was sleeping!

What I learnt

From this project, I realised that web development was much more complex than I was giving it credit for. There is really a lot to learn in web development and I have learnt many frameworks that will surely prove helpful for me in the future. Other than those that I mentioned in the Mid Assignment writeup, I have learnt how to use Typescript, a little bit of Devise, Heroku, how to set up an SSL compliant website with a custom domain and also React Material UI. Overall, I really enjoyed this assignment and it has enriched my Winter break in many ways. I have no regrets taking up this assignment and I would like to thank my TA, Alex Seow, for strongly recommending this opportunity to me as well.

Regrets

One of my biggest regrets was not optimizing and considering mobile use when designing the application. Only when I have built a sizable portion of the App did I realise that optimizing for mobile is a really big factor that I had completely missed. When I sent the link to my App to my friends, they were unable to use it as they were opening the website on mobile most of the time. Another regret is not challenging myself to integrate Redux into my application at an earlier stage,

because it becomes harder to do so once the project becomes bigger.

Aesthetics

Overall, other than the lack of mobile support, I am very satisfied with how my website turned out aesthetically. Although the Drag and Drop interface of the grid took a embarrassingly long time to implement, I am glad I did because it made the site look more sleek and responsive. I wanted my website to resemble Google Keep in terms of ease of use and functionality, and for me there was little point in having a card interface without the ability to drag and drop.

However, due to time and knowledge limitations, I was unable to save the order of the tasks after being dragged and dropped into different positions. I will probably challenge myself to do this next time as I think it is a crucial feature that is not impossible to implement.

Typescript + React

Before this, I have only worked on pure Javascript, but Typescript and React ended up being much more fun to code in than I expected. The initial set up process of Typescript was a hassle, but I eventually grew to love it because of the numerous bugs it can catch before runtime. It also made the code much more understandable and I would surely use Typescript if I were to work in Web Development again. I can see why Typescript is one of the most loved languages on Stack Overflow.

React was also fun because the concept of inheritance and “lifting up the state” from a child to parent component in React was very interesting.

Ruby on Rails

By far the most challenging aspect of this project for me as both the framework and the language was completely new. Only after watching numerous videos on the MVC model, migrations and setting up a CRUD application was I able to confidently work on my todo list. Admittedly, I am still shaky on Ruby and I would definitely need to brush up on my Ruby on Rails knowledge should I enter CVWO.

User Manual

Sign up

For new users, you need to sign up first in order to use the Todo list across devices.

Click Sign up and enter an email and password. Any email is fine as it is just used as a username. You will be automatically signed in after signing up. The session is automatically saved so you do not have to log in again on the same computer.

Add a Task and Subtasks

In the center, type in the task you want to add and press enter and it will show up below. To add Subtasks, type into the “Add a subtask” field and press enter. You can delete Subtasks by pressing the “X” button on the right that appears after hovering over them.

Drag and Drop

You can click and hold to drag and drop the Tasks in card view to organise them. It is also possible to resize the Tasks as well.

Editing Tasks and Subtasks

Editing Tasks and Subtasks can be done in the View Task page. Saving is done spontaneously once you stop typing so you don't have to worry about your information not being saved.

Due Date

A due date can be set at the top right hand corner of the View Task page. The task will be highlighted in red once the due date is reached to remind you about it. The due date is shown in the Homepage for each Task as well for easier reference.

Tags

You can add tags via the top left field “Add tag...” by pressing enter after typing the tag. The tags are shown in the Homepage as well and are hidden accordingly depending on the window size. You can search through tags by clicking on the checkboxes at the side to filter them. The filtering is inclusive.

Completed Tasks

You can complete tasks by clicking the Complete Task button at the bottom of each task. Once they are completed, the tasks will go to the Completed Tasks tab on the left sidebar for you to see your accomplishments. Tasks can be restored via Restore Task and deleted via Delete Task if you don't want to see them anymore.