

CVWO Final Write-Up

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GitHub Link: <https://github.com/izzahaj/tache>

My Thoughts on the Assignment

I had no prior experience in web development (I didn't even know how a frontend and backend worked), so I decided to attempt this assignment to gain a better understanding of it. I only knew basic HTML, CSS and JavaScript but never applied them in a real project before.

One of the most tedious parts of the assignment was to learn multiple web development tools from scratch before working on the app, which took me a couple of weeks. Consequently, I was constrained for time, since I spent more time learning how to use web dev tools than actually working on the app.

With a vast sea of learning resources on the web, it was hard for me to choose one that suited my needs, especially when many of them were outdated. In particular, most React tutorials used class components, but I wanted to use function components and hooks as I felt they would be more relevant in the future. Furthermore, there were many React and Rails-only tutorials, so I had to scour the internet for separate TypeScript and Redux tutorials to properly integrate the tools with my app. This proved to be quite a headache as it introduced a whole slew of bugs each time I added one, and took me days to debug.

Of course, being a complete beginner to web development means that I have plenty of room for improvement. Due to the simplicity of the app and time constraints, there could have been a more complete implementation of Redux. I also attempted to implement user authentication but had to scrap it as I did not have enough time to fix the numerous bugs that cropped up. Given more time, I would also work a bit more on custom styling as I'm not satisfied with how the app looks with Bootstrap.

Overall, working on this assignment has been an extremely rewarding experience, and I thoroughly enjoyed working on my very own web development project despite encountering many head-splitting bugs in my program. I was able to grasp the concept of RESTful APIs and the MVC framework to build robust apps within a limited amount of time, as well as learn to build user-friendly interfaces. I also enjoyed using React as it helped me to better understand the concept of reusability via components, which results in shorter and more readable code. Working on this assignment is very different from what I've learnt in my normal CS classes so far, and I've come to realise that this is something I would definitely like to continue in the future (in CVWO or otherwise).

User manual

Navigation Bar

1. There is a sidebar on the left of the page, which is the navigation bar
2. Users can view all tasks by clicking on the “Task List” tab, which redirects them to a page displaying a list of all existing tasks. Only the task description and deadline are displayed for each task here.
3. Users can also view all existing tags by clicking on the “Tags” tab.

Creating Tasks

1. To create a new task, the user clicks on the “Create New Task” button at the top of the “Task list” page.
2. A “Create New Task” form pops up, where users can input the description, deadline, priority and tags for a task.
3. Users can input more than one tag by hitting enter after each tag. If the tag doesn’t already exist, a new one is created.

Viewing, Editing and Deleting Tasks

Viewing

1. To view the details of each task, the user clicks on the “View” button.
2. The user is redirected to a page showing the task description, priority, deadline and a list of tags belonging to the task.
3. The user can either click on the “Back to Task List” button or “Task List” tab on the sidebar to return to the list of tasks.

Editing

1. The user can edit a task by clicking on the respective “Edit” buttons on the Task list page.
2. Alternatively, the user can click on the “View” button, and then click on the “Edit” button displayed on the page of the individual task.
3. Clicking on the “Edit” button causes an “Edit Task” form to pop up, where the user can edit the details of the task (similar to creating a new task).
4. Note that deleting a tag from a task only removes that particular association with the task. The tag itself cannot be deleted from the tags input bar.

Deleting

1. The user can delete a task by clicking on the respective red trash can buttons on the Task list page.
2. Alternatively, the user can click on the “View” button, and then click on the red trash can button displayed on the page of the individual task.

Searching for Tasks

1. The user can click on the “Show Search Bar” button at the top right corner of the Task List page to display the search bar component.

2. The user can search for a task by description in the “Search” field. If the search field is empty, all existing tasks are shown
3. The user can sort the search results using the dropdown menu under “Sort by”. Tasks can be sorted by deadline, alphabetical order of task description or reverse alphabetical order of task description.
4. The user can narrow down the search by priority, due date and tags.
5. The user can choose between 5 options in the “Priority” dropdown menu:
 - a. Show all: displays tasks regardless of priority
 - b. No/Low/Medium/High Priority: narrows search to desired priority
6. The user can choose between 7 options in the “Due date” dropdown menu:
 - a. Show All: displays tasks regardless of deadline
 - b. Today: displays all tasks due today
 - c. Tomorrow: displays all tasks due tomorrow
 - d. This week: displays all tasks due within the next 7 days
 - e. In 2 weeks: displays all tasks due between 1 week and 2 weeks from today
 - f. In a month: displays all tasks due between 3 weeks and a month from today
 - g. Overdue: displays all tasks that are past their deadline
7. The user can filter their search with more than one tag. The results will only display tasks that have *all* tags inputted.

Deleting Tags

1. The “Tags” tab on the sidebar redirects the user to a page displaying a list of all existing tags.
2. The user can delete any tag by clicking on the small cross next to it. Deleting a tag would automatically remove the tag from all tasks associated with it.