

Overview

During the welcoming ceremony for the year 1 computing students, I heard about this extraordinary opportunity and I was thrilled to be challenged and excited to take part in CVWO. However, as I got deeper into this assignment, I was shocked by the sheer amount of materials we have to learn and wanted to give up on numerous occasions. Faced with the tasks of learning so many new languages and frameworks and admiring the impressive works of my peers, I found myself experiencing stress levels far heavier than exams. As someone who came to SoC with no prior coding experiences, I felt stretched more than ever. Nevertheless, I am proud to endure through and put up a web forum application together. This assignment gave me the opportunity to learn about web development, JavaScript, HTML, CSS, TypeScript, React, Tailwind and Ruby on Rails. Although I have attempted Go, Redux and Docker, I was unable to use them at a satisfying level, hence they are left out. Nevertheless, I was surprised to see how much I've learnt in a short span of less than two months.

Specific Areas

TypeScript

During CS1101S, we were introduced with Source, a subset of Javascript. Having gotten familiar with dynamic typing, trying out TypeScript was both intimidating and difficult. Defining types and being bound to these definitions seemed like a hassle initially and defining types and satisfying the type definitions felt redundant just like answering one's own question. However, as my application grew more complex, I soon realised how static typing is a lifesaver when it comes to preventing bugs and writing safer code especially with a larger application. Defining types is almost like making a promise that must be fulfilled. When the promise is not fulfilled, TypeScript reminds you what needs to be done and quickly gets you back on track. Having said all this, there is still much more to learn about TypeScript and I hope I get the chance to do so in CVWO.

React

React is the first framework I learnt and it felt like a brand new language initially with its syntax and appearance. But having tried to design a website using vanilla JavaScript while following lectures, I immediately recognized its power in dividing websites into reusable components that can be rendered based on the state of the application. It allows more abstraction and divides the huge task of creating a web application into smaller, more manageable chunks.

Tailwind

Of all the new things I have learnt, I enjoyed learning and using Tailwind the most. As you could probably tell, I spent a lot of time designing and refining my forum application's appearance. In fact, I instantaneously switched away from MUI after trying out Tailwind as I believe any styled component library can only take the aesthetics of a website so far. Using Tailwind provided full control of how I wanted

my website to look and it allowed me to do so quickly. Tailwind provided perfectly designed pre-defined css classes and it made media-query easier than ever, allowing me to put together a responsive website for screen sizes as small as iPhone SE. What I love about Tailwind the most is how together with React, it is able to put everything frontend is about in a single .tsx file. React integrates HTML into JavaScript and Tailwind brings CSS into HTML and makes inline CSS amazing and effortless to work with. With their powers combined, it eliminates the need to switch between CSS, HTML and JavaScript files while the opinionated nature of React and Tailwind still gave developers full control over their creation.

Reflection

This assignment really showed me the world of real software development. Having spent the entirety of my summer break on this assignment, I realised many things I have done wrong while looking back but they are also valuable lessons and so I do not regret making them. I spent the majority of my time watching lectures and tutorials on languages and making apps. While I did follow along with them, after the end of the three weeks, I eventually realised that I did not learn much at all. In fact, the majority of the growth happened in the final week of the summer break until now, where I spent time writing bugs (no joke), pulling my hair to find them, banging my head against the wall to figure out why things didn't work and finally reaching the moment of enlightenment. I realised the most effective way to learn to write codes of my own and struggle rather than blanking taking information in. On the day before I began working, I was so excited to finally make my own website that I couldn't fall asleep, thinking of crazy designs and features I wanted to implement. Yet the next day, I sat before my computer and got stuck after writing just a few lines of code. Through this, I learnt the way of the developers. Learning how to get "unstuck" by looking at various channels to seek help and learning to rely on other brilliant developer's work (such as stripHTML). Although I wished to incorporate more Level-5 features, with the remaining time available, I decided that it is far more important to ensure my application is robust (bug free and thoroughly considered the edge cases). I have done substantial testing to quality check my application and I want to thank all the kind individuals who helped me test my app. Overall, I have grown a lot over throughout this assignment. Although my submission may be weaker than most of my contenders, I hope I have demonstrated my passion for web development and CVWO, my resilience to setbacks and my determination to improve. Of all of the VIA projects I have done, CVWO is the first project I wholeheartedly felt passionate about, where I believe I can truly put my heart and skills to use and serve the community. Thank you for reviewing my submission and considering me.

User manual

Navigation	
ChatBubbleIcon	Click to go back to index page, where all posts/threads can be viewed
General	
Category links	Click to view posts belong to a specific category
Searchbar	Entry keywords to search posts by title or author name
Log in/sign in	Go to login/sign in page
Log out	Logs out
User icon / username	Go to specified user's profile page, which displays this user's details and the posts this user has made

Content	
Create post btn	Opens a text field for a new post
Shuffle btn	Reorders posts by last edited date

Post	
Pencil btn	Enters edit mode
Delete btn	Deletes post
Post/edit btn	Submits / edits the post
Cross btn	Exits edit mode (will not save)
Comments btn	Views the comments belonging to this post

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