

## **Challenges and Improvements to Our Website**

Through analyzing the different course websites, there were a few issues that arose.

Firstly, when accessing the website through a mobile device, the page was small and the text became difficult to read. This made it hard to navigate, as the buttons on the menu section were difficult to use. On top of this, the website uses an embedded Google Calendar. Though this may be useful, when trying to access the calendar, it prompted the user to enable cookies and allow Google to access website data. Many users may find discomfort in doing so, deterring some from using the feature at all. Finally, the website didn't have a dark mode element. Though it does not improve functionality, user preference is an important factor to consider. Many users prefer dark mode as it reduces strain on the eye. Without it, many who are used to it may find it tiring to use this website for an extended time. Overall, through careful analysis, there were small issues on the course website that could be changed to improve user accessibility.

While developing our CSCB20 web application, some challenges occurred. One of the biggest challenges was utilizing CSS flex boxes. At moments, it was difficult to align different elements in a way that made our page look structured and created challenges when it came to our web design. To overcome this challenge, we implemented different flexbox properties. Some properties include flex-grow which helps items in the flexbox adjust relative to others, and flex-direction to control the direction it is laid out. Utilizing such properties allows the website to adjust its appearance, depending on the size of the webpage. Another challenge that arose was opening links within the website. Instead of opening in a new tab, the links opened in the same tab.. To combat this, we tused "target = "\_blank"" so that the pdf would open in another tab. This made accessing the pdf more accessible and convenient for the user.

Through implementing different elements, our website has many improvements compared to other course websites. Firstly, the tutorial/lab calendar is made purely through CSS and HTML. Unlike other course websites, this new calendar doesn't require a third party, eliminating access issues and giving users a smoother experience. To further enhance user accessibility, we implemented a drop-down button, which changes colours when links are hovered over. This made our website more concise and the different colours made it easier to navigate. Lastly, we improved the website's colour scheme. Although we have a limited palette, we selected complementary colours that make the website more visually appealing. We also added a dark mode, which helps to decrease the strain on the user's eyes, helping enhance the website's usability.

In today's world, having an accessible web application is essential to provide a positive experience to users. However, the process comes with its challenges. Through analyzing other course websites, overcoming programming challenges and improving different elements of our website, our group was able to create a dynamic website that is both user-friendly and accessible to visitors on different platforms.