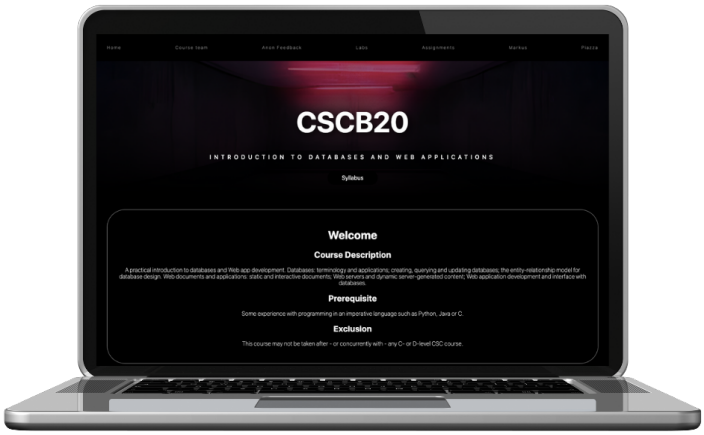
CSCB20 Website Redesign Report

The former CSCB20 website was redesigned and developed after an analysis of its design and functionality, as well as considerations for improvement. Our group explored the process of redesigning a website from the ground up. We used a tech stack that included **Figma** for design as well as **HTML** and **CSS** for development, with a focus on **UI and UX coherence**, working together to create a better overall web experience. The content of the redesigned site was largely carried over from the previous site, with some changes in added sections.

1 Transformation



2 Main UX/UI considerations (Problems & Resolutions)

This section answers the following questions:
– What issues and problem did you notice with some of the previous websites?
– How did you address these issues in your redesigned course website?

The most important stage in redesigning the website is understanding how the intended user demographic interacts with it. As such, our team conducted research and compiled the top three things students want from course websites: they must be easy to navigate, help students keep organized, and allow for better communication with instructors.

2.1 Navigation

From the aforementioned list, it is easy to see that the first major goal in redesigning our course website was to achieve a system of organization and navigation that was easier for students to understand. We aimed to create a user experience that was conducive to guiding users through the entire course website, from the home page to subpages to external links. We also wanted to make sure that external links open in a separate tab so that students aren't redirected to another page and can quickly close the new tab when they're finished without losing their original webpage location. In order to preserve the readability of the core website content, we set the course home page as the default landing page.

To accomplish all of the above, we created a sticky navigation bar for various categories, thus eliminating the need to scroll back up to navigate through different pages, and placed pages at the top of the screen, rather than on the left, with links to the key sources of information listed below:

- Home
- Course team
- Anon Feedback
- Labs
- Assignments
- Markus
- Piazza

2.2 Aesthetics

The former website was not UI/UX coherent. From a UX perspective, the majority of computer science students prefer a dark theme that's easy on the eyes since they spend most of their time in front of a screen. The dark mode theme does provide a better user experience for our new website. Students feel like they're not being blinded by the white background, and it's easier to focus on reading content.

From a UI perspective, the website theme was bland and not aesthetically pleasing. Our group wanted to maintain the navigation and aesthetic appeal of the current website but enhance it with a theme that would make users feel like they could find their way around. In addition to curved edges in container borders, we tried to incorporate a contrast between neon red and black. Curved borders offset the boxy screen and add the allure of a smooth, iPhone-inspired design.

2.3 Responsiveness

The former website was not mobile-friendly as it was designed for old monitor resolutions. In a new standard monitor resolution, the webpages would mostly occupy the left side of the screen. The fixed width of the page allows for an overflow of content, which in turn creates an unreadable, awkward layout on mobile devices. The user would then have to scroll left and right to read the page content. For example, the home page content was on the left side of the screen, but the centre and right sides of the screen were essentially whitespace in a broad column. The website had to be optimized for different sizes of devices. In contrast, our website is responsive, ensuring a great browsing experience for users on any browser and device. We used media queries to ensure the website could support desktop, tablet, and mobile landscape and portrait modes. We've also addressed the issue by using containers relative to the size of the screen rather than having fixed widths for the content within.

The old website used tables for the assignments page with a landscape layout, which meant that it was very difficult to read all of the information on a small screen. The new design used a grid layout with unfixed width, as well as media queries to adapt the font size, which allows for the information to be read more easily. A side effect of a responsive design is that the content can be organized in a much more intuitive manner, thus we had 3x6 layout for rows and columns instead of 6x3. Also, the optimal reading length was determined after testing various default sizes and the suggested common use size.

2.4 Content Organization

The old website used tables for the assignments page with a landscape layout, which meant that it was very difficult to read all of the information on a small screen. The new design used a grid layout with an unfixed width, as well as media queries to adapt the font size, which allows for the information to be read more easily. A side effect of a responsive design is that the content can be organized in a much more intuitive manner. Thus, we had a 3x6 layout for rows and columns instead of a 6x3. Also, the optimal reading length was determined after testing various default sizes and the suggested common use size.

In addition, our course team page includes the main core team that will run the course, including the professor and TA's, as well as pictures of all three team members. A few of the course pages on the given websites were either incorporated into the main page or did not include the same amount of information. We made it so that the course team has its own separate page and includes more information. We also made our labs page with each week's content much easier to access. The design allows each student to find each week's tutorial content super easily. Our websites' design and added content fix the small issues that were on the websites from past courses.

3 Challenges

This section answers the following questions:
– What are some challenges that you and your team member faced? How did you go about addressing these challenges?

One of the most difficult issues we had with the course team and the labs page was formatting our styling to work well on mobile devices. The first few versions of our website did not work well on mobile devices, and when viewed on tablets and phones, it left white spaces under the navigation bar and above the footer.

In addition, it was also critical to ensure that the content on our page was still readable for mobile users. We were able to make the webpage look much better on mobile devices after incorporating various CSS components into our styling. We've also taken the approach of developing from the mobile view, which allows us to change the padding and container layout based on the device. We ended up always starting with the smallest screen size we could support and working our way up from there. This approach enabled our team to design the site with complete confidence that it would fit other screen resolutions without affecting how it looks and functions.

Due to flex body height restrictions, we had a problem making the navigation bar sticky at the top of the screen, but we were able to make it work by using top:0 and also by changing the z-index to bring the navigation bar to the front.

Furthermore, implementing tables without using the HTML table tag was difficult because we had to use a grid layout to make the containers behave like a table. This approach worked because we had not used the HTML table tag and thus did not lose the elasticity that it provides. The grid layout was ultimately difficult, but it completed the website's mobile feel by allowing us to manipulate the border edges of each text box.