

## CS 609-301 - Final Lab

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In this lab, I rebuilt my introductory project website. At the beginning of the semester, I had very little knowledge about web development, so I made a lot of structural mistakes when I did my first site. My first lab was a portfolio website. I made some key structural improvements in this lab and added some exciting features; I switched from using HTML to using PHP, I added cookies and included some new JavaScript interactive features.

Because PHP allows the generation of dynamic webpages, server-side code execution, and allows the reusability of code, I switched from using HTML, which is limited in these areas to PHP. Instead of rewriting code, I used the “php include” statement to repeat the code at areas where they were needed. I created different PHP files for the head, header and footer and included them in the various pages.

I created a contact form which allows users to send me an email directly by filling and submitting the form. Users will not have to open a separate application to send me an email. I was able to do so with the use of PHP form handling. Also to help me keep records of mails I receive; I used the PHP fopen function to append all the emails sent from my site into a file.

An additional feature was a toggle theme user interface feature which changes the view from regular light mode to dark mode. I created this using JavaScript. I first stored all my color variables in the CSS root selector then I used the JavaScript querySelector method to get the colors and change anytime the button is clicked. This feature is great for users who find difficulty in reading from blue-turquoise light screens and helps save battery life of some devices.

In the first submission, my projects section was poorly organized. Now I used the iframe tag to embed the projects to allow the user to have a limited glimpse of what the project looks like while enticing them to click the link to view the whole project. I added some JavaScript interactivity to the project section by making it a slideshow where the user can swipe between projects.

I also created and added cookies to the site with the use of JavaScript. The cookie stores the latest message for 90 days and then deletes it.

I did some major changes to the CSS styling of the site. In my first submission, I noticed that my fonts had the same size in desktop, tablet and mobile view. In this rebuild, I used the CSS @media selector to scale the font when the screen size changes. I also changed the scroll behavior to smooth create a smooth scrolling animation when the user scrolls through the webpage.

If I were to release this site, I would use the LAMP stack. The LAMP stack is one of the most used web stacks in the world and I would personally use it because it has been time tested, it is cost effective and most importantly for me, it runs well on any operating system.