Lappeenrannan teknillinen yliopisto

Software Development Skills Front-End, Online course

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LEARNING DIARY, Front-End MODULE

Date : 18.6.2024 – 27.6.2024

Activity : Self-learning of Front-End development

Learning outcome: The use of various SCSS and JS tools in order to create functional and stylized websites and applications.

**LEARNING DIARY**

**Task 1**

18.6.2024  
  
The material went over some stuff I was already familiar with, such as setting up git and how to install node packages, before getting a little bit into the first new thing for me: SCSS. I had used regular CSS a little bit in the past, but this SCSS thing I had not even heard of until now. So far it hasn’t been used much though, and I haven’t seen any new advantage to it yet, but I’m sure those will come later.

I also found out about some handy VS Code plugins that I already rather like, live server especially is a huge QoL booster.

**Task 2**

22.6.2024

Those advantages of SCSS that I hadn’t seen in the last task made themselves seen by allowing me to use variables and nest the styling of child elements inside the parents (which, while technically doesn’t let me DO anything new, does make the code much more readable), and yeah, now I see why SCSS is something I like to call “big good.” I also learned about mixins, which seem to basically act as functions for SCSS (and maybe they work in CSS as well? Not sure)

I also found out about a few extra miscellaneous things I had not ran into yet, such as z-indexes and vh units. The material also had a very good explanation on the difference between rms and rems, which allowed me to understand it much better than previously.  
 The one question that I was left with, however, was what is the difference between setting the height of something as 20% vs 20vh? Fortunately, the dynamic duo of Mr. Google and Mr. Stackoverflow were here to help and explain that vh can be used to always refer to the absolute size of the screen, while % is stuck referring to the height of its parent element. The same stackoverflow thread also confirmed what I suspected: There is also a vw, a width equivalent of vh.

**Task 3**

22.6.2024

I learned about using JavaScript to affect the classes of HTML elements and about doing a rotate effect with SCSS on them. I had seen stuff like this online and always assumed they were done with some kind of animation file, but it turned out it can be done rather simply with the transform and translate functions. Definitely makes creating these types of visual effects (and especially tinkering with them to get them to look just right) far easier than I had expected.

Another interesting tidbit I came across was that in the video, the \_menu.scss file gains access to \_config.scss from both of them being included in the main.scss file, without the \_menu.scss file needing to include the \_config.scss file.

**Task 4**

22.6.2024

Not too much happening with this one, just learned about moving elements with the translate3d function and how to use media queries for determining the size of the screen. The rest of the task was simply using things from the previous tasks to react to adjust the site to the size of the viewport.

**Task 5**

23.6.2024

Another task without much new, though this time it wasn’t for the lack of content, but due to me being already familiar with CSS grids prior to it. Though I can confidently state I wish I was not, as this video seems like it would have been a much easier to learn it with when compared to my previous method of diving blindly into the documentation until I find something that looks like it could work.

**Task 6**

23.6.2024

For the first part where the work page was being made, there was once again, not a whole lot happening. The only new tidbit I learned was how to extend classes in (S)CSS. I had already known it was possible, technically, due to having seen it being mentioned in Stackoverflow during my research in a previous project, but simply had not needed to use it myself and therefore did not know the syntax for it.

Part 2, the contact page, used flexbox instead of grid though. While I was familiar with the differences between the two of them, I had not actually used flex yet, so this was a new leaning experience. Sadly, the video barely had any stuff on it, so I can’t say I feel that I learned a lot about its use, but I can at least set one up now.

**Task 7**

23.6.2024

This task was short but extremely useful. I had thought I’d need to pay for a domain to be able to get my sites online but not only has this final video taught me that GitHub has got my back for free, but that it is also extremely easy to do so. I may still use custom domains in the future if I publish anything for the public to see rather than just a handful of associates, but for now this is huge.

**Project**

24.6.2024 – 27.6.2024

While the project was mostly utilizing the skills I learned in the chapters, there were a couple ideas I had that required going out of my way to learn new things: In particular, the scrolling effects. While I initially thought they’d be simple to do, I ran into far more issues than I expected with the actual execution of them.

In the case of the vertical scroll, the issues stemmed mainly from a problem of the mouse wheel being rotated enough to register twice causing the site to abandon its current slide and stop in the middle of the scrolling animation. While I had surmised that forcing a delay between the function calls for the scroll was the key to fix it, I continued to have the same issue even after doing that. It took me a while but after randomly moving the check from the determineScroll function to the addEventListener, it started working correctly.

The horizontal scroll, meanwhile, took me an entire day to fix. To this day I’m not fully certain it’s going to work correctly in all circumstances, the code is kind of held together with duct tape, chewing gum and prayer. The problems largely stemmed from the pictures being different sizes, which caused issues with them not aligning properly or not centering properly or not showing up at all or about a million different other things, and every time I fixed one issue, it felt as though it broke something else. I also wanted to make the scroll loop rather than go back to the start after finishing, but frankly by the time I got it to the point it now, I didn’t want to spend another second looking at it.

Another problem I had was the mobile layout. Not only was fitting some of the pages on my site into a small space rather difficult, but I also ran into an issue where I assume the top navigation bar of the browser messes with the positioning of some of my buttons. I found some stackoverflow threads talking about a similar issue and their suggestions about using svh instead of vh sadly did not work, so I tried simply moving the buttons further up and and down but for some reason it felt that no matter what I did, one of them was always out of view. In the end, I just said, “screw this” and removed the scroll buttons on small screens entirely and made the mobile users rely on the menu for navigation.