LUT-university

Sofware Development Skills

Saku Miettinen, 001137859

LEARNING DIARY, SOFTWARE DECELOPMENT SKILLS: FULLSTACK MODULE

**LEARNING DIARY**

6.9.2023

I went over the basic information of the course to understand what is required for the completion. I have some prior experience with git and a bit of experience with frontend development so I wanted to firstly become comfortable with git and source control and secondly get to understand the connection between the front- and backend of a project. This also provides a new opportunity to learn how angular differs from react since I have learned react when I first started getting into coding.

I also went over the Node portion of the course and built everything in the tutorial to get a basic understanding of Node and what is required to deploy an application. I made a heroku account and used that to deploy my test app.

7.9.2023

Since I forgot to push my code from the node section of the course to git, I had to start with that. I created a bitbucket account and created a repository for the whole course that includes the course exercise materials and the project itself. This took me way longer than it should have since I had already made the coursework part of the folder into its own repository for the Node.js part so it took me a while to figure out how to include it as a submodule in the parent repository. Ofcourse I could have just copied all the files but I wanted to try it this way. Once I got that working I started going through the MongoDB part of the course. It took a bit of experimenting and figuring out what works and what doesn’t since the video is a bit old and some of the command have been replaced by others and I still don’t think everything is working as it should but atleast it seems that I can keep going. It was very cool to see a different way of handling a database since I have some experience with SQLite and the fact that you don’t need the provide the exact same fields for every document in a collection is very nice.

8.9.2023

I finished the MonboDB portion of the course as it was pretty simple. I had a lot of time so I decided to go through the express.js part in a single day (Maybe not the best idea). I had a fun time all the way until the part where handlebars was introduced. For some reason it was very confusing. Getting to finally understanding how to start forming an API was very rewarding even though it was very basic. Still I’m probably going to have to visit this part at another time since I want to get more comfortable with setting up the routing and the different HTTP request methods and probably also modify the handlers to do something else.

9.9.2023

Spent the day going through the angular video. Angular reminds me of React but also doesn’t feel the same. Although I don’t remember react that well since it has been 1,5 years since I last used it, I still feel that as a complete beginner in the coding world it was still somewhat understandable, meanwhile having that 1,5 years of experience Angular still feels as challenging React as a beginner.

23.10.2023

I made the mistake of doing too much too fast and when other courses really started to get going, so I kind of forgot about this course. Now the time I have left for the final module and the project itself is getting fairly low. Anyways I started going through the mean auth app tutorial project to bring back the knowledge gained in the earlier modules. Everything went hastily until the fifth video in the tutorial series when the angular cli came into the picture. This gave a whole bunch of problems and errors with it that I wasn’t able to proceed any further.

24.10.2023

I spent the whole day trying to figure out what the root causes of the issues are. After copy pasting the whole source code from github, trying different code solutions, and downloading different versions of all the related programs I found the setup that finally allowed the tutorial project to run on my system. I had to downgrade Node to version 12, downgrade npm to a compatible version, and most importantly and the problem that took me the most time to solve, was to downgrade my mongodb driver to version 3.4.24. Finally all critical errors were solved and my program ran well but it was at the cost of not having almost any of my own code in the tutorial folder. This lead to me probably not understanding the things as well as I could have, but atleast I undestood the basic concept of how to combine all the tech to build and combine the back- and frontend. At this point I also realised that I had merged the original git repository on bitbucket to a repo on github for some reason so that is also what I will keep using.

25.10.2023

I started working on the actual project. My current idea is to use the tutorial mean auth application as the base for my project so that I can skip some of the folder structure creation and component building. I want to create an application that allows a user to “draw” on a canvas element and save the data to a database. I also want anyone to be able to see other peoples creations without the need for a profile. If everything goes swiftly I would also like to add some sort of image editing functionality where a user that maybe has to be authorized in some way can edit any image they see on the page which showcases other peoples work.

I got the basic idea to work so I can save an image to the database and fixed some very weird bugs with the drawing canvas itself. Judging by the performance of the program this isn’t really a good idea since after pressing the save button it takes a few seconds for the imagedata to be saved in the database which is probably caused by the over 10mb size of the canvas data object. Still going to keep going and the only thing to do is to fetch the data so that it can be showed on a featured page and a users own personal page.

26.10.2023

I tried to finish the image fetching and showcasing for the project and I did that by first getting involved in Url search parameters. It was surprisingly difficult to find how to do this in such an old version of Angular since almost all sources on the internet said to use HttpParams but that just lead to an error in Angular 2. After a while I found I had to use URLSearchParams. I don’t know nor do I really have time to find out what the best practice for a case like mine is but I decided that I am going to search the database for images that had the correct username as the creator of the image. This username was provided by the parameters. After trying for a while I wasn’t able to figure out why the imagedata got corrupted in the http request somehow and it wasn’t coming back as an instance of ImageData so I wasn’t able to paste the imagedata to a canvas on the profile component. That along with the poor performance of the program lead me to changing the project to being a quote generation tool rather than an image creation tool. I quickly changed the needed things and got the profile page working so that it showcased all the users created quotes.

27.10.2023

I created the page to showcase “featured” quotes by other people. At this point I had the idea of trying to really reuse a component in multiple places. I could use a component to show a quote on the profile page and the featured page. Because it has been so long since I did the Angular dedicated part of the course I had forgot how to pass different parameters to a custom component and it somehow was not taught in the auth app series?, but I found it out pretty quickly and was able to get my app functioning as I wanted. I applied some better styling and fixed some minor bugs and my project was ready to be returned.

Now that all that is left is to fix up the documentation, I think it is a good point to reflect on the course as a whole. The main point of the course (atleast I think) was to understand how to combine all the needed technologies to create a working fullstack application, rather than becoming a master in one of those individual techs. I think the course achieved this very well, since I have kind of been wondering how it is possible ever since I started programming in the spring of 2022. Now I finally feel like I understand how to do it and I think the next step on this journey would be to really delve deeper into the best practices that exist in the MEAN-stack. I feel like there are a lot of things that could be done better, more securely and more performantly but the most crucial things, I can say I finally understand. Also learned a lot of things that I wasn’t expecting to learn, especially when it comes to combining different version of different technologies together. With that I have to say it would probably be very beneficial for learning to try to find a new series that the course would be based on, so that newer tech could be used and the most annoying errors could be avoided I feel.

With all that said I have to say that this was probably one of my favorite courses I’ve completed :).