Lappeenrannan teknillinen yliopisto

School of Business and Management

Sofware Development Skills

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LEARNING DIARY, <CHOSEN MODULE NAME> MODULE

**LEARNING DIARY**

16.03.2023  
  
To start off the course I went over the general information about the course to check how to complete the course and what needs to be done. Afterwards I started watching the first tutorial video about the example project and followed it to create a sample program of a working website. It will most likely change a lot as the tutorials go on, but I got it working like was shown in the video. Finally, I created a Git-repository, so the code is available online from GitHub.

I am familiar with creating websites from the Introduction and Advanced Web Programming courses, so Node and most of the other things were quite familiar. Though the methods shown in the made program were different from what I was used to. I am used to using Express and routers to send and receive requests, but it was interesting to see different ways to do them instead using other libraries. I learned a bit more about how requests and responses are done overall. I also tried to use Heroku to setup an online hosted website of the program, but it now requires a credit card to verify the account which I wasn’t comfortable with so I will have to find another method to host the website. GitHub has a way to host websites so I will try to figure out if it is possible using their service instead.

20.03.2023

Today I studied and followed the second video from the video tutorials which went over the use of MongoDB and different commands to use it. I am already familiar with mongoose from the Advanced Web Programming course, so I knew most of the commands already aside from a few. All of the commands shown were the same as the commands that you would input into the JavaScript code which I found helpful. In the Adv. Web programming course, we used mongoose inside of the JavaScript file, but in the tutorial the commands were done inside of the mongo terminal which is a bit different. I wasn’t previously familiar with the mongo terminal so it was nice to learn so that in the future I can create databases and collections from the terminal itself instead of creating them alongside the JavaScript program which is helpful.

What was new to me in the video was different ways to updating data inside of already stored objects in the database, which I wasn’t that familiar with before. I’ve had a couple instances where I had to update old data with new data, but it has been quite sparse. There were many good example commands to insert new key values or update existing key values, which will probably come in handy when programming the project.

I think this was a good tutorial to show how MongoDB is used in actual applications and servers, and I believe I learned the basics to be able to use it to create databases in future projects.

21.03.2023

Today I studied the next lecture which included some examples of Express and some of its libraries, as well as the handlebars template engine. There wasn’t much new to learn in this tutorial as I was familiar with most of the stuff from the advanced web programming course, so I knew how to create an Express server and a router, and how to handle requests and responses using them. Though I hadn’t previously used the handlebars template engine so it was new to me. I think I understood the fundamentals of how it works, and I was able to create a simple webpage with a form where you could submit new member data to be saved on the server and all the members would be displayed in a list on the website using the handlebars template.

24.03.2023

In today’s session I went over the first couple parts of the angular tutorial for the ‘Tour of Heroes’ program. In the tutorial I learned the basics of how to set up angular programs in Visual Studio Code, and different aspects of angular such as directives, components, services, and routing. I haven’t seen angular before, so this was all new to me. The example showed quite in-depth instructions and explanations of each command, so I think I understood how it works to some extent. I was able to complete the example program to the point where you’re able to use services to transfer data between the different components, and switch between different webpages to show different bits of information of the heroes and change them. I had a couple points where the program wasn’t working as was shown in the tutorial, but I was able to figure out the problems by going back and checking what wasn’t correct.

I learned how to create components and how its variable syntax works, and how to use services to send data to the components so the data will be displayed on the webpage. I learned quite a bit about how syntax with angular works, and how to use components and services together to create a functioning program. I will continue the tutorial at a later date on how to simulate a data server with HTTP calls.

I found angular quite interesting, and it might be useful to learn so I can use it in future job opportunities if it is required.

27.03.2023

Today I finished the Angular example program Tour of Heroes, where I added the functionality to send and receive data to an API, which would store and change the data stored on a database that stores information about the heroes. This section was quite complicated, and it took me quite a while to get it working. I wasn’t able to get the API URL ‘api/heroes’ to work, as it wasn’t set anywhere in the tutorial, and it was assigned dynamically according to some file. Fetching the URL like how was done in the tutorial didn’t return anything and none of the heroes were showing up on the website so I wasn’t able to test the functionality that was produced later in the tutorial. None of the fixes I found on online forums worked but eventually I figured out that the problem was a wrong import in the app.module.ts file. It was quite hard to find the problem as the program didn’t produce an error message and I couldn’t find which file the error was in. After I was able to fix this issue the rest of the functionality was easier to produce. I had prior experience of APIs on the Advanced Web Programming course, so I was familiar with the get, put, and delete fetches from APIs to change data on a database. Angular is quite different from regular JavaScript so it took me quite a bit of time to understand the fundamentals. I understood the basics of what was produced, but it will take a bit to be able to produce applications on Angular on my own without a tutorial. Being able to communicate between different files was pretty interesting to see, but I think it would take a lot more effort for me to understand it in detail. The one thing I didn’t like about Angular was how all of the code was distributed between so many files, and switching between the 40 different files was a bit of a pain.

Overall I enjoyed using Angular but it was quite difficult to understand as it wasn’t similar to other template engines I’ve worked on, and the communication between the files seemed quite strict and one thing being wrong made the whole module not work. I would assume you get used to working on Angular as you create more programs using it so it might become a bit clearer eventually.