Lappeenrannan teknillinen yliopisto

FiTech

Software Development Skills Fullstack, Online Course

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LEARNING DIARY, CT70A9140 MODULE

Date: 3.5.2024

Activity: Course start, setup and NodeJS and MongoDB modules

Learning outcome: Brushing up my skills in two very familiar technologies.

Date: 4.5.2024

Activity: ExpressJS module

Learning outcome: Review of familiar concepts, but also some new tricks

Date: 5.5.2024

Activity: Angular module and the MEAN-Stack video

Learning outcome: A good dive into Angular; although already familiar, it has been some time I have used Angular previously.

Date: 11.5.2024

Activity: Began work on the course project

Learning outcome: Web-app design, passport-jwt and validator use

Date: 18.5.2024

Activity: Finish server building

Learning outcome: Express.js and MongoDB skills

Date: 10.6.2024

Activity: Building the client for application

Learning outcome: Angular development skills, building navigation, login and registration functionalities

Date: 17.7.2024

Activity: Continue client development

Learning outcome: API security, Angular interceptors and guards

Date: 18.7.2024

Activity: Finish the client and testing

Learning outcome: User interface design and development

**LEARNING DIARY**

3.5.2024

Quick setup for my development setup, just updated my Neovim plugins, and I was good to go. Watched the first two modules back-to-back, and decided on going through the exercise materials afterward, since these technologies are fairly familiar to me, so no big surprises should be in store.

All in all a good brush up for my existing knowledge and skills with the technologies, it was interesting to build a web server only with Node (and makes you think why would one do that). The exercises are still fairly easy to understand, but it’s fun to play around with them.

Already began thinking about possible projects for this course. Started this diary at this date, by the way.

4.5.2024

Watched the ExpressJS module and decided once again to do the exercises afterward. ExpressJS is something I’m very familiar with already, so the module did not really contain any new information; still it is good to review these things from time to time, and who knows, maybe I’d get some new ideas doing that. After all, ExpressJS is very free when it comes to how you can use it, so it is good to see different ways of utilizing it. Exercises were pretty straight-forward, so on to the next module.

Still haven’t figured out a project topic, could ask ChatGPT for some ideas.

5.5.2024

Took a quick browse of the Angular video, and then decided on relying more on the written documentation. Angular is such a massive framework, and the differences between versions can be quite large; so best rely on the primary source of information on how everything works. Also watched the MEAN-stack video, which gave me a good starting point on creating my own course project.

11.5.2024

Began building my course project by selecting a topic and designing the app around the selection. I decided to make a budget manager, so I began drafting the database structure and views based on the functionalities I want.

Began building the server for the app, and configured the first version of the MongoDB tables. After I could create some testing routes that could be used for testing and building the server-side authentication and validation solutions. I decided on using passport-jwt and express-validator, since they are tools I am already familiar with.

18.5.2024

Finished the server building today. It was only the matter of building the necessary routes for data and authentication purposes; since appropriate middle-ware is in place and working, building new routes is fairly straight-forward.

10.6.2024

Now that server is built, I began designing and building the client for the application. It has been a little while since I’ve used Angular previously, but having used it quite a lot in other projects it didn’t take long to get back up to speed.

First off, I built the navigation for the application. Navigation uses a toolbar and/or a collapsed menu (depending on screen size), and is built using Bootstrap. The views in the application just contain router-outlets where content is displayed.

After navigation was sorted the next thing on the list was to build login and registration functionalities. Got started on those.

17.7.2024

After a hiatus, returning to work on the client. Finishing the login and registration on the client-side, realized that the security in my API routes was not any good; so fixed those by re-writing some of the routes.

After the API/server routes were fixed, the client also needed some added security. Began work on Angular guard to force logging in for the user, paired with an interceptor to attach the auth token to every outgoing HTTP-request.

To keep things interesting, had also the privilege of dealing with CORS-problems. Seems like I have to fight with the thing every time, but one would imagine that these problems wouldn’t persist like this after dealing with them countless times before.

18.7.2024

Wrote the few remaining components for the applications and cleaned up unnecessary or unwanted components. During the development I have tested quite a few different ideas for the client, but most were impractical or confusing to use. So those were eliminated from the final version.

Then it was just the matter of testing different parts of the application and committing them to the repository. With the project complete, it was time to submit it along with the necessary documentation.