

Lappeenranta teknillinen yliopisto
School of Business and Management

Software Development Skills

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LEARNING DIARY, Back-End 2020-21 MODULE

LEARNING DIARY

3.1.2021

Today I first read the general course information and environment setup. The environment setup was the same as in front end course which I completed before this course. I'm going to use visual studio code and Git as I did in the front end course. The course information was very similar and now I know what I need to do during this course.

I watched the video about REST API concepts and examples after creating a GitHub repository for the content I'm going to create during this course. The video gave me an idea about what is REST API and how it can be used.

I started on the NodeJS crash course and I went through the first hour of the video. So I now have made the reference files and I've gotten a basic understanding on how some node modules work. I also created the logger that was mentioned in the video as "homework". The logger I made creates a file and then logs each log in the file.

While working on the NodeJS crash course I realized that using the modules in NodeJS is very different from the Javascript that I've used in the past. In the past I've completed a very basic 5ects course on Javascript/html and I feel like that course doesn't provide much help in Node.

4.1.2021

Today I completed the rest of the NodeJS crash course. The last 30 minutes was considerably more difficult than the first hour. I do think I understood all of the code introduced in the video.

I had some problems when deploying the application to Heroku. These problems were caused because I have all the files in this course in the same directory. I only had to deploy one folder. I managed to solve this problem of mine quickly and everything works now.

Using Heroku was interesting because I've never used it before or read about it in depth. I've only heard about it briefly. Now I know a little more about Heroku and how it's used. Heroku really seems like a useful service.

5.1.2021

Today I studied through the MongoDB crash course. The crash course wasn't hard because I have prior experience from using SQL databases and MongoDB seems to be similar. I can think about uses how MongoDB can be used. MongoDB Atlas also seems like a useful tool to have.

6.1.2021

Today I studied the first 40 minutes of the Express JS crash course. During that time, I didn't face any real challenges. I think that this far using Express to develop is simpler than using only Node.

The first thing done in the Express JS crash course contained most of the things that were done during the Node JS crash course. The effectiveness this far has amazed me.

9.1.2021

Today I completed the rest of the things included in the Express JS crash course. Those things were the put, delete and post. Also, the basic graphical representation of the data. These things were done in 30 minutes on the video. I used about 50 minutes because there was a lot of information.

I think that the functionality of put, delete and post is amazing, and I really love knowing how it works. Also, I need to be aware of their functionality to complete the project which I have slowly started thinking about.

14.1.2021

Today I only had a really limited amount of time to work so I studied through the first 12 minutes of the REST API from scratch. During that I created the server and the routing for calling the API.

In the tutorial a visual studio extension was recommended. I decided to not use the extension since I already know how to use Postman and I want to get more comfortable in using Postman.

While working through the first 12 minutes of the exercise, I didn't face any difficulties. Everything worked as intended and I understood what I was doing at each step.

16.1.2021

Today I worked on the rest API exercise. I didn't face any problems understanding the things in the video because they were explained in the Express JS crash course. I also took my time while working through the exercise because I was very tired.

I think that in the video it was interesting how easy it really is to create a REST API from scratch. Especially the creation of a local database was surprisingly easy. Overall I think that the video taught me a lot and I understand the subject way better now.

I now feel like I understand REST APIs enough for the project now. Since the creation process of this kind of API is now done step by step. Only thing that I need to figure out is making the database not local and deploy on Heroku. I'm going to guess that in the project using Express JS counts also as using NodeJS since Express is based on Node.

17.1.2021

I started working on the project today. I do have some confusion about the project because I don't really know it can be made much different from the REST API from scratch part of

the course. I decided to make an API where there is information about vehicle registrations. This info contains the license of the vehicle, the type of vehicle, the vehicle brand and the registration date.

I started the project by making "server.js" which contains the database connection and the port that is being listened to. I created the database connection through a .env file. It surprised me how easy it was to connect the program to a Mongo Atlas cluster. I didn't face any difficulties with it.

I also created a file for the routes. I also created the model by which the objects use in the API. I did not face any major difficulties because the code is very similar to the code done previously on the course.

18.1.2021

I continued work on the project today. I created the routes for the API, they are a little different about one of the exercises. This time I did face some difficulties.

After coding a large portion of the routes, I had a problem that took me hours to fix. The problem began when I was unable to connect to the MongoDB Atlas cluster. I removed some of the newest code and tested if it worked, it didn't. I tried to configure the settings in Atlas and it still didn't work.

After some googling I found out that the problem might be with my network's settings. During all this time I was in my school. Turns out that my school's network didn't allow me to connect to my database.

In the end I went back some steps because I removed a lot of code by trying to fix the database connection problem. This day ended up being a good learning experience in a way that wasn't planned.

I did make some progress in the routes. Now items can be searched by id and by license. Also, items can be created, updated and deleted.

14.2.2021

Today I spent some time reading what I've done this far in the project. I had to have a long break from working on this course for medical reasons. During this break I forgot how many things worked and how far I've gotten.

I now somewhat know what I have done in the project this far. I think I will be able to continue working on the project even after this long break of mine.

20.2.2021

Today I reviewed the code that I have written and checked that everything works as intended. The REST API now has the functionality to view all registrations, view a single registration based on registration id, updating registration and deleting registration. The registrations are in MongoDB

I decided that this is a good REST API and now I'm going to deploy it on Heroku and return everything I've done during this course.

Deploying the project to Heroku caused some final difficulties. I couldn't get the program to work outside of VS Code. Turns out I had to create a Procfile for Heroku and there was some problems with the Database connection. I decided to fix it by not having the connection url in a different file but in the server.js. This causes security issues but had to do it.

I'm a little disappointed how this course went on my part because I had to have a long break from working. Luckily, I did learn how a REST API is done and how back-end development works.