

Lappeenrannan teknillinen yliopisto  
School of Business and Management

CT70A9140 Software Development Skills: Full-Stack

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**LEARNING DIARY**

## **Module 1: NodeJS**

*02.07.2025*

I started the course by watching the newer NodeJS video on module 1. I learned about node event loop, for example. I had already installed NodeJS on my computer, but I learned how to install a new version, which I did. I learned how to run files with node in the terminal.

I have previously completed some web programming courses like advanced web applications, so I am familiar with some of the concepts explained here, like server ports and some files like .gitignore and .env. Nodemon is also something I have already used before.

Postman was something that I had never used before. I installed VSCode extension for postman, signed in with my google account and was able to use it.

Handler functions and middleware were kind of familiar to me already, but the video showed how they work quite well. While the video explains filesystem, it mentions stuff like promises and callbacks, which were familiar to me already. Some of the module demos were already familiar to me. Process, events and crypto modules were all new to me. I was able to follow the video and made a working example.

I watched the whole video, did the exercises and successfully committed the code to my GitHub repository. Overall, this module was quite easy to follow since I had done most of the stuff already.

## **Module 2: MongoDB**

*02.07.2025*

I continued to the second module, MongoDB. MongoDB is familiar to me already, but the video is talking about MongoDB Atlas service, which is new to

me. I have not used MongoDB through the command line before, so it was quite difficult to follow. I also don't think the video is done very well. It was way too fast for one.

MongoDB compass is familiar to me. It is the one I used in my Advanced web applications project. Aggregations were new to me. The video also showed a VSCode extension for MongoDB. I installed that immediately. The second half of the video seemed to go even quicker, which was hard to follow.

Overall, the video felt like it was not made for beginners. Topics were discussed fast, and explanations were lacking. I think the video was made for people that already have extensive knowledge of MongoDB and not for people who are just getting to know it. Fortunately for me, I have some previous knowledge of MongoDB, but many things in this video were difficult to comprehend. And it didn't seem easy to even try some of the stuff on my own computer. Poor video in my opinion.

## **Module 3: ExpressJS**

*02.07.2025*

I continued by watching the newer video about Express. Express is already familiar to me from previous courses. The video starts by explaining things that are familiar to me already. One thing I learned was that you don't need a third-party package like nodemon to update your server automatically.

Some familiar things were search query parameters and status codes. Easy to understand. CRUD-Structure is quite familiar to me already, so it was easy to follow the instructions in the video. Most of the second half of the video is straightforward, and I was easily able to follow the instructions. I knew how to send API requests from the frontend. Ejs was completely new to me.

This module was pretty easy, since most of the stuff was already learned in the advanced web applications course. Overall, I wouldn't say I learned a lot

of new things. There were some new things and new ways to do something I already knew how to do, but the video itself was pretty good.

## **Module 4: React**

*07.07.2025*

I started the module by watching the React Crash Course video. At the start of the video React is briefly explained. React is familiar to me already from previous courses so I know about states, hooks and components. In the video the react app is used with “create react app” tool, which is now deprecated. I have used Vite before, so I decided to use that for these exercises.

The first half of the video was pretty easy to follow. I was already familiar with things like function props and how to change the state of a component. FaTimes was a new thing. JSON server was a new thing for me. It was cool to learn how to implement a JSON server. Using the useEffect-hook to fetch the JSON-data was familiar to me. Routing was also already familiar to me.

Overall, the video was pretty good in explaining the basics of React. I feel like I learned a little bit of new stuff, but most were already familiar to me from previous courses.

## **Module 5: MERN-Stack, Video 1**

*08.07.2025*

I started watching the first video about MERN-Stack. The topic was somewhat familiar to me already from previous courses. I started by installing the dependencies. For each dependency I asked ChatGPT about them and made some notes about them in a separate file. The syntax used in the video is CommonJS syntax, which is not new to me, but I have not used it on any of

my previous course projects, because we were not taught that. But it was still pretty easy to follow along.

MongoDB Atlas was a new thing for me. It took me a while to set it up. When asked about how to connect, I chose Mongo Compass, since that is one I have used before. I was able to connect my app with the MongoDB Atlas database. If I understand it correctly, now the app can connect to the Atlas database from anywhere. Previously I had only used the MongoDB Compass to save data locally.

I continued to watch the full video. After I connected the database, it was pretty easy to follow along with the video. I was able to implement all CRUD-operations in my app.

## **Module 5: MERN-Stack, Video 2**

*09.07.2025*

I continued by watching the second video about the MERN-Stack app. It was about authentication. JWT more specifically. It was already familiar to me from previous courses, so I didn't anticipate any major problems in this part. I followed the video easily and understood what was explained about authentication as well as middleware. I had already done these previously, so I had no problems following the video. At the end I had a working app with CRUD-operations and authentication.

## **Module 5: MERN-Stack, Video 3**

*10.07.2025*

I continued by watching the next video of the MERN-Stack example project. This video is about the frontend side of the project. The frontend is made with react, which is already familiar to me. A new thing for me in this project is redux. I'm not quite sure what exactly it is, or how to use it, but I'm sure I'll be able to understand the video.

I continued watching the video. When I got to the redux part, I was a bit confused. I haven't heard about slices for example, and the part about exporting the authSlice was a bit confusing. The more I was learning about redux and making authentication with it, the more complicated it seemed. I used ChatGPT many times to try to understand some concepts and logic.

As I finished the third video, I had understood most of the things explained. Redux was still a bit unclear, but I got the basic idea of it. Overall, I think the video was good in explaining redux and how to use it.

## **Module 5: MERN-Stack, Video 4 (1)**

*11.07.2025*

I started watching the last video of the MERN-Stack app series. The video continued explaining redux functionality and structure. It showed how to do a simple UI for the goals. It was pretty easy to follow along, since I had done similar things on previous courses. I watched the video more than halfway, then I had to take a break.

## **Module 5: MERN-Stack, Video 4 (2)**

*15.07.2025*

I continued watching the last video. I finished implementing the remaining features on the frontend, and I had a working MERN app. The last task was to deploy the app. I encountered a slight problem while trying to test the build version of the app. Since the project in the video is made with create-react-app, and mine is with Vite, that meant that when the frontend side was built, it was placed in a 'build' folder, and when I build it, it goes to a 'dist' folder. It took me a while to figure it out.

After some minor problems I successfully deployed my app to Heroku. First, I needed to set access to my database from anywhere. But that was easy.

Overall, I think this whole video series was really good, and I learned a lot of new things. For me, this was the first time I actually deployed anything. I also had to download git for the first time.