Lappeenrannan teknillinen yliopisto

School of Business and Management

Sofware Development Skills

**Antti Keronen, 001855050**

# LEARNING DIARY, FULL-STACK MODULE

# LEARNING DIARY

20.1.2026

I started the course. I had some time to scroll through the moodle page and realized that I started this course a bit late in my studies. I have Advanced Web Applications course going on at the same time so let's see if I can learn something that the AdWeb course doesn't have. At least I get to strengthen my skills.

21.1.2026

I have already done the frontend course, so I'll try to do the same thing as there, which is not to copy much from the demo project and build my own project which has the Mern requirements. I chose vs code as my code editor since I'm familiar with it. I'm also familiar with github so I don't have to spend time learning it. First thing I did was I forked the complete mern demo project to see what we are building and what functionalities it has, so I can start to build the project towards the main end result from day 1.

I watched the Node js video and the teacher/video maker was very good. The video was very well illustrated for beginners. One new thing I got out of it was the encryption part. I found that one interesting.

I watched the MongoDb setup video and now it's the first time I'm using atlas version. I've gotten used to using it locally.

Now on to the Express. The express (new video) didn't provide anything new, so it was kind of a review of the material. I also speed ran the react video, but it was very similar to Erno Vanhala's content in the other course (good content 😊 ).

22.1.2026

I have now watched all the videos and can start making my own project. First, I thought I would build the project while watching the videos, but I think this way it is easier. I figured I will do a simple budgeting tool. I will use the example demo as a base and add more features and make it cooler.

Full plan is to build a budgeting tool for monthly expenses. The main parts are login page, register page and dashboard and comparing it to the demo I'd say everything else is extra. I haven't figured out what features it will have.

Sterted from setting up Mongodb Atlas since I don't have a user. After that I started setting up the backend. Built the backend with Node and Express to have a Rest api. The demo had two models, but I needed three so I changed the goal to budget and created a model for expenses. So I had user, budget and expense models.

Authentication is done with JWT and it uses bcrypt. I kept the error handling and auth middleware and edited them. I struggled to get the monthly query data working, but I got some helpe from geeksforgeeks to implement it.

23.1.2026

Frontend is a combo react+vite. Interface has react and navigation is via react router. I also used Axios with the backend api. Auth is also handled with React context. Now I have pages register, login, dashboard. Components are BudgetCard which shows your budget, Expenseform, where you can enter more expenses, expenselist where you can see all the added expenses, Monthpicker for switching month, Navbar- normal navbar, Protectedroute prevents access without auth. Summarycads which show the totals.

After those were ready, I got to the best part which is playing with Css. I had authentication errors all the time, so I even made the error messages look good. I think the ending result is actually looking great.

I the end I learned how to play with dates and time in js and strengthened my skills. Now I know I can do all kinds of simple task managers and etc.