

Lappeenrannan teknillinen yliopisto  
School of Business and Management

Software Development Skills

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**Full Stack 2022-2023**

## LEARNING DIARY

9.9.2022

I reviewed the general information and the course requirements. The project adopted the MEAN Stack architectural framework to build and implement the functionality of a web portal application. The web portal used Angular at the front-end. In the middle layer, Express and Node.js handled routing and Hypertext Transfer Protocol (HTTP) requests and responses of the web portal. In the back-end, MongoDB stored the data of the web application.

11.9.2022

The MEAN stack framework and technologies were reviewed and researched. The MEAN stack is a popular technology concept for developing web applications. MongoDB for the database, Express(.js) and Node.js for the web framework, and Angular on the client side are the key technologies of the stack's layers. The Visual Studio code editor supported the development operations of the web portal application.

15.9.2022

Research into the purpose and functionality of a web portal application showed that in today's business world, the application is a must-have. Market forces constantly changing necessitate companies to become more adaptable and customer-focused. A web portal is one way for a company to connect with its audience through a single point of contact, reducing customer and client communication. A dynamic user interface on the web portal should provide a comprehensive view of service offerings.

21.9.2022

The UI of the web portal was created on the front-end using the Angular application. Several components were required to implement the Angular framework. HTML and CSS were employed to develop the web portal before splitting the UI into multiple components in Angular. The designed web portal is

responsive and built to work on all devices to meet adaptability and flexibility. The self-service capabilities of the web portal enable users to view incidents and system metrics without contacting the company directly.

6.10.2022

With the installation of Node.js the functionality of the web application was possible in the back-end. Express and Node.js handled web portal routing and Hypertext Transfer Protocol (HTTP) requests and responses in the middle layer. The Express.js server-side framework runs inside a Node.js server in the application tier, where the front-end makes HTTP requests to the back-end of the web portal application based on the user request.

20.10.2022

The MongoDB was set-up and stored the web portal's data in the back-end. MongoDB is a free, open-source database management system for handling and storing data. The free database management system was compatible with Node.js, which handled and stored the data required to run the application over the network protocol. In the database tier, MongoDB is used to fetch and post data in the web portal application via an API in Node.js and Express.js running on port 8080.

25.10.2022

The web portal application underwent continuous and iterative testing. Overall, the result is a functional and user-oriented web portal. The concept of the web portal application also included the need to meet future business requirements.