Week 10: Creating a full stack Web Application

Overview

This week we will be looking at web frameworks and how they can be used to create web applications. We will also think about the architecture of web applications and how they can be structured. By the end of the week, you will have created a web application using the Express framework!

Learning Outcomes

By the end of this week, you should be able to:

- Understanding the principles and technologies of both front-end and back-end development.
- Create a full-stack web application using Node.js, Express, and MySQL.
- Understand how to update a MySQL database with user input.
- Consider various compliance issues and best practices surrounding the development of web applications.
- Implement simple data validation on the server and client side.

How are we going to learn this?

- **Lecture:** In the lecture we will consider various compliance issues and best practices surrounding the development of web applications. We will also think about the architecture of web applications and how they can be structured.

- **Lab:** In this lab session session titled "Creating a Full Stack Application," you will be guided through the process of building a full-stack web application using Node.js, Express, and MySQL. The session covers various aspects, including setting up the development environment, creating dynamic web pages by injecting data into views, processing form submissions, and updating a MySQL database with user input. The exercises involve handling HTTP GET and POST requests, incorporating server-side validation, and rendering dynamically generated content. The lab also will encourage you to explore additional functionalities like creating, reading, updating, and deleting records in the database while building a web application.