SE3040 – Application Frameworks
BSc (Hons) in Information Technology
Software Engineering Specialization
3rd Year
Faculty of Computing
SLIIT
2025 - Practical
Lab 05

Building a Social Media Platform with Express.js

Overview: In this lab, you'll learn how to use Express.js to create a server-side backend for a social media platform. You'll build a RESTful API to handle HTTP requests for creating, reading, updating, and deleting posts. In this lab you can use variables to store data.

Prerequisites:

- Basic knowledge of JavaScript, Node.js, and Express.js
- A text editor like Visual Studio Code

Goals:

- Set up a basic Express.js server
- Create a RESTful API to handle HTTP requests for creating, reading, updating, and deleting posts
- Use variables to store user data
- Use middleware to handle user authentication

Steps:

1. Set up a basic Express.js server:
    a. Install Express.js and create a new Express.js project
    b. Create a basic server that listens for HTTP requests on a specific port
    c. Test the server by sending an HTTP request to it
2. Create a RESTful API for creating, reading, updating, and deleting posts:
    a. Define endpoints for creating, reading, updating, and deleting posts
    b. Use middleware like jason() to handle HTTP request bodies
    c. Use variables to store post data
    d. Test the API by sending HTTP requests to it using tools like Postman.

3. Use middleware to handle user authentication:
    a. Create a basic user authentication system using middleware like JWT
    b. Define endpoints that require user authentication to access
    c. Test the authentication system by sending HTTP requests to protected endpoints
4. Add additional features
    a. Use a template engine like EJS or Handlebars to render dynamic HTML pages
    b. Allow users to upload images to their posts
    c. Implement pagination for displaying posts

References

1. https://github.com/Thusithanjana/AFExpressJS
2. https://www.npmjs.com/package/handlebars
3. https://www.npmjs.com/package/jsonwebtoken

Once you complete the project. Submit it to the GitHub classroom.

https://classroom.github.com/a/E3syZa3P

Please note that this lab will not be evaluated as an assignment