Advanced Web Applications

Project documentation:

Technologies used:

For the backend, I used Express as the framework, and utilized MongoDB as my database. MongoDB was used with mongoose. On MongoDB I had two schema, one for users and one for code posts.

For my frontend, I used React as frontend framework. In addition to React, I used MUI as my material UI which helped to make cleaner looking components and as well as helped with keeping the app to have responsive design.

For authentication I used JSON web token, and I stored the token inside browsers local storage so the sessions would be saved. This might not be such a smart thing to do for a real project, but I decided that it is suitable for this project.

Users passwords were crypted using Bcrypt.js, and the hashed passwords were saved to the database.

Installation process:

When the project is imported from GitHub, you need to do the following steps to install node modules. The project is able to run only on dev environment at the moment.

1. Change directory to server (cd server), and then run the command “npm install” to install packages
2. Change directory to client folder (cd client), and then run the command “npm install” to install packages
3. After the packages has been installed, then change the folder back to main project folder. Now we need two instances of PowerShell app open.
4. On the first PowerShell app you need to first open the main project directory on it. Then you can start the backend server with the following command: “$env:NODE\_ENV="production"; npm run dev:server”

Please make sure that if you have MongoDB database named testdb that the document for users is empty before starting the backend server for first time. If the document is not empty, then the code can not initialize an admin account on the database.

1. On the second PowerShell app you need to first open the main project directory on it. Then you can start the frontend React server with the following command: “npm run dev:client”
2. Now you can start using the application. The login details for admin account is

Username: “admin”, password: “admin1234567”.

Features done:

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| **FEATURE** | **POINTS** |
| Basic features | 25 |
| Utilizing React framework | 5 |
| Users can edit their own comments / posts | 4 |
| Last edited timestamp | 2 |
| Only 10 posts per page visible | 2 |
| Users being able to upvote/downvote posts | 3 |
| Admin account (able to edit/delete all posts) | 3 |
| Utilizing MUI for all components (own) | 2 |
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TOTAL POINTS : 46