

Abstract: Coursework-fullstack-blog

This project provides a universal platform designed for content creators, bloggers and those who want to share and discover content in a comfortable and easy-to-use environment. The project is implemented with fast and reliable technologies that will make it possible to quickly and easily share thoughts and ideas.

Purpose:

The purpose of this app is to provide a blogging platform with posts, catering to a broad audience, especially focusing on influencers who wish to share their ideas and insights. However, it's not limited to just influencers, anyone can utilize it to publish their thoughts, stories, or information.

This application provides users with features that allow them to easily create and publish messages that can include both text and images. Also it can be easily edited or deleted.

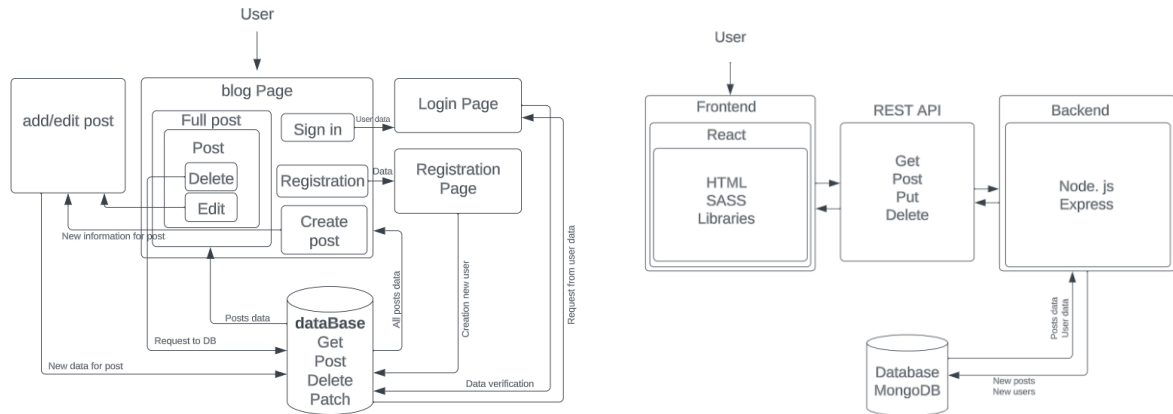
Technical Components:

The main technical components in the application are as follows: Frontend: SASS is used to enhance the styling capabilities and maintain CSS code efficiently. It created all styles in the frontend side and also have a side with MUI blocks. HTML is used to structure the web pages and present the content. React is used to build interactive and responsive user interfaces. Frontend loads data from using the API the server which it then displays on the page.

Backend: Node.js is used to build the server-side application logic and handle incoming requests. Express is used to provide a robust and minimalistic framework for building web applications. MongoDB is used to store and manage blog posts, user profiles, and authorization data in a database.

The project adheres to the Single Page Application (SPA) architectural principle, with React as the frontend technology. I chose a SPA for the app to ensure a seamless user experience and faster load times. SPA architecture allows for smooth transitions between pages, reducing the need for full page reloads and enhancing overall performance. The frontend communicates with the backend through REST APIs, enabling users to request data and perform actions. The choice of a REST API for this blogging platform provides a scalable and flexible solution, allowing seamless communication between the frontend and backend. Its statelessness and simplicity make it conducive to efficient data transfer, enhancing the overall performance and user experience of the application. The backend, powered by Node.js and Express, manages these requests, accessing the MongoDB database for data storage and retrieval. The backend sends responses to the frontend, containing the requested data or status messages. The frontend dynamically updates its interface based on these responses, ensuring a smooth and interactive user experience.

These two top-level charts (functional and technical):



Challenges:

Throughout the project's development, I faced numerous issues, notably unfamiliarity with new technologies. One significant hurdle involved generating UI design skeletons and implementing asynchronous JavaScript code to establish connections with the server. Additionally, managing the MongoDB database posed another complex challenge. This lack of experience complicated tasks, especially concerning user authorization and transmitting data to the server. Overcoming these obstacles required a blend of research, experimentation, and problem-solving skill.

Lessons Learned:

The first and one of the most important thing I realized during this project was choosing the right technologies that work well with each other and have good documentation. I had never worked with databases before and it was problematic for me to create one myself without experience, but choosing Mongo DB became the right choice for my project, its documentation completely solved all my questions.

The second important thing I learned was a thorough understanding of how applications are properly designed in this type of project. I used the REST API which gave me a lot of development capabilities and I understood how to work with it.

Conclusion:

In conclusion, I can tell that the project includes the basic aspects of application design, as well as the ability to work with both front-end and back-end. In the process of creating it, I gained a lot of useful experience and knowledge.