myFlix full-stack project

CASE STUDY

AYA OGIHARA

Project Overview

myFlix is a full-stack web application project adapting MERN (MongoDB, Express, React, and Node.js) stack. The application provides movies information (title, genre, director, description, etc....) and allows users to register, update their profile and add/delete their favourite movie lists.

Objective

The objective of the project is to build both the complete server-side and client-side for the application from scratch. The project will demonstrate my mastery of full-stack JavaScript development, including APIs, databases, business logic, authentication, and more.

Purpose

The purpose of the project is to acquire experience creating a full-stack project.
It was my first time creating a full-stack project.
Creating both sides from scratch gave me a good understanding of technologies and the relation between them.

Duration

The project period was from 4th October 2021 to 5th November 2021.

- Server-side: 4 October to 17 October
- Client-side: 18 October to 5 November

It felt like a long time to complete the project, but I managed to finish it in about a month.

Tools and Skills

The list of tools and skills that I used for the project :

- **Node.js**
- **Express**
- **REST architecture**
- **MongoDB**
- **Mongoose**
- **Postman**
- **React**
- **Parcel**
- **React Redux**
- **React Bootstrap**
- **Heroku**
- **Netlify**
- **Authentication and Authorization**

Server-Side Development

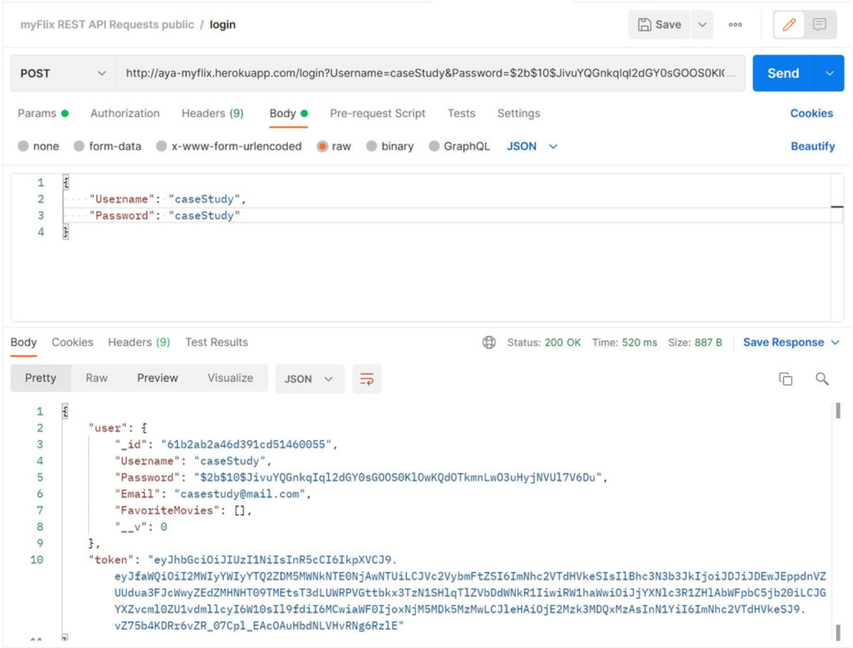
Overview

To complete the server-side of my web application, I used Node.js and Express to create RESTful API which is accessed via commonly used HTTP methods like GET and POST.

The database was built using MongoDB (non-relational database) and hosted on MongoDB Atlas.

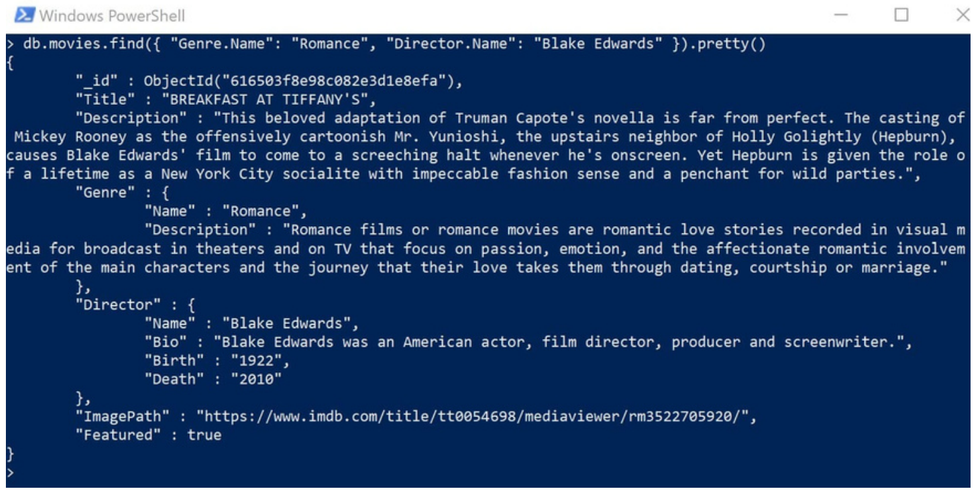
I used Postman to test all API endpoints and for data security reasons, I included user authentication and authorization by using basic HTTP authentication and JWT (token-based) authentication.

The completed server-side application was deployed to Heroku.



Checking login function using Postman

Server-Side Development



Making a query in the database using CLI

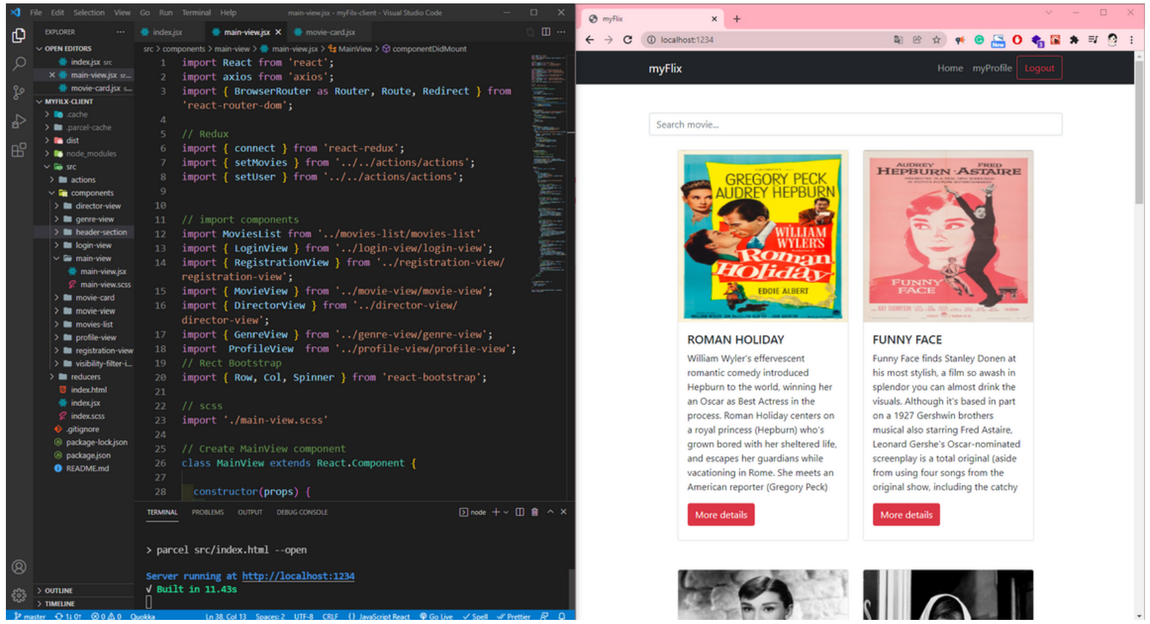
Challenge

The challenging part for the server-side is to become comfortable with using the CLI (command-line interface) but the database creation phase helped me to get used to using it.

Learning

The reason why I was not comfortable using CLI is just the lack of practice and I noticed that practice only makes me more confident.

Client-Side Development



When implementing the client-side, I put the code editor on one side and the coding result on the other side

Overview

The client-side application is a single-page application (SPA) using React and React-Redux.

After the API and the database creation are completed, I start creating the interface which users would use when making requests and receiving responses from the server-side.

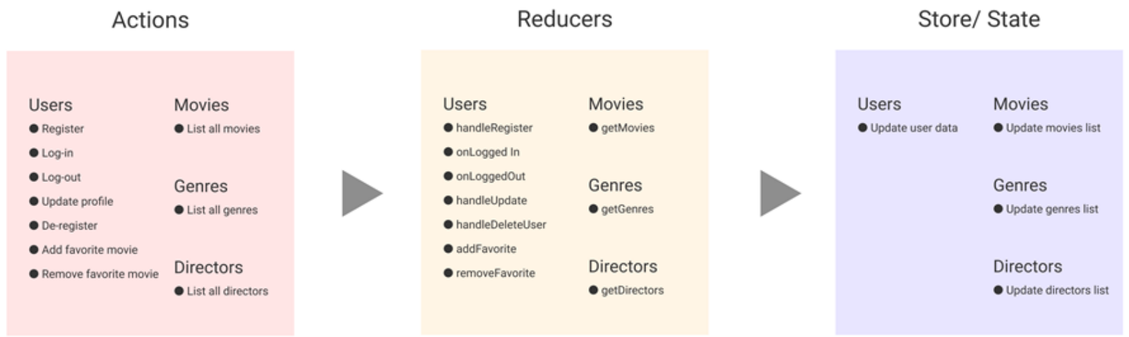
I used React Bootstrap, one of the most popular UI libraries, to achieve a modern responsive appearance.

The application is hosted on Netlify (https://myfilix-aya.netlify.app/)

Client-Side Development

Challenge

The challenge for the client-side was to understand the basics of React-Redux. I spent a lot of time reading articles and watching videos. By drawing an architectural diagram for myFlix, I was able to understand what I needed to do during the implementation phase.



The architectural diagram for myFlix to understand React-Redux

Learning

The challenge made me realize that drawing a diagram is helpful to see the big picture and understand a unidirectional data flow model.

Conclusion

By completing the project, I was able to acquire many new skills and knowledge, including full-stack application creation experience.
I am also proud of myself that I managed to complete the project in about a month.
Please check the following Github Repos below and feel free to reach out via LinkedIn message or contact me through my portfolio site.

myFlix RESTful API Repo
https://github.com/Aya-Ogihara/movie_api

myFlix Client Repo
https://github.com/Aya-Ogihara/myFilx-client