**Github links:**

**Backend:** <https://github.com/zraees/fullstact-bcd-backend>

**Frontend:** <https://github.com/zraees/fullstack-bcd-frontend>

**Deployed links:** (Note: The backend is deployed on a free Azure account. Please inform me if it expires, and I will redeploy it.)

**Backend:** <https://bcdapi.azurewebsites.net/api/users/getuser> (sample endpoint)

**Frontend:** <https://deft-biscuit-82a2a1.netlify.app/>

**Default users to use application:**

|  |  |  |
| --- | --- | --- |
| **Username** | **Password** | **Role** |
| [admin@bcd.com](mailto:admin@bcd.com) | admin123 | Admin |
| [user@bcd.com](mailto:user@bcd.com) | user123 | User |
|  |  |  |

**Please evaluate your own performance. This will be graded by the instructor. Honest self-reflection and a frank appraisal of one’s performance will receive high marks.**

My self-reflection on my performance is quite positive. I believe this because I challenged myself throughout the course and learned a significant amount of new information. However, there are still many topics I planned to explore but was unable to complete due to time constraints, including Node.js, which I intended to practice but couldn't find the time to do so.

Read the instructions and answer each question in turn.  Please be detailed, thoughtful, self-reflective and thorough. 1-sentence answers are probably against the spirit of the exercise.  
  
First, these are the course principles.

* **Intellectual Risk and Exploration:**Reward bold, ambitious failures over timid, tepid successes. Mistakes imply learning.
* Process: Focus on how decisions are made with an eye towards improving the decisions themselves.
* Empathy: Employ empathy in decision-making for better outcomes in general, and better software specifically.
* Principle of Charity:. Assume the most favorable interpretation wherever there is ambiguity.
* Reduce bias: Bias leads to poor decisions. Through transparency and fearless feedback, we will expose and reduce our unconscious biases in order to make better decisions.

Overall, keeping these principles in mind, **how has the class been going for you**?  
I attended 60 to 70 percent of the classes. With some prior knowledge of programming, I was able to revisit my foundational concepts during the sessions. There were challenging moments when I had to make decisions. Initially, I chose to use Node.js as my backend technology. However, due to the need to learn other topics in the course, such as testing frameworks and React for the frontend, I sought permission from my instructor to change my approach. Ultimately, I decided to switch to .NET Core Web API as my backend technology.

**If you could send advice back to yourself at the beginning of the course, what would you tell your less-experienced self? In other words, what do you wish you had known when you started your project?**

If I could send advice back to my less-experienced self at the beginning of the course, I would recommend choosing .NET Core as the backend from the start and developing the overall functionality on either Azure or AWS Cloud. Later, when I began using Azure features, I realized I could have leveraged more capabilities, such as Azure Functions and Service Bus. Currently, I am utilizing Azure SQL, Azure App Service, and Blob Storage, and I am quite satisfied with my decision to use React for the frontend.

**Evaluate your technical growth through this project. What practical steps did you take to address gaps in your technical knowledge or skill? What new skills or knowledge did you acquire? In what areas do you feel you need more development?**

During the course and project development, I learned many new tools and libraries. I became proficient in using Jest and the React Testing Library for frontend unit testing, as well as xUnit and Moq for unit testing in the .NET Core backend. I also gained experience with Azure cloud services, such as App Services and Blob Storage. Additionally, I automated the CI/CD process for the backend project using GitHub Actions, although I manually deployed the frontend app on Netlify.

Moreover, I learned how to handle images in Azure Blob Storage. My experience with React was limited at the start, but I took the opportunity to explore and deepen my understanding throughout the project. Overall, I have acquired a variety of technical skills, but I recognize that there is still much more to learn.

**Describe a technical risk you took in your project. What was the outcome, and what technical or personal insights did you gain from this experience, regardless of its success or failure?**

Yes, I took the risk of choosing React over Angular. Although I have prior experience with Angular, which would have made me feel more comfortable, I decided to embrace the challenge of learning React, one of the most widely used JavaScript libraries. Additionally, using cloud services was another risk for me due to my limited prior experience. However, I viewed this as an opportunity to grow and ultimately gained valuable hands-on experience with cloud technologies.

**Discuss a significant technical decision you made in your project. How did you approach this decision, and how would you assess the effectiveness of your decision-making process? What would you do differently next time?**

In this project, I made two significant technical decisions. The first was to move away from using Node.js as my backend technology. I recognized that continuing with Node.js would involve a steep learning curve, which might have caused me to miss out on other important aspects, such as unit testing for both the frontend and backend, as well as exploring cloud-based solutions.

The project I developed is cloud-enabled, but I wish I had utilized more features or developed the entire backend on the cloud. Unfortunately, due to the learning curve and time constraints, I had to limit myself to the specific services I previously mentioned.

In retrospect, I believe my decision to pivot from Node.js was effective, as it allowed me to focus on essential skills and technologies that I needed to learn. In the future, I would allocate more time for learning and experimenting with cloud services to fully leverage their capabilities.

**How did you incorporate empathy into the design and development of your project, particularly in terms of user experience and team collaboration? How did this consideration affect the project?**

I included empathy by valuing feedback from my classmates during the design phase and promoting open communication within the team whenever possible. This helped improve user experience and teamwork, leading to a more effective project that met user needs and strengthened team dynamics.

**Reflect on your project as a whole. What technical aspects were most successful, and which ones would you improve upon in future projects? How could course content or structure better support these technical endeavors?**

Reflecting on my project, I successfully implemented most features, although some lacked detail. For example, I included a login function but did not track every user action or login activity. I also aimed to create a detailed recommendation system based on user activity and reviews; while I completed this feature, it only utilized a basic algorithm. The course content and weekly progress updates were valuable for monitoring my development.

**What aspects of the course or teaching methods do you think could be improved? That is, how can I make this experience better?**

In my view, introducing group work with 3 to 4 classmates would enhance the course. Groups should be balanced, with one member skilled in programming and others with basic knowledge. This way, less experienced students can gain hands-on experience from their more knowledgeable peers.

If you were to assign yourself a grade, what would it be?  Please use the Fibonacci Scale.  That is to say, give your score as **one of the following numbers**: 0, 1, 2, 3, 5, 8, or 13. 13 is the highest score possible, 8 is just over half of highest, 1 corresponds to *almost, but better than, nothing.*

I would assign myself a grade of 13, not solely based on the project's scope or the number of features compared to others, but because of the effort I put in and my commitment to learning many new things throughout the course.