

Southern New Hampshire University

CS 470 Full Stack Development II

Final Reflection

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Prior to taking this course my working knowledge of both ends of development for applications was mediocre at best. After taking this course I was able to gain a much clearer insight into how to develop an application from front to back. The coursework during this term truly helped me to grow as a professional in many ways. I had the opportunity to utilize tools such as Docker and Amazon Web Services (AWS). Along the way I also had the chance to learn about containerization and how to convert applications into a serverless architecture inside of AWS. However, one of the most valuable tools I got to sharpen was time management. This was a very demanding class but also very rewarding. As I continue to progress forward towards my future career this skillset will benefit me in obtaining full stack engineer, frontend engineer or cloud software engineer positions.

Amazon Web Services offer microservices as well as serverless tools which can make any application much more efficient. One example of this is found inside of AWS Lambda. I learned how to not only set policy permissions and implement them but also utilize step functions which can handle errors in a more efficient and easier manner. I also learned how easily applications can scale with the use of DynamoDB inside of AWS.

With all that I had the chance to learn one thing still sticks out the most to me that I feel like is the driving force behind their success. You only pay for what you need. This service is fairly cut and dry in terms of you pay for what you are wanting as opposed to paying a set price and receiving only a portion of the tools you would need to convert your application to a serverless architecture. Another added benefit they offer is a pricing calculator for potential users to input what they need and to see their potential costs.

When considering expansion plans it is beneficial to stop and consider the pros and cons before we move forward. There should be much research conducted to make an educated and informed decision. I would start by conducting studies to grasp an understanding of market share dynamics and also cost-to-benefit analysis. The biggest and most obvious con to any expansion would be capital expenditure which is followed closely by the time it would take to build out the entire infrastructure. The pros of expansion, on the other hand, would be higher revenue generated, better odds of sustainable success with growth. Then we look at the serverless architecture and how elasticity can play its part in expansion. Elasticity allows the resource to be moved up or down as needed. It acts like elastic and allows us to utilize what we would need. This is where the pay-for-service method comes into play. You only pay for what you need. When we break this down we see many companies that offer the entirety of their services for one set price. AWS takes this and breaks the mold with allowing you to calculate exactly what you would need to utilize and then charging you accordingly. The combination of these things allows any business the necessary tools to achieve sustainable growth at a reasonable cost.