CS 470 Final Reflection

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As I reflect on the CS-470 course, I have come to realize how much it has contributed to my journey as a software developer. Throughout this course I have focused on creating a web application using AWS microservices, which has given me a strong foundation that I can build upon in the future. This course has taught me many important skills like designing APIs and using AWS microservices. These skills are highly sought after by employers searching through resumes for entry and senior level candidates. I was also able to enhance my ability to quickly learn and adapt to new technologies, which was very useful in completing the two projects and proving to myself that I am ready for a career in software development.

I believe that the skills and knowledge I have gained during this course have prepared me for an entry-level position in the field such as cloud-based app development or backend work. I can see myself excelling in roles such as a junior cloud developer or backend developer in the next couple of years. The hands-on experience I have gained from this course has also been instrumental in preparing me for these roles. As I look to my future, I plan on enhancing my web application and refining my skills in the process. One way that I plan on doing this is by using microservices and serverless architecture to improve the application's efficiency and scalability. For example, I can adjust resources to meet user traffic demands which will ensure a smooth operation during peak times. I will also implement accurate error handling within the application to ensure that it functions smoothly for all its users and that it minimizes the potential for crashes.

Another important aspect to consider is the management of the costs for the application. I plan on continuing to use serverless options such as AWS Lambda because of their predictable cost structure where you only pay for actual usage such as when the application's code is running and not when it is idle. However, I also know that things might get more complex and affect the overall costs as the application grows. There are also containers that I could use which offer more flexibility but would be harder to predict the overall costs because of the continuous resource use. With all of this in mind I need to consider two very important factors, the application’s ability to scale up, known as its elasticity and how I payment or cost structure of the services. The first factor (elasticity) is like how a rubber band stretches based on its load. Elasticity will enable me to adjust the application's capacity according to the changing user traffic which works to ensure optimal performance. The other factor is the pay-as-you-go model which is like buying a snack (pay for what is being consumed) instead of a buffet (pay for more than what may be consumed). This helps me manage the costs more efficiently by paying for only the services that are used. In conclusion, CS-470 has not only given me the essential skills I need to succeed in the tech industry, but it has also shaped how I approach problem solving all together. I am very excited to apply all this new knowledge in my future career and make my contributions to the tech industry.