

## CS 470 Final Reflection

**YouTube Video:** [https://www.youtube.com/watch?v=Gz6Mzg\\_WDuc](https://www.youtube.com/watch?v=Gz6Mzg_WDuc)

- **Experiences and Strengths:** Explain how this course will help you in reaching your professional goals.
- What skills have you learned, developed, or mastered in this course to help you become a more marketable candidate in your career field?

In this course I was able to learn and apply key Cloud development concepts such as containerization, serverless architecture with AWS, and elasticity. Understanding all of these concepts and skills will enable me to expand my own future career opportunities in the realm of software development. I also became much more familiar with building and maintaining REST APIs through AWS services which is essential for building and deploying scalable web applications.

- Describe your strengths as a software developer.

As a software developer I am always eager to learn and apply new skills and technologies that help me stay ahead of the curve and remain marketable. I am also able to understand and identify software requirements while providing creative solutions to problems. I also consider myself a team player and remain clear in my communication style and presentation to other developers.

- Identify the types of roles you are prepared to assume in a new job.

After completing this course, I feel confident in my ability to begin my journey as a Full Stack software developer capable of managing a wide variety of tasks and challenges that come my way. I hope to follow the best practices I have learned from this course and work towards migrating more applications and services to AWS and other cloud providers.

- **Planning for Growth:** Synthesize the knowledge you have gathered about cloud services.

- Identify various ways that microservices or serverless may be used to produce efficiencies of management and scale in your web application in the future.

- How would you handle scale and error handling?

I would start the process of scaling my web application by first configuring and applying AWS auto scaling through the CloudWatch service. With AWS auto scaling my application would be able to allocate more resources depending on the amount of traffic and adjust the read capacity for my DynamoDB database. I would also mitigate error handling by building and maintain my own AWS step functions which could automate and handle any issues with my other services or Lambda functions.

- How would you predict the cost?

I would begin my first navigating the AWS cost explorer to help me gauge the average cost and usage for my web application. From the cost explorer I would also be able to view different savings plans that fit into my budget and further decrease the billing amount from AWS related services.

- What is more cost predictable, containers or serverless?

While serverless computing offers significant cost savings by only paying for the amount of resources that you use, I believe that containers would offer a much more predictable cost analysis as the rate for managing these containers will remain fairly consistent. A company that is willing to embrace these variations each month depending on demand and resource activity however would likely prefer a serverless approach.

- Explain several pros and cons that would be deciding factors in plans for expansion.

One deciding factor in plans for expansion would be the amount of current interest in the web application. Another factor would be the required cost to transition or migrate the existing application to a new serverless approach. This larger upfront cost of migrating to cloud architecture could also result in long-term cost savings during the maintenance phase of the application. Security would also be another consideration for the company as they would need to ensure their application would still remain secure with other cloud providers.

- What roles do elasticity and pay-for-service play in decision making for planned future growth?

With elasticity organizations are much better prepared to handle any anticipated future growth as resources are capable of being increased or adjusted based on the demand. This also ties into the pay-for-service model used by AWS where all of their services are capable of automatically adjusting to scale from the beginning. This form of payment also encourages companies to regularly test their capacity in the event of rapid growth while still retaining the same level of stability.