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## **CS 470 Final Reflection**

**Presentation Link:** <https://www.youtube.com/watch?v=9gMQA3b74IM>

Reflecting on my journey through this course, I realize I'm much more knowledgeable about modern IT infrastructure, particularly in cloud-based technologies than I was before this course started. The skills I've learned, like using Docker for containerization and deploying serverless applications with AWS Lambda, have made me a stronger candidate in today's job market. This course has given me the tools to confidently step into roles that involve cloud infrastructure, DevOps, or full stack development.

One of my strengths is adapting quickly to new technologies. Throughout the course, I tackled complex tasks like successfully migrating a full stack application to a serverless architecture on AWS. This migration was a significant learning experience, as it involved rethinking how the application components interact, leveraging services like API Gateway and Lambda for a more scalable and cost-effective solution. These experiences have sharpened my problem-solving skills and taught me how to approach challenges systematically.

Looking to the future, planning for the growth of a web application means ensuring it can handle increased traffic, manage errors, and keep costs predictable. I've learned that microservices and serverless architectures are key to this. Microservices allow each part of an application to scale independently, which improves performance and makes error handling easier. Serverless

architectures, like AWS Lambda, offer a pay-per-use model, which can be more cost-effective, especially for applications with fluctuating workloads.

When planning for growth, it's important to balance elasticity and cost. Elasticity allows the application to scale based on demand, ensuring efficient resource use, but it also means costs can vary. Serverless options automatically handle scaling, but costs can increase quickly if not managed well. Containers give more control over scaling but require more management effort.

This course has equipped me to build robust cloud-native applications while also thinking strategically about their future growth and scalability. These insights will be invaluable as I move forward in my career, helping me design and implement solutions that are technically sound and sustainable in the long term.