## **CS 470 Final Reflection**

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Presentation Link: https://youtu.be/uib6fc2ayGc

## **Experiences and Strengths**

In CS 470, I learned to containerize applications using Docker and Docker Compose, deploy a MEAN stack to the cloud, and integrate AWS services such as Lambda, API Gateway, and DynamoDB. These experiences strengthened my troubleshooting, adaptability, and problem-solving abilities. I now feel prepared for roles like full-stack developer, cloud application developer, or entry-level DevOps engineer, with a stronger foundation in cloud-based development and deployment.

## **Planning for Growth**

Future growth depends on scalability and cost planning. Microservices and serverless approaches allow efficient scaling by letting individual parts of the system expand independently. AWS tools like CloudWatch and DLQs improve reliability through monitoring and error handling. Containers provide predictable costs, while serverless is cost-effective for lower traffic but less predictable with spikes. A hybrid approach using both ensures flexibility, while elasticity and pay-for-service make scaling practical without overcommitting resources. If traffic were to increase significantly, containers could provide stability for core services, while Lambda could manage burst workloads. This balance not only supports growth but also keeps costs aligned with actual usage. These lessons showed me how to think beyond writing code and consider the long-term health of an application.

## Conclusion

CS 470 helped me grow as a developer by giving me practical experience with cloud deployment, scalability, and cost management. I leave this course with stronger technical skills and the ability to think strategically about future growth, preparing me to take on professional software development challenges with confidence.