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CS 470 Final Reflection

https://www.youtube.com/watch?v=FoSFPxvgYNQ

## Final Reflection

This course has helped me to understand more advanced topics like cloud computing and what a migration into the cloud means for a traditional application. More and more companies are moving or trying to move into the cloud, and this using the knowledge I gained by deploying such an application will make me a better candidate for a wider range of jobs. This includes the use of different databases, serverless functions, and the ability to understand what each service in AWS does or needs to do.

My strengths as a developer are breaking down problems in to easier, more manageable chunks that I can work on individually. This is a good attribute to have as a developer and I hope to use this to my advantage in upcoming careers. I am prepared to go into a new environment and analyze the codebase or ask questions that are pertinent to what application we are developing.

Microservices and containers are a different way to think about software development. Isolating each service allows us to troubleshoot or rebuild each container as needed. Any lost time to a customer could cause harm so keeping this to a minimum will benefit both parties. Handling errors could also be easy as stopping a container and restarting a known good one could be an option. Scale can also be handled by using multiple containers and load balancing or using a server with more performance and moving over each container. Moving from a traditional environment to containers will also help with performance since containers by themselves are just more performant to begin with.

Predicting cost in a container less environment would be based on what server we were using. We could use cloud virtual machines to host which could cut down on costs or use a physical server connected to the internet. Using a serverless environment, our costs would be more predictable. We would only pay for the runtime of our functions, or the space used in S3. This could be calculated based on how much our functions run and how much data we are using per month.

The pros of growth would be a growing userbase and customers finding value in our service. With additional growth, there would be, hopefully, more profit and expansion of features. This in turn would lead to more spent of infrastructure and development time which could be a con. In a perfect would, the pros of growth would outweigh the cons and we could continue indefinitely. Elasticity and pay-for-service allow us to try and combat the cons of growth. Instead of large upfront costs to increase capacity, we would be able to pay more for each transaction or function run. This would allow us to scale more gently while also keeping costs manageable.