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CS 470 Final Reflection
https://youtu.be/vygthza6ses

Experiences and Strengths: Explain how this course will help you in reaching your professional goals.

Before taking this course, I had not had any worthwhile experience with any AWS systems. Being able to try out some of the commonly used services to deploy an application to the web was eye opening. I knew that AWS was a powerful tool, but I wasn't aware of how applications were being developed and deployed. This exposure to the AWS systems is something that will certainly be of use for me in my career. I also had not used docker other than when I followed instructions for some project of mine a while back. This experience with containers has also been useful. I currently work as a junior network engineer, and I definitely see myself continuing to work in the infrastructure/ IT space. This course was a great first exposure to some of the things I hear my coworkers mention like an S3 bucket. As a software developer, I think that my strengths come from my ability to come up with unique ways to achieve a certain goal. I tend to rely on hopping right in and creating things as needed. This is great, but as I have progressed through my courses, I have learned to take more organized approach to development which involves more planning and consideration. In a new job, I believe I would be able to work with python, C++, and Java code. I would also be able to develop a full stack application and deploy it using containers or AWS. This all ties really well with my current several years of desktop IT and recent network IT experience.

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

First, cloud services make it very easy to deploy an application to the web. They do this by offering instant access to whatever resources are required to run your application. The serverless model removes the need to set up or maintain a physical server. The cloud model is elastic, meaning that as the need for resources grows, those resources are available to the application. You use the resources you need, and you pay for only the resources you use. We could model the use for the average user and calculate what the average cost would be for our application to be made available in a certain period of time. The physical server model, where we set up our own servers can be more time consuming and labor intensive but is more predictable in terms of cost because you know the hardware and power use. We generally do not know how much a cloud application will be used at any given time. In planning for expansion, current infrastructure must be considered, are applications currently hosted on site or in the cloud? How much more use needs to be accommodated? What are the cost limitations of the expansion? These factors are important to consider when deciding how to proceed with the expansion. Cloud services allow for easy expansion and can minimize the time and cost of labor involved. Hosted applications could require hardware upgrades and can be more time intensive, but cost can be saved if infrastructure is in place and only upgrades to the current system are needed to accommodate the expansion. This is more predictable in terms of cost.