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CS 470 Final Reflection

https://youtu.be/5wJt_JpNqJo

Experiences and Strengths:

- What skills have you learned, developed, or mastered in this course to help you become a more marketable candidate in your career field?
 - Prior to this course, I had experience programming and in creating the pieces of an application, but not with cloud computing. This allowed me to interact with and explore AWS and some of its tools, such as Lambda and DynamoDB. I understand that to be truly competitive with cloud computing I will need to pursue a certification or two with either AWS or Azure, to at least better show a level of understanding. At the very least I have a better understanding of the pieces and where to start focusing my future learning efforts.
- Describe your strengths as a software developer.
 - I have found that my experience with troubleshooting has translated to a greater ability to both debug and develop programs. Being detailed in my investigating encourages the seeking a number of resources and paths to find solutions to complex problems. Overall I believe I have solid technological problem solving skills that can be applied to the problems of fixing and putting together the pieces of software projects.
- Identify the types of roles you are prepared to assume in a new job.
 - As I move forward, I plan to utilize my experience with troubleshooting and administrating networks, alongside the certifications I already have, to move to up to the field of cloud administration. I still need to decide upon a specific platform to focus more on, such as Azure or AWS. Some of these future positions that will come with the need to pursue more specific certifications might include Cloud Administrator, AWS SysOps Administrator, Cloud Security Specialist, and so on.

Planning for Growth:

- 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? - Utilize performance monitoring to identify any potential bottlenecks that could affect future scaling. Also ensure that the program at the very least has an error reporting system set up, if not an actual workaround extension that can perform basic reset steps.
 - How would you predict the cost? – The key is identifying current cost, to include trending usage at its highest and lowest. Then one can multiply those barrier values up to the intended size and identify which pay-per-use service best fits the needs.

- What is more cost predictable, containers or serverless? – This depends on any existing usage trends. If the application has major shifts in how often it is used, such as in testing and new development, then serverless is the more cost-effective solution. If it is an established application with a steady user-base, then it will more efficient to utilize containers.
- Explain several pros and cons that would be deciding factors in plans for expansion.
 - Similar to the storage solution choice, how the application is deployed on the market, whether it's rolled out in stages to test the user base and performance, or if it comes out with a lot of backing ready, will determine the best storage choice. Another factor that needs to be examined is security. The application right now has minimal to no security. If expanding, there will need to be safeguards put in place to prevent DDoS attacks, as well as instituting some kind of user registration system, ensuring that data is kept secure as well.
- What roles do elasticity and pay-for-service play in decision making for planned future growth?
 - Different cloud providers offer differing service plans with varying costs depending on the expected amount of dynamic usage that occurs. Having a proper plan and analysis as to the expected usage will affect what plan will be the most cost effective and the most efficient for the program itself.