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CS 470 Final Reflection

https://www.youtube.com/watch?v=bTg1eBhgZdU

- **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?
        - This course has taught me about the benefits of utilizing a cloud-based platform for applications, as well as how to implement them. With the rise of cloud systems in recent years, this is certainly a marketable skill to have.
    - Describe your strengths as a software developer.
        - As a software developer, I feel I am very thorough in ensuring my programs work correctly. I believe that I create software that is easily readable and maintainable by utilizing best practices and thorough documentation.
    - Identify the types of roles you are prepared to assume in a new job.
        - I am actually starting a new job as a developer tomorrow! This role involves integrating various systems in an industrial setting, so the flexibility to learn about these various systems is a must.
- **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. Consider the following:
        - How would you handle scale and error handling?
        - How would you predict the cost?
        - What is more cost predictable, containers or serverless?
            - Scaling is taken care of automatically, so we don't need to purchase and setup new servers. By having a system composed of various services, an error in one can be isolated and not impact the system at large as greatly. Platforms like Amazon Web Services provide tools that allow us to easily forecast our usage. Assuming the containers are run on an organization's servers, the cost for them is more predictable than a serverless platform. The cost to run a server is pretty constant, regardless of utilization. That said, this setup does not scale as well as serverless.
    - Explain several pros and cons that would be deciding factors in plans for expansion.

        - Pros
            - Scales much more easily
            - Pay-for-use
            - Less to maintain, can focus more on the software
        - Cons
            - Less control over environment
            - Might not be as secure as desired for sensitive information
            - Locked into a vendor
    - What roles do elasticity and pay-for-service play in decision making for planned future growth?
        - The elasticity of cloud-based systems allows for resources to be dynamically allocated to meet demand. This would allow us to meet increasing demand from future growth and a pay-for-use model means that we don't have wasted capacity. We no longer need to attempt to forecast our demand and setup hardware accordingly, running the risk of having too much or too little capacity.