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CS 470 Full Stack Development II

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CS 470 Final Reflection

Video Link: https://youtu.be/xTrNdbqgNgU

- **Experiences and Strengths:** Explain how this course will help you in reaching your professional goals.
    - What skills have you learned, developed, or mastered in this course to help you become a more marketable candidate in your career field?
        - Some skills that I have learned throughout this course include the ability to create a static web application using a containerized approach with Docker Compose. This knowledge was then pushed to AWS using an S3 bucket, the Lambda API, and DynamoDB to create a hosted web application. I believe understanding these services offered by Amazon could help increase my knowledge of cloud development and deployment to help give a better edge in my career field.
    - Describe your strengths as a software developer.

        - As a software developer I believe my strengths include being a problem solver as whenever I am presented with a problem, I always try to find a solution to the problem, as well as being patient. I have found that being patient can help keep you in a good mind set to continue learning instead of over-burdening yourself and losing interest in a new topic. By staying patient, I can relax and learn at my own pace.
    - Identify the types of roles you are prepared to assume in a new job.
        - In a new job I am prepared to assume a role in smaller tasks. No matter what role I end up getting whether it be a backend developer, frontend developer, or game developer as that is the career field I would like to go, I understand that the role I will get will not be one that includes major system/application code but rather smaller projects that will still have an impact and a need, just not as large of one.
- **Planning for Growth:** Synthesize the knowledge you have gathered about cloud services.
    - Identify various ways that microservices or serverless may be used to produce efficiencies of management and scale in your web application in the future.
        - To handle scaling and error handling in a web application I believe using some sort of logging system can help create an organized method of understanding the growth of the application, the data within, and the services that produce the most errors. I believe a logging system can help keep an eye on the application to help me know when/how a service needs

to be scaled and what service or services need changes due to errors being produced. Predicting the cost upfront can be hard as for AWS you pay for what you use, so if you use more resources, you pay more money. However once up and running, growth metrics can be taken every day, every week, and every month to determine how application usage is growing, and prediction can be made for what it will be like in the future to determine a realistic cost for services. The most cost-predictable method for a web application would be a container versus a serverless setup as with serverless as mentioned you pay for what you use whereas a container host you usually pay per hour.

- Explain several pros and cons that would be deciding factors in plans for expansion.
    - When looking to expand, some pros to consider could be to reach more customers, to be able to generate new sources of income, and the possibility to create more partnerships which could all have another impact on increased revenue. However, the cons of such a task are that it is new territory and there could be market risks of spending money and time on expansion with no noticeable gain. Another con could be the increased cost of services or the cost in general for expansion as the budget may be tight.

- What roles do elasticity and pay-for-service play in decision making for planned future growth?
    - When planning for future growth elasticity can ensure that the resources needed for growth are scaled to meet demand of new services ensuring that there are no issues with connection and usage within the application. Pay-for-service allows for the same scaling of pay when it comes to an increase in resource usage that way there is no worrying about overpaying for more services, resources, etc. and that you are only paying for what you need when growing.