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CS 470 Final Reflection

Presentation Link: https://youtu.be/j7ZSH70sZ2Y

- **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?

    For this course it added on to my experience with Full stack development, in other words, gained more experience in the frontend and backend side of development, and putting it all together. Now adding the experience in transitioning a full stack application from a local project to the serverless cloud. On top of the continued refinement of working with code and my research, patience and grit skills to be able to finish through all the bugs or errors I encountered.

  - Describe your strengths as a software developer.

    As a software developer, I take pride in my work ethic, research skills, critical thinking, malleable learning attitude, and team development attitude. I have been working diligently to see software development as a team/community instead of just individual work. Especially for a company and meeting company and client needs, being team driven is a beneficial strength to have.

  - Identify the types of roles you are prepared to assume in a new job.

Personally, I am prepared to assume any entry level jobs because I have not had any prior experience within this type of work and material other than through this degree program. I know I have a lot more experience and knowledge to go through/understand to be prepared for higher types of job roles and responsibilities. It could be within software development, assistants, and possible business side of things.

- **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?

      With AWS services, it would be easier and more manageable since AWS handles the scaling for you. If the growth of storage or services are needed, AWS has that for you ready to go, and the cost is determined by how much you use of it with their Pay-for-use Model.

      With scaling also comes more data to handle, and with more data comes with a higher possibility of errors. To handle errors, ensuring by sticking to the good practices of programming, staying diligent with programs, and regular testing and multiple layers of testing would help handle errors. In addition, with AWS's template style set up, errors are easily managed and caught.

    - How would you predict the cost?

Cost is always going to be unpredictable because of the uncertainty of how the project will do or grow. However, analysis of the needs of the project in the first stage and then updating it from there as the process goes on, would be a good way to predict cost. AWS has features like CloudTrail that tracks the project data and creates an analytical report for you. That way, analysis can be done and be easier to predict the cost.

- What is more cost predictable, containers or serverless?

  I would say that serverless would be more cost predictable since with the analysis of the trend of how the project is doing and its future needs, it is easier to see the cost with the predicted data/services usage with the Pay-for-use Model that serverless utilizes.

o Explain several pros and cons that would be deciding factors in plans for expansion.

Several factors are in play when deciding in plans for expansion, a few of which are cost, manageability, and security. With a serverless cloud, like AWS, cost is great with the Pay-for-use Model and the efficiency it gives with expansion due to no need of physical servers. Management is handled by AWS and with no need to manage physical servers, and lastly, AWS has a bunch of security features that protect the expansion of data.

Some cons would be the constriction of data types and complexity of data that can be stored, security is more complex and secure with local than serverless, and debugging is more challenging with serverless.

o What roles do elasticity and pay-for-service play in decision making for planned future growth?

As mentioned above, some factors in planning for expansion are cost and management. With the use of serverless, with its elasticity and the Pay-for-use Mode, expansion is made easier. Serverless cloud, like AWS, expands with you and handles the growth management of your needs and charges you with only what you use in that expansion.