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CS 470 Project Reflection

Video Link: https://youtu.be/aoVhsYV5njo

What skills have you learned, developed, or mastered in this course to help you become a more marketable candidate in your career field?

Before taking this course, I was not very familiar with the Docker or even the AWS services. This course provided the foundation I needed to begin my journey to becoming a full stack developer. I believe that I have become familiar with Docker and what it is meant to do. I learned that it is an excellent tool to test an application before it is deployed. I also learned about Docker compose that ties multiple services together and allows multiple containers to run at the same time. I have also learned how to upload a full stack application onto the AWS S3 service. I then was able to create lambda functions, create a database with DynamoDB, creating method responses and integration response and creating the endpoints that communicate with the database. I have learned these skills, and I feel like I have a solid foundation that can help me pursue my career.

Describe your strengths as a software developer.

I think that I can learn new information quickly and once I practice a new subject a couple of times that information is stuck in my head. Another strength that I have is that I am persistent, and I do not give up easily when learning new things. I also think that I work well in a team, have good communication skills, and can problem solve. During this course when I encountered issues with the code and I was able to work through the issues and identify what I was doing wrong.

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

The roles that I feel like I am prepared to fulfill are working as a front-end developer or as a full-stack developer. I think that I am closer to front end developer at this point, but I want to make the push to be a full stack developer.

Identify various ways that microservices or serverless may be used to produce efficiencies of management and scale in your web application in the future.

Using microservices allows for the breaking down of tasks within an application. For example, within the full stack application we worked on for this course, we had one service for the database and had many lambda functions handling the communication with the database. It is easier to work on smaller fragments than must work on a bigger project. Having smaller portions makes the process of updating them more efficient.

How would you handle scale and error handling?

Within the lambda functions there are scripts that have the error codes built in. If anything goes wrong the console will output an error code along with where the issues is occurring. With scaling AWS has a feature that auto scales an application whenever the demand exceeds the allocated resources.

How would you predict the cost?

Within AWS there is a feature that allows the user to predict the cost of usage of an application. This will give the user an idea of what to expect during deployment.

What is more cost predictable, containers or serverless?

The most predictable would be a container because the resources used for a container are preset so there is no way to scale for more resources without downtime.

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

One con would be that if the storge is physical then there must be large expenses made to accommodate for the expansion of the storage. This would be a pro for serverless since the storage can be scaled to be larger to anticipate the expansion. The company would have t consider whether it is wise to invest in more infrastructure when they will probably have to do it again in the future.

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

Being able to be elastic and grow with the demand can make a decision easier. They do not have plan to make upgrades to a physical infrastructure. They can just plan to pay for the services they are currently using and plan for the growth. If they were to spend money to expand the physical infrastructure and then they end up not needing they could lose money. Instead they can spend more money when they need to expand.