CS 470 Final Reflection:

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This Full Stack Development course expanded my understanding of cloud development and introduced me to multiple AWS services. These services such as DynamoDB, Lambda, API Gateway, IAM, etc. can be used interchangeably to deploy a serverless application. These skills are crucial to understanding how cloud-based applications run and their benefits in comparison to traditional models. Interacting with AWS services also provides insight into how to utilize those tools in preparation for personal and professional use. My strengths as a software developer include perseverance and communication. When in the face of an error I will put in the effort needed to try and find the resolution online or through trial and error. If a solution is difficult to find, I will communicate with my peers to see if anyone else has faced a similar situation. In a new job, the role I would be most prepared for is a developer role. In DevOps, I would be able to play with AWS services and write and create tools to use for applications.

Serverless applications provide multiple benefits including auto-scaling and a pay-as-you-go model. On serverless platforms, the scaling is based on incoming traffic. Error handling can be configured but built-in error handling functions should be considered. Serverless pay-as-you-go models ensure you pay only for what you use. It is based on the number of executions performed. This cost can be monitored and predicted based on platform usage. Unlike serverless platforms, containers might require you to pay for a reserved amount of capacity. Since the reserved amount can be easily monitored it is easier to predict the cost of containers.

Before expansion, there are multiple factors to consider. This includes the cost, complexity, and downtime. It can be cost-intensive, require new skills to manage the cloud

infrastructure, and service can be disrupted. The pay-as-you-go model helps with the cost of scaling as it is based on actual usage. Elasticity refers to the automatic scaling involved in an expansion. Resources are accommodated where needed without any loss.