Philip Trinh SNHU/CS-470 12/15/2023

## **CS 470 Final Reflection**

https://youtu.be/Ty8l5Ygp4iY

## How will this course help you in reaching your professional goals?

Personally to me, this course taught me a lot about AWS. Creating S3 bucket, Lambda functions, methods, data storage, and front-end/back-end integration has significantly contributed to my professional growth. I've gained valuable insights and practical experience that align with my career goals. Understanding AWS services enhances my capabilities in cloud computing, a skill highly sought after in today's technology landscape. Being able to interact and deploy my front-end/back-end into the cloud gives me easier access to maintenance my website remotely and scale it as much as I need to.

### Describe your strengths as a software developer.

My strength as a software developer is the ability to constantly make better versions of my software, update and implement new methods as needed. I like to work on new iterations to make my program as strong as possible. Also, I learned from my mistake and quickly adjusted and tested all my program for functionality. This is in my opinion a tremendous strength to have as a software developer, the ability to keep on working and solve problems to constantly upgrade and adapt.

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

With the skills acquired, I am prepared to take on roles such as Full Stack Developer, Cloud Solutions Engineer, Web Application Developer.

## How would you handle scale and error handling?

I would handle scale and error handling by enabling scalability by breaking down the application into smaller, independently deployable units. Serverless architecture, on the other hand, automatically handles scaling based on demand. Both approaches contribute to efficient scale and enhanced error handling.

#### How would you predict the cost?

My prediction for cost would be lower by using serverless computing which allows for a more predictable cost model as it charges based on actual usage rather than pre-allocated resources and used as I need and only when I needed it.

What is more cost predictable, containers or serverless?

Serverless is more cost predictable because you charge for actual usage.

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

Pros of Microservices include scalability which involves independent scaling of components. Technology Diversity which chooses the best technology for each microservice. Cons of Microservices managing multiple services can be complex. The Inter-service communication requires careful design and coordinating deployments can be challenging. On the other hand, pros of Serverless include cost efficient, automatic scaling. The cons include cold start latency, limited execution time.

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

The elasticity is the ability to scale resources based on demand is crucial for accommodating growth without over-provisioning. Both microservices and serverless architectures provide elasticity, allowing the system to handle varying workloads efficiently. Meanwhile Pay-for-Service aligns with cost efficiency. Serverless, with its pay-per-execution model, is particularly attractive for managing costs in line with actual usage. However, the trade-off involves careful consideration of the specific service's pricing structure.