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CS 470 Final Reflection

YouTube Video URL: *https://www.youtube.com/watch?v=9eSJsby1Sg8&ab_channel=AmitJ*

Learning Full Stack Development II course has introduced me to new topics and added more knowledge to the topics that I was familiar with. It was great learning about containerization, Docker Compose, Database, Storage etc. The course has helped me as I learned to create containers to host the front end and back end of an application, learned more about the cloud development through Amazon Web Services and its resources like S3 buckets, DynamoDB database, Lambda, API Gateway, cloud security etc. Getting introduced to AWS and its inner details will be my one of the important learning curves of this course. These learnings and skills will be very useful in making me more knowledgeable and marketable candidate in the field of computer science and information technology.

As a software developer, one of my strengths will be problem solving capability. Ability to dissect the problem, being curious to ask questions even if everything looks straight forward, work as a team player, desire to learn more and not stick to comfort zone by challenging myself are some of the other strengths as a software developer.

I am prepared for full stack developer role in which I can create the front end and back end of the application and make it user intuitive and functional. In developing that application, my roles will also include working with team members, communicating with them, learning from and teaching team members, help the QA team through unit testing etc.

Cloud computing allows users to access the services over the internet. Microservices or serverless provides resources to manage and scale applications. In this method, applications are structures as services and run in different servers. The granular nature of the architectures, it is easier to manage the code and development works can be done parallelly improving efficiency. Serverless workflow with conditional logic are created to handle scale and error handling. To predict cost, we would need to analyze different companies and their services, check their subscriptions, requirements for the company, ease of implementation and maintenance, and make cost assumptions for the infrastructures or services that the company might need. There are some tools that can be used to help predict the cost. I believe serverless is cost predictable as it is pay per use basis and the company will most likely know when it is going to be used or on what circumstances it is going to be used, so cost predictions can be made whereas containers run constantly and can be charged even if there is no usage.

The pros that will be deciding factor in expansions will include efficiency, productivity, scalability, better management, cost savings, better back up and recovery strategy, security, flexibility etc. With serverless, it is pay per usage, hence cost effective. It can be scaled up and down as per the company needs. Everything will be in cloud, so in event of disaster, it will support proper recovery due to timely backup. The security aspect is also really good. The cons include the time and expenses in doing the transition. The other cons include the ability to control own resources and not to depend upon third party.

Every organization thinks cost effectiveness of any products or services they utilize. Pay-for-service model will suit any organization, as the organization is paying only for the services utilized and do not have to worry about incurring charges just because they are contracted. On

the other hand, the services should also be elastic, the ability to scale up and down as necessary. The needs and requirements may increase or decrease depending upon various factors. If there is a way that those services can be scaled and pay-for-service only, these factors will have an important and, in some case, decisive roles in planned future growth.