Ryan St George

CS470 Full Stack Development II

12/12/2023

CS470 Final Reflection

Link to Presentation: https://youtu.be/xU4gd2lSZZ0

This course has been my favorite course so far in my time at college. Full Stack Development II with the focus on cloud computing is something I really enjoy. From API and Lambda integration, to overall just utilizing cloud based services. I also have a much better understanding of roles and policies and how they can benefit the environment for proper security best practices.

Some strengths I have as a software developer are problem solving, ability to change, being able to look at the bigger picture, and overall paying attention to minute details. For instance I can take a problem, let's say we want to migrate something to the cloud, we need to be able to break that down into what exactly, how we're going to do it, the security involved, and overall make sure we leave no vulnerabilities in doing this. And then at a moment's notice change something and be adaptable when needed. Really I think the biggest strength anyone can have is really “problem solving” and realistically I mean figuring it out no matter what it takes. Heck I might not know how to do something at first but after sifting through documentation and videos if needed I will be able to do it.

Some roles I would be looking forward to pursuing are Cloud Applications Developer or anything cloud related. I also have a passion for security and would love to pursue both as a Cloud Security Engineer down the road. I would also be interested in any part time work even for charity purposes to help grow my knowledge on these concepts as they are always changing and adapting.

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Planning for growth of this application or any application I would focus on the scalability, cost effectiveness, and reliability of cloud services. Having microservices can enhance the scalability and is overall easier to manage. Also having a serverless architecture is less we'd have to manage and allows for automation of scaling and reducing overall cost when we don't need it. Along with not having to maintain physical servers. As previously described, auto-scaling can be used in cloud services to adjust resources based on demand which will save costs as you only pay for what you are using. And error handling can be used with redundant systems and automated monitoring tools to quickly be able to identify and address any issues.

Predicting cost when planning for growth is something that is done by current usage patterns and of course estimating the future. AWS for instance offers a pricing calculator to provide an estimate, of course you want to be sure to include your taxes. Now serverless is often more cost predictable as it's charged based on usage, but sometimes it can be more expensive. Yet again when it comes to data and cloud computing cheaper isn't always better.

Now when it comes to the decision making you'll want to consider elasticity and pay-for-service. Elasticity is essential for handling varying workloads without manually changing performance. This is great for ease of use, while overall ensuring user satisfaction. And pay-for-service aligns the cost directly with usage and having financial flexibility while preventing over-provisioning so you are only paying for what you are using.

In conclusion, my experience programming throughout my college education and personal projects along with my cloud experience, gives me a great benefit and understanding of

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cloud computing. The ability to strategically implement cloud services while understanding cost implications and scalability as needed is a key factor in my approach for planning for future growth.