CS 470 Final Reflection

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Video Link to Presentation: https://youtu.be/t30pSSNIUAo

This course has helped me reach my professional goals by teaching me how full-stack development can be done in a cloud-based environment. I have learned how to migrate a local server to the AWS cloud environment. I have also developed my skills in full-stack development by learning how to manage the back-end development using AWS services like AWS Lambda. To become a more marketable candidate for hiring in the software development field, this course has given me the tools deliverables to show to prospective companies my skills in full-stack development. My strengths as a software developer are writing secure code and learning and understanding new concepts and ideas. The types of roles I am prepared to assume in a new job would be working on front-end development as I find that side of development to be more interesting and I enjoyed working on it the most during this course. I could also work on back-end development; back-end development is also something I found to be interesting, but I would need to learn even more about it as the depth of the field is more expansive than I originally thought coming into this course.

AWS mircoservices and serverless tools, it is easy to handle efficiency across an application's stack. AWS Lambda and step functions, for example, can handle errors that may occur. AWS Auto Scaling address scale because it automatically adjusts capacity based on EC2 and DynamoDB instances. Another AWS tool called AWS Pricing Calculator provides cost estimations based on specific use cases. With a serverless architecture, the pricing calculator gives users the ability to predict potential cost. However, auto scaling from AWS Auto Scaling can increase or decrease the cost which will cause the estimation to be off. While it can differ from use case, typically serverless systems are more cost predictive compared to containers thanks to AWS Pricing Calculator.

There are a lot of pros and cons when it comes to application expansion plans that all play a deciding factor. The first step in any plan would be feasibility studies to see understand market dynamics and what benefits there would be for business expansion. If the cost outweighs the benefits, then do not expand. The biggest con against expansion would be cost; it costs not only money but also time to build new infrastructure, hire and train new staff, and the down time created from expansion. The pros for expansion would include increased profits from expansion. With a serverless architecture, the roles elasticity plays in decision making for future growth is that as you need more, you can always expand without downtime. Conversely, if you need less, you can always decrease the amount of resources you need. You can always get just the right amount for what you need. This compliments the pay-for-service model; you only pay for what you use, meaning you only use the resources you need at any moment and only pay for that amount. These concepts are what make serverless development well suited for future growth in software development.

Referenes

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