CS 470 FINAL REFLECTIONS
A FULL STACK WEB APPLICATION REVIEW

ALEXANDREA FULLWOOD
SNHU
alexandrea.teigeler@snhu.edu

Taking the course 'CS-470: Full Stack Development II', it has been able to give me crucial experience that I have been able to immediately apply on the job. Being introduced to the docker application, how containers are set up, maintained, and how container orchestration can be utilized, allowed me to bring this useful knowledge to my team members when we were deliberating the necessity of using docker for our own software and applications. I was able to be a valuable asset and offer key information that we could deliver to our supervisor. Using amazon's S3 had immediate application as well, as this was another tier of services that our team has been looking into using.

Skills that I have been able to develop and refine in this course to make me a better employee and more marketable candidate, is by having gone through the whole process of porting over a full stack application to the cloud. Understanding the fundamentals and being able to walk someone through how to set up a website using a popular service such as S3, would show employers that first, I understood the scope of the project, and second, that I was able to deliver what was necessary according to that scope and would be able to do that again for software they might need migrated to the cloud. I would also have knowledge about the benefits and downsides of using the cloud, as well as using a service such as S3. I would be able to give my team and superiors a better insight into what our needs are.

As a software developer, an important strength that I have is being able to ask the right questions when a feature or software is being discussed. This skill helps inform the requirements and help make sure that I can deliver a viable product to the customer and be a useful asset for my team members when I am assigned work. In my current position, understanding how to use databases and to query for information to pull data is a common task that is necessary when we

are wanting to improve our Machine Learning Models. Understanding how to save and cache the data provides us a way to use the large data sets without overusing our resources. Using important security protocols, I can make sound decisions when working with sensitive data.

Taking the knowledge I have learned from migrating a full stack to the cloud, I have been able to learn and identify key ways that microservices can be used to help streamline launching a website to the cloud, and how using S3 and serverless cloud management can help scale the web application as it grows or fluctuates in traffic. Using a cloud management service, such as S3, provides smaller upfront costs that having a dedicated server room requires. Forfeiting the need for equipment and providing a way for several different applications to be run simultaneously without interacting with the other, adds value to the business model. As providing ways for the customer to continuously have access to the business, by using container orchestration to prevent the site from going down, and by having fault isolation, when one application fails, it doesn't interfere with the others.

Other microservices that a cloud management service can offer, is making it easy to launch the application by how everything integrates well with the other. As long as it is a service provided by S3, for example, they will not cause other parts of the application to break. Having a lot of the details taken care of by microservices means that a business can have their website up quickly, and not hassle about details they don't need.

Pay-for-service can make a huge decision when deciding to use a service as opposed to setting up a server. If the business needs are small, or if traffic generation is uncertain, then only paying for what is used could prove more economical for a small or new business. It can also

help eliminate a lot of overhead by helping the business understand what their actual needs are without over or underpaying for what they need.

While having a service can help eliminate a lot of the overhead for a business, it can also prevent the business from having flexibility with how the application is set up. As Amazon S3 uses DynamoDB, it is not able for complete customization for a database or security. If a business needs a specific set up for their security preferences, or how the database is set up and configured, then using a service instead of having a dedicated server; may not be the best choice for their business needs.

Presentation:

https://youtu.be/5YrGLSEJn7U