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CS 470: Final Reflection

https://youtu.be/ZFK7QFrVsK0

This course, Full Stack Development II, has opened my eyes to the management of cloud and serverless technology. I have gained quite a bit of experience with Amazon Web Services (AWS), as well as Docker containerization and container management using Docker Compose. I have strengthened my knowledge of software architecture, and I have learned the intricacies of migrating an app to the cloud and developing the cloud infrastructure for which the app runs upon. My skills have grown extensively over time here at SNHU, including those for software design, development, testing, deployment, and maintenance. I have begun designing a video app that includes a few innovative features I think people will really enjoy. I also look forward to obtaining an internship in app design or development, possibly with cloud integration, as soon as possible. I really enjoy machine learning with Python and also have a strong interest in video game design and development, as I had quite a rewarding time creating a Super Mario Bros. simulated world using C++ and OpenGL.

Containerizing software into microservices and using serverless technologies allows servers to be automatically managed by the cloud provider. A microservices architecture allows for developing and deploying components independently. Elasticity refers to the ability to dynamically adjust resources in response to varying demand. Traditional non-cloud applications require predicting future resource use, as well as purchasing hardware upfront. This can lead to waste, and if not enough resources, customer dissatisfaction. The advantage to the cloud model is you only pay for what you need, and your app automatically scales based on demand, so zero waste.

The downside is that building an application for the cloud can add a bit more complexity to a software development project. However, serverless technology offers fault tolerance, load balancing, auto-scalability and -provisioning, security, and other benefits. To the cloud!