

CS-470 Reflection

Rachel Aldava

CS-470

Prof. M. Shah Alam

12/20/2024

CS-470 Reflection

The CS-470 course built off of the work achieved in CS-465. In CS-465, we built a website using a MEAN stack. In this course, we learned about different ways to host that system. In the first part of this course, we learned about containerization and setting up networks in Docker. In the other section of this course, we covered cloud hosting solutions offered by AWS. We focused in-depth on S3 storage, Lambda, Dynamo DB, and API Gateway development.

This course has increased my knowledge about different ways to launch web applications. This knowledge can help me in roles which involve web development, cloud services,, containerization, or even roles which require skills with AWS.

This final assignment asks me to also discuss the merits of cloud hosting as compared with traditionally hosted systems.

This is a tough question because the answer depends on a lot of different factors which are specific to the system in question.

One factor is how stable your system usage is. If you have a rapid increase in users, then I would say that cloud computing solutions offer a more flexible way of scaling because you would not need to purchase equipment which would quickly become obsolete. If your number of active users has large spikes at certain times of day, then using a service like Lambda could help you avoid having an overpowered system that is often idle. If Lambda is not an option, I think that self-hosting the service could potentially save money, as you could reduce operating costs during slow periods whereas renting a virtual server would involve a flat rate.

Another factor might be what resources you have available. If you do not have an appropriate location to run servers, or lack the employees to run the servers, or lack the liquidity to purchase servers, then your organization would find that outsourcing your server needs to the cloud can be a good decision.

Cloud services are also good for data protection; because the cloud service would have data centers are distributed in different physical locations, there is less of a risk that data could be lost due to a catastrophic event such as a fire. Similarly, having access to a robust infrastructure also means that your web service would likely have better speeds, latency, and uptime if it were hosted on the cloud.

Because cloud services maintain their hardware and upgrade their systems behind the scenes, cloud services can also be more reliable and have more predictable pricing as compared with self-hosted servers.