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10/24/2025

CS 470 Final Reflection

CS-470 – Full Stack Development II

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You Tube Link to final presentation:

<https://youtu.be/2WHqJyOIV9k>

Prompt

- **Experiences and Strengths:** Explain how this course will help you in reaching your professional goals.
 - What skills have you learned, developed, or mastered in this course to help you become a more marketable candidate in your career field?
 - This class has helped me to better understand how to deploy a full stack development application on a production facing platform.
 - Describe your strengths as a software developer.
 - My strengths are in designing UI's that are functional and easy to use for users. I also excel in troubleshooting issues as I have a lot of experience in IT support. I am also good at thinking though things logically.
 - Identify the types of roles you are prepared to assume in a new job.
 - Supporting platforms, designing UIs for companies, developing new applications that can be used for user industries. While I am prepared to assume lots of different roles I will still be working on improving my skills though job trainings, and other learning opportunities.
- **Planning for Growth:** Synthesize the knowledge you have gathered about cloud services.

- Identify various ways that microservices or serverless may be used to produce efficiencies of management and scale in your web application in the future. Consider the following:
 - How would you handle scale and error handling?
 - You need to carefully analyze your system and consider how much resources it needs to function while also providing sufficient room for handling additional traffic. For errors you would want to put in alerting and monitoring to let you know what type of errors and in what regions they are so that you can take appropriate actions to either migrate your traffic, Shift the traffic to another region that you would scale up to handle in increased load, or do emergency changes to the environment that is having the issue to resolve it.
 - How would you predict the cost?
 - You can use historical data, or usage data from similar products or services to predict the resource consumption of your application or service. You can then use data from the cloud system you are wanting to host your application on to come up with a reasonable estimate of what hosting your application would look like.
 - What is more cost predictable, containers or serverless?
 - Containers are more cost predictable as you will have the full cost of hosting the container on your local machine/servers. This means that you will pay the same if you have one container or a thousand containers. However, with Serverless the cost are usage based and therefore can fluctuate, but it is still cheaper as you don't have to maintain the servers yourself.
- Explain several pros and cons that would be deciding factors in plans for expansion.
 - Pros
 - Expansion gives you more resources and reliability as it creates more backup.

- It also provides access to more regions and users so that your application can generate revenue.
 - Allows for better scaling control.
- Cons
 - Increased resource usage means increased cost.
 - Must make sure that the application is maintained in additional environments.
 - Must make sure that systems are compatible.
- What roles do elasticity and pay-for-service play in decision making for planned future growth?
 - Elasticity means that the cloud service can dynamically scale server resources to meet your needs.
 - Pay for service means that you only pay for what your application is using.
 - These two together allow you to have the system auto-adjust to your applications needs while still allowing you to control cost.