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CS470 Final Reflection

Presentation: https://youtu.be/EwIhro_5jhU

Experience and Strengths:

What skills have you learned, developed, or mastered in this course to help you become a more marketable candidate in your career field?

The skills I have learned, developed and mastered are how to create a full stack application using an API, Database, Backend Server, as well as Front End, containerization and orchestration, and using Amazon Web Services and cloud technologies. These skills will greatly help with becoming a marketable candidate since most advanced software engineering companies require some experience with cloud technologies and working with full stack application technologies. Containerization and Orchestration is a massive plus since this shows an understanding for the concepts of isolating environments along with the benefits, and deployments.

Describe your strengths as a software developer.

My strengths as a software developer include being adaptable, diverse, and self-starter. I enjoy breaking the barriers and possibilities for software. I enjoy learning and exploring new solutions to problems and developing those solutions through software. I'm adaptable in the

sense that I can work with any technology and bring myself from beginner to experienced. I enjoy collaborating with others and building the future. I love innovation and handling complex problems and finding solutions.

Identify the types of roles you are prepared to assume in a new job.

The types of roles I am prepared to assume in a new job are:

Software Engineer, DevOps Engineer, Front End Software Engineer, Back End Software Engineer, Systems Engineer, Security Engineer, and Full Stack Engineer.

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.

Handling scale in a full scale web application involves using cloud services that provide scalability and flexibility. Amazon Web Services allows for scaling upward and outward based on the current needs of your application, and will automatically switch when needed in both directions.

It’s also important to understand error handling in an application. Logging is the most important step for handling errors, as well as properly managing and mitigating errors when they occur. A good strategy is to let the user know an error has occurred and create a micro service for bug/error reporting to log or report the errors directly the development team. These could be created as support/tickets. Predicting cost can be assessed using Amazon Web Services and cloud provider tools.

Understanding the scale of application and the direction the application is going will be important for assessing cost of services (includes back end, front end, api, and database services). Serverless is much more predictable since it’s managed by the cloud provider, versus containers which are fully managed on-premises by the development team.

Pay-for-service allows the development team and management to assess the overall performance and traffic needs before implementing a new service through the cloud provider. Assessing high volume usage and the user base will be important when considering the cost of services, since most cloud services are based on quantified usage (example 10000 requests/$.04).