

CS 470 Final Reflection

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CS-470 Full Stack Development II

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<https://youtu.be/iQcXYdPEK6w>

Experiences and Strengths

1. Throughout the eight-week course, I gained a solid understanding of Docker and AWS services, which are invaluable in today's tech landscape. Learning containerization and cloud-based infrastructure has strengthened my ability to develop and deploy cloud-native applications, making me a more marketable candidate in my career field.
2. My strengths as a developer include a robust problem-solving ability, meticulous attention to detail, and a solid understanding of software development methodologies. These skills enable me to manage projects effectively, deliver high-quality code, and contribute to the success of development teams.
3. The role I have prepared to assume in a new job is becoming a full stack engineer.

Planning for Growth

1. Microservices and serverless architectures offer significant benefits for web applications, including improved manageability and scalability. When handling scale and error handling with microservices, prioritizing application performance is crucial. By monitoring resource utilization and identifying bottlenecks, developers can make efficient resource allocation when scaling individual microservices. Predicting the cost can be applied serverless to use cost estimation tools to follow the pay-per-use model, making it easier to predict expenses. Unlike containers, serverless offers greater cost predictability due to its consumption-based pricing, since containers cannot predict idle time and resource utilization.
2. The benefits of expansion would be increasing growth revenue and market shares. Expanding provides opportunities to have a new customer base while diversifying revenue streams. However, expansion is always a hefty price to pay, including upfront costs for new facilities

and staff. Expansion can also be difficult because integrating new operations into existing ones may be challenging or time-consuming.

3. Elasticity is when a system can scale up or down, when necessary, without manual intervention. Pay-for-service is only paying for services utilized. When planning for future growth, it optimizes resource allocation, reduces risks, and provides flexibility to handle traffic.