

Final Reflection

Professional Impact

This CS 470 course has definitely pushed my skills as a full-stack developer. I've gotten hands-on with technologies that are actually used in the industry:

- Containerization with Docker and Docker Compose
- Cloud development using AWS (Lambda, S3, DynamoDB)
- Building and testing RESTful APIs with Node.js and Express

These aren't just theoretical concepts - they're practical skills that companies are looking for right now.

Key Takeaways

Beyond the tech stack, I've improved in areas that matter in real-world development:

- Problem-solving: I can break down complex issues and find workable solutions, especially in cloud environments.
- Adaptability: Tech changes fast, and now I have a better idea of how to keep up.
- Teamwork: Got better at collaborating using version control and communicating technical ideas clearly.

Where I Fit In

With this skill set, I'm now equipped for roles like:

- Full-Stack Developer
- Cloud Engineer
- DevOps Engineer

I can handle both front-end and back-end tasks, work with cloud platforms, and understand how to streamline development processes.

Looking Forward: Microservices and Serverless

Microservices and serverless architectures are big topics in the industry right now. Here's my take:

- They allow for more flexible, scalable applications
- Automatic scaling in serverless platforms can handle traffic spikes efficiently
- But they come with challenges like managing increased complexity and potential cold start issues

Cost-wise, serverless can be more predictable for variable workloads, while containers might be better for consistent usage patterns.

Planning for Growth

When thinking about scaling up, there are trade-offs to consider:

- Pros
 - Easy to scale resources based on actual demand
 - Pay-for-use model can be cost-effective
- Cons
 - Potential performance hits from cold starts in serverless
 - Managing multiple microservices can get complicated

The flexibility of cloud services allows for aligning tech capabilities with business growth, which is crucial for planning expansion.

Wrapping Up

This course has given me a solid foundation in modern web development practices. I feel prepared to contribute to real-world projects and continue learning as the field evolves.