Crafting a Service with Production Mastery

This project represents a pivotal step in my journey, strategically crafted to immerse me in the technologies and methodologies of my new company. Designed as an onboarding initiative, it serves as a comprehensive introduction to the intricacies of the company's systems, processes, and technological landscape. In this project, I successfully integrated a new microservice into an existing Kubernetes-based ecosystem. The integration process demanded a nuanced understanding of the ecosystem's architecture, ensuring cohesion with established standards and harmonious interaction with other services.

- Construct monitoring dashboards using Grafana
- Deploy the microservice using the Canary approach
- Implement robust logging practices, formatting logs for readability in Graylog
- Implement A/B testing methodologies to validate and optimize the microservice's functionality through controlled experiments
- Strategically design a panic mode feature to deactivate non-essential functionalities during high-pressure scenarios
- Incorporate rigorous testing methodologies, including both unit and integration tests

The integration of the new microservice has yielded remarkable outcomes, with the service consistently achieving a response time below 100 milliseconds, attesting to its efficiency and rapid responsiveness. Operating at a commendable availability rate of 95 percent, the service ensures reliable access for users, contributing to an enhanced user experience. The project's commitment to documentation excellence is evident through the creation of comprehensive materials, including detailed software engineering artifacts such as sequence diagrams, entity-relationship diagrams (ERD), and flow diagrams.