



Technical Challenge: Kubernetes Deployment Strategies

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Overview

This technical challenge focuses on demonstrating your ability to implement modern deployment strategies in Kubernetes. You'll create a practical demonstration of Blue/Green and Canary deployments in a local kubernetes environment.

🎯 Challenge Objectives

Create a GitHub repository that demonstrates:

- Blue/Green deployment implementation
- Canary deployment strategy
- Clear documentation and instructions

🛠️ Technical Requirements

Required Implementations

1. Web Services

- Simple web servers with version identification
- Request logging to stdout
- Different responses for each deployment version

2. Kubernetes Setup

- Local cluster using any tool (minikube, microk8s, etc)

3. Load Testing tool

- Implement k6 scripts (or any load test tool) to simulate traffic



Deliverables

GitHub Repository Contents

- Documentation
 - Setup instructions in README.md
 - Step-by-step deployment guide
- Code
 - Dockerfiles for services
 - Kubernetes manifests
 - Load testing scripts



Evaluation Focus

- Code quality and organization
- Easy to deploy/run scenarios
- Implementation correctness
- Documentation clarity
- Testing approach

