GitOps: Continuous Delivery on Kubernetes with Flux (LFS269)

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WE ARE CAS

Duración
40 Horas

Modalidad
Aula Virtual

Learning by doing

Curso Oficial

Acerca de:

This course provides a foundational deep dive into GitOps principles and practices, and how to implement them using Flux CD. Flux CD uses a reconciliation approach to keep Kubernetes clusters in sync using Git repositories as the source of truth.

This course helps you build essential Git and Kubernetes knowledge for a GitOps practitioner by setting up Flux v2 on an existing Kubernetes cluster, automating the deployment of Kubernetes manifests with Flux, and incorporating Kustomize and Helm to create customizable deployments.

It teaches you to set up notifications and monitoring with Prometheus, Grafana and Slack, integrate Flux with Tekton-based workflows to set up CI/CD pipelines, build release strategies, including canary, A/B testing, and blue/green, deploying to multi-cluster and multi-tenant environments, integrate GitOps with service meshes such as Linkerd, and Istio, securing GitOps workflows with Flux, and much more.

Objetivos:

This course will give you in-depth knowledge on how to implement Flux CD and GitOps practices to set up a Continuous Delivery pipeline on your Kubernetes environments, and provide a sense of operational control via git-based workflows like branching models and pull requests.

Requisitos:

To make the most out of this course, you will need to have:

- Familiarity with Kubernetes (pods, ReplicaSets, deployments, services, namespaces, kubectl and YAML specs, CRDs, controllers/operators), Helm and Kustomize
- Familiarity with git (branching, merging, remotes, pull requests, branching models, protected branches, code reviews)
- Basic familiarity with Continuous Integration/Continuous Delivery (building pipelines, setting up automated builds, tests, building artifacts and images, etc.)

Material del curso:

- Documentación Oficial de This course GitOps: Continuous Delivery on Kubernetes with Flux (LFS269)

Perfil del docente:

- Formador Certificado por The linux Foundation
- Más de 5 años de experiencia profesional
- Más de 4 años de experiencia docente
- Profesional activo en empresas del sector IT

Metodología:

- “Learning by doing” se centra en un contexto real y concreto, buscando un aprendizaje en equipo para la resolución de problemas en el sector empresarial.
- Aulas con grupos reducidos para que el profesional adquiera la mejor atención por parte de nuestros instructores profesionales.
- El programa de estudios como partners oficiales es confeccionado por nuestro equipo de formación y revisado por las marcas de referencia en el sector.
- La impartición de las clases podrá ser realizada tanto en modalidad Presencial como Virtual.

Contenidos:

Module 1: Course Introduction

Module 2: Introduction to Flux CD

Module 3: Setting up a Learning Environment

Module 4: Kubernetes Essentials for a GitOps Practitioner

Module 5: Essentials of Git Workflows

Module 6: Deploying Your Application on Kubernetes with Flux

Module 7: Kustomizing Kubernetes Deployments

Module 8: Integrating with Helm

Module 9: Monitoring and Alerting

Module 10: Integrating CI with CD using Tekton

Module 11: Achieving Multi-Tenancy with Flux

Module 12: Building Release Strategies with Service Mesh and Flagger

Module 13: Securing GitOps Workflows

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