Introduction to Kubernetes on Edge with k3s (LFS156x)

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WE ARE CAS

Duración
16 Horas

Modalidad
Aula Virtual

Learning by doing

Curso Oficial

Acerca de:

In this course, you will learn the use cases for running compute in edge locations and about various supporting projects and foundations such as LF Edge and CNCF.

The course covers how to deploy applications to the edge with open source tools such as K3s and k3sup, and how those tools can be applied to low-power hardware such as the Raspberry Pi. You will learn the challenges associated with edge compute, such as partial availability and the need for remote access.

Through practical examples, students will gain experience of deploying applications to Kubernetes and get hands-on with object storage, MQTT and OpenFaaS. It also introduces the fleet management and GitOps models of deployment, and helps you understand messaging, and how to interface with sensors and real hardware.

Objetivos:

This course will enable developers to learn about the growing impact the cloud native movement is having on modernizing edge deployments.
They will also learn the challenges of deploying Kubernetes on the edge through a concrete example via the k3s project.

Requisitos:

- You should be familiar with the Linux Operating System and how to use common CLI commands to pass arguments, make use of configuration files, and to configure networking.
- A basic understanding or some prior experience with deploying applications to Kubernetes would be helpful to you.
- You will need to be able to run Docker on your computer.

Material del curso:

- Documentación Oficial de This course Introduction to Kubernetes on Edge with k3s (LFS156x)

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.

Examen y Certificación:

Preparation for the exam: Certified Kubernetes Administrator (CKA)

Contenidos:

Module 1: The Case for Edge Compute

Module 2: The Edge Compute Landscape

Module 3: Scaling Down and System-on-Chip Devices

Module 4: K3s: What Is and Why Is It needed?

Module 5: Setting Up Your Own Lab Environment

Module 6: Deploying Real Workloads with the Kubernetes API

Module 7: Functions at the Edge

Module 8: Command & Control and Remote Access

Module 9: Deployment Strategies for Applications at the Edge

Module 10: Challenges with the Edge

Module 11: Continue Your Journey

Final Exam(Verified Track only)

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