



Kubernetes Administration (LFS458)

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Nivel
Intermedio



Duración
28 Horas



Modalidad
Aula Virtual



Learning
by doing



Curso
Oficial

Kubernetes Administration (LFS458)

Objetivos:

By the end of this course you will be prepared to install and configure a production-grade Kubernetes cluster, from network configuration to upgrades to making deployments available via services, and also handle the ongoing tasks necessary for Kubernetes administration.

This course also serves as preparation for the CKA certification exam.

Requisitos:

Students should have an understanding of Linux administration skills, comfortable using the command line. Must be able to edit files using a command-line text editor.

Material del curso:

- Documentación Oficial de This courseKubernetes Administration (LFS458)

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 adquiriera 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:

Modulo 1:Introduction

- Linux Foundation
- Linux Foundation Training
- Linux Foundation Certifications
- Linux Foundation Digital Badges
- Laboratory Exercises, Solutions and Resources
- E-Learning Course: LFS258
- Distribution Details
- Labs

Modulo 2:Basics of Kubernetes

- Define Kubernetes
- Cluster Structure
- Adoption
- Project Governance and CNCF
- Labs

Modulo 3:Installation and Configuration

- Getting Started With Kubernetes
- Minikube
- kubectl
- More Installation Tools
- Labs

Modulo 4:Kubernetes Architecture

- Kubernetes Architecture
- Networking
- Other Cluster Systems
- Labs

Modulo 5:APIs and Access

- API Access
- Annotations
- Working with A Simple Pod
- kubectl and API
- Swagger and OpenAPI
- Labs

Modulo 6:API Objects

- API Objects
- The v1 Group
- API Resources
- RBAC APIs
- Labs

Modulo 7:Managing State With Deployments

- Deployment Overview
- Managing Deployment States
- Deployments and Replica Sets
- DaemonSets



- Labels
- Labs

Modulo 8: Volumes and Data

- Volumes Overview
- Volumes
- Persistent Volumes
- Rook
- Passing Data To Pods
- ConfigMaps
- Labs

Modulo 9: Services

- Overview
- Accessing Services
- DNS
- Labs

Modulo 10: Ingress

- Overview
- Ingress Controller
- Ingress Rules
- Service Mesh
- Labs

Modulo 11: Scheduling

- Overview
- Scheduler Settings
- Policies
- Affinity Rules
- Taints and Tolerations
- Labs

Modulo 12: Logging and Troubleshooting

- Overview
- Troubleshooting Flow
- Basic Start Sequence
- Monitoring
- Plugins
- Logging
- Troubleshooting Resources
- Labs

Modulo 13: Custom Resource Definition

- Overview
- Custom Resource Definitions
- Aggregated APIs
- Labs

Modulo 14: Helm

- Overview
- Helm
- Using Helm
- Labs



Modulo 15:Security

- Overview
- Accessing the API
- Authentication and Authorization
- Admission Controller
- Pod Policies
- Network Policies
- Labs

Modulo 16:High Availability

- Overview
- Stacked Database
- External Database
- Labs

Modulo 17:Closing and Evaluation Survey

- Evaluation Survey

Modulo 18:Appendices

Modulo 19:Domain Review

- CKA Exam
- Exam Domain Review



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