Kubernetes CKA Professional

Duration: 3 Days Course Code: GKKUBCKA Delivery Method: Virtual Learning

Overview:

Develop the practical expertise required for production-facing roles supporting cloud native and AI platforms at scale.

This Kubernetes CKA Professional course is a Kubernetes Fundamentals and CKA exam theory training.
The Certified Kubernetes Administrator (CKA) program was created by the Cloud Native Computing Foundation (CNCF), in collaboration with The Linux Foundation (TLF), to help develop the Kubernetes ecosystem.based on an understanding of the Kubernetes Architecture, in the context of IT development, Microservices, and Cloud-Native so that you, at the end of this course, can start using Kubernetes as Engineer based on understanding, and insight into Kubernetes,

This training follows the contents as prescribed for the CKA exam for certification by offering the theory in presentation form and performing multiple detailed exercises.
The experiences you gain during the training will give you tools to use Kubernetes in practice and prepares you, for the theoretical part, for the CKA exam.

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Virtual Learning

This interactive training can be taken from any location, your office or home and is delivered by a trainer. This training does not have any delegates in the class with the instructor, since all delegates are virtually connected. Virtual delegates do not travel to this course, Global Knowledge will send you all the information needed before the start of the course and you can test the logins.

Target Audience:

The training is meant for: Engineers responsible for designing, setting up, or managing Kubernetes clusters. The level of entry is from beginning to medium knowledge of Kubernetes. For anyone who aims to obtain certification as a Certified Kubernetes Administrator (CKA). This training teaches the theory needed for the CKA Exam.

Objectives:

- After this course participants should be able to:
- Install and configure Kubernetes clusters
- Work with core concepts like
- Pods,
- Deployments,
- Services,
- Ingress,
- Gateway API.
- Apply security and high availability practices in real-world production environments
- Prepare the certification exam CKA

Prerequisites:

- Minimum dexterity/basic knowledge of Linux command-line (Bash, Linux commands), Private Keys and Public Keys are required to follow the pace of this training.

Testing and Certification

Certified Kubernetes Administrator: The Certified Kubernetes Administrator (CKA) program is spearheaded by CNCF in partnership with The Linux Foundation. This certification is designed for professionals looking to demonstrate their hands-on Kubernetes skills.

CKA is a performance-based exam where candidates interact with the command line to solve real-world challenges, not just multiple-choice questions.

Follow-on-Courses:

The following is recommended for further study:

- Kubernetes Administrator Advanced (GKKUBCKAA)
- GKKUBCKA-E -

Content:

Topics taught:

- A History of IT
- Virtualization: what is a Virtual Machine, a Container, and the difference between the two
- What is Kubernetes, what is Cloud Native? And why is this development important?
- Kubernetes architecture, principles, components, resources (deployment, replicaset, pods)
- Basic concepts of Kubernetes: control plane, resources in detail, services, draining nodes, setting limits, tolerations, anti-affinity, horizontal scaling, deployments, release management ; canary releases, liveliness checks, readiness checks updates, rollbacks, configsmaps ; secrets, lifecycle-hooks ; init containers, logging, monitorin
- Storage
- Kubernetes use principles: Helmet, Ingress Controller
- Kubernetes security: Role Based Access Control (RBAC).

Chapter 1. Course Introduction

Chapter 2. Basics of Kubernetes

Chapter 3. Installation and Configuration

Chapter 4. Kubernetes Architecture

Chapter 5. APIs and Access

Chapter 6. API Objects

Chapter 7. Managing State with Deployments

Chapter 8. Helm and Kustomize

Chapter 9. Volumes and Data

Chapter 10. Services

Chapter 11. Ingress

Chapter 12. Scheduling

Chapter 13. Logging and Troubleshooting

Chapter 14. Custom Resource Definitions

Chapter 15. Security

Chapter 16. High Availability

Chapter 17. Exam Domain Review

Additional Information:

Digital course book provided to paticipants

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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