



Information Technology

Certified Kubernetes Administrator (CKA)

Course Introduction

The Certified Kubernetes Administrator course is the ideal way to prepare for the CKA exam. The Certified Kubernetes Administrator training covers all domains including installation, application lifecycle management, configuration & verification, cluster maintenance, networking, planning & troubleshooting.

Target Audience

- Cloud Computing Engineer
- Computer Network Specialist
- Computer Support Specialist
- Database Administrator
- Information Technology Analyst
- Information Technology Leadership
- Information Security Specialist
- Software/Application Developer
- Web Developer
- Technology sales consultant

Learning Objectives

- Explain the Kubernetes system architecture and components.
- Design and deploy applications in Kubernetes .
- Configure and manage Kubernetes clusters .
- Troubleshoot and maintain applications running on Kubernetes.
- Manage security and authentication for the Kubernetes cluster.
- Manage networking for the Kubernetes cluster.
- Manage storage and logging for the Kubernetes cluster.

- Monitor and optimize performance of the Kubernetes cluster.
- Deploy , extend and troubleshoot the Kubernetes system itself .
- Maintain the underlying infrastructure .

Course Outline

• Day 01

Storage

- Understand storage classes, persistent volumes
- Understand volume mode, access modes and reclaim policies for volumes
- Understand persistent volume claims primitive
- Know how to configure applications with persistent storage

• Day 02

Troubleshooting

- Evaluate cluster and node logging
- Understand how to monitor applications
- Manage container stdout & stderr logs
- Troubleshoot application failure
- Troubleshoot cluster component failure
- Troubleshoot networking

• Day 03

Workloads & Scheduling

- Understand deployments and how to perform rolling update and rollbacks
- Use ConfigMaps and Secrets to configure applications
- Know how to scale applications
- Understand the primitives used to create robust, self-healing, application deployments
- Understand how resource limits can affect Pod scheduling
- Awareness of manifest management and common templating tools

• Day 04

Cluster Architecture, Installation & Configuration

- Manage role based access control (RBAC)
 - Use Kubeadm to install a basic cluster
 - Manage a highly-available Kubernetes cluster
 - Provision underlying infrastructure to deploy a Kubernetes cluster
 - Perform a version upgrade on a Kubernetes cluster using Kubeadm
 - Implement etcd backup and restore
- Day 05

Services & Networking

- Understand host networking configuration on the cluster nodes
- Understand connectivity between Pods
- Understand ClusterIP, NodePort, LoadBalancer service types and endpoints
- Know how to use Ingress controllers and Ingress resources
- Know how to configure and use CoreDNS
- Choose an appropriate container network interface plugin

Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
April 7, 2025	April 11, 2025	5 days	4250.00 \$	UAE - Abu Dhabi
July 21, 2025	July 25, 2025	5 days	4250.00 \$	UAE - Dubai
Aug. 25, 2025	Aug. 29, 2025	5 days	4950.00 \$	Spain - Barcelona
Oct. 27, 2025	Oct. 31, 2025	5 days	4950.00 \$	England - London