

CKA: Certified Kubernetes Administrator

Course Code: CKA
Duration: 4 days
Instructor-led Training (ILT) | Virtual Instructor-led Training (VILT)

OVERVIEW

CKA was created by The Linux Foundation and the Cloud Native Computing Foundation (CNCF) as a part of their ongoing effort to help develop the Kubernetes ecosystem. The exam is an online, proctored, performance-based test that requires solving multiple tasks from a command line running Kubernetes.

Learn more about Kubernetes Expertise here: [Kubernetes Expertise: Unlocking Cloud Potential in Malaysia](#)

SKILLS COVERED

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

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

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

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

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

WHO SHOULD ATTEND?

This certification is for Kubernetes administrators, cloud administrators and other IT professionals who manage Kubernetes instances.

PREREQUISITES

There are no prerequisites required to attend this course.

MODULES

Module 1: Course Introduction

Module 2: Basics of Kubernetes

Module 3: Installation and Configuration

Module 4: Kubernetes Architecture

Module 5: APIs and Access

Module 6: API Objects

Module 7: Managing State with Deployments

Module 8: Volumes and Data

Module 9: Services

Module 10: Helm

Module 11: Ingress

Module 12: Scheduling

Module 13: Logging and Troubleshooting

Module 14: Custom Resource Definitions

Module 15: Security

Module 16: High Availability

Module 17: Exam Domain Review**END OF PAGE**