Certified Kubernetes Administrator (CKA)

This intermediate-level Kubernetes training covers the objectives in the CKA exam, which is the one required exam to earn the Certified Kubernetes Administrator (CKA) certification. Learn the skills needed to install, configure and manage Kubernetes containers so that your application life cycle stays reliable and efficient.

CBT Nuggets course material →

STUDY PLAN

WEEK 1

Deploy a Kubernetes Cluster using Kubeadm — 161 min.

Intro to Kubernetes Deployment Tools	9
Prepare Amazon VPC and EC2 Instance for Kubeadm	12
Install Kubeadm and Dependencies for Kubernetes	8
Initialize Kubernetes Master Node with Kubeadm	17
Install Project Calico Container Network Interface	8

Configure Role-Based Access Control (RBAC) in Kubernetes

Overview	1
Intro to Role-Based Access Control in Kubernetes	11
Create Certificate Credentials for Kubernetes User	11
Create KubeConfig File for Kubernetes User	14
Create Roles and RoleBindings in Kubernetes	14

Understanding Kubernetes Manifest Files

Overview	1
Intro to Kubernetes Manifest Files	11
Use Kubernetes API Reference to Understand Manifests	13
Kubernetes API Groups and Resources	8
Create Kubernetes Manifests with Trial and Error	21

WEEK 2

Understanding Networking in Kubernetes — 159 min.

Overview	1
Intro to Networking in Kubernetes	13
Create NodePort Services in Kubernetes	20
Expose Services on Internal Cluster Network	10

Understanding CoreDNS in Kubernetes

Using Liveness and Readiness Probes in Kubernetes Pods

WEEK 3

155 min.

Understanding Deployments on Kubernetes

Build and Deploy Custom Container Images for Kubernetes Pods

Horizontal Pod Scaling on Kubernetes

WEEK 4

154 min.

Configure Cluster Autoscaling in Kubernetes

Deploy Highly Available Etcd Cluster for Kubernetes

WEEK 7

80 min.

Understanding Storage Volumes in Kubernetes