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CKA Training Preparation and Certification

ALL-IN-ONE: EXAMINATION INCLUDED IN PRICE

2 days (14 hours)

Presentation

Have you attended our [Kubernetes training for administrators](#), and would you like to obtain CKA certification? You don't want to fail the exam? For 2 days, we'll prepare you for the assessment so that you have every chance of becoming a Certified Kubernetes Administrator.

The CKA (Certified Kubernetes Administrator) is a recognized certification that enables you to prove to your employees that you have the skills required to carry out the tasks of a Kubernetes administrator. This means installing, configuring and monitoring Kubernetes clusters.

The exam is divided into 5 parts: Storage, Troubleshooting, Workloads and Scheduling, Architecture, Cluster Installation and Configuration and Services and Networking. During this preparation day, we'll go back over these 5 concepts, while giving you the automatisms and tactics you need to complete your assessment more quickly.

Objectives

- Kubernetes administrator tasks
- Be ready to pass the CKA exam

Target audience

Developers, Architects, Systems administrators, DevOps

Prerequisites

- Good knowledge of how to use Kubernetes for administration or have taken our [advanced Kubernetes training course: administration in production](#)
- Basic knowledge of a Unix system and how containers work

Software requirements

Have an SSH client that can connect to your administration machine.

Pre-course reading recommendations

- [Tips and tricks for passing your CKA exam](#) shared by Giuseppe Santoro, Senior Software Engineer at Elastic
- [The official](#) Kubernetes.io [command cheat sheet](#)

CKA exam preparation program

Kubernetes certifications

- The different certifications
- Certification process
- The environment
- Expectations for CKA

Tips & tricks

- Must-have orders
- Bookmarks

Setting up a cluster with kubeadm

- Initializing the cluster and adding nodes
- Network plugin installation
- Static pods
- Different types of configuration files (kubeconfig, certificates, etc.)

Workloads

- Main application resources (Pod, Deployment, DaemonSet, etc.)
- Configuration resources (Secret, ConfigMap)

Scheduling pods

- Scheduling overview
- The different phases
- Properties used to select a node (nodeSelector, PodAffinity, ...)

Networking

- Kubernetes networking model
- The different types of communication in a cluster
- Overview CNI (Container Network Interface)
- Service
- Ingress controller

Storage

- Volumes reminder
- PV, PVC, StorageClass

Security

- Authentication and authorization (RBAC)
- SecurityContext
- NetworkPolicy

Troubleshooting

- Different solutions for managing logs and metrics
- Control-plane component logs
- Troubleshooting examples

Operate a kubeadm cluster

- Updating a cluster
- Backing up and restoring etcd

Companies concerned

This training course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

Positioning on entry to training

Positioning on entry to training complies with Qualiopi quality criteria. As soon as

Upon final registration, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the forthcoming training course, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which could be problematic for the follow-up and smooth running of the training session.

Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Sanction

A certificate will be issued to each trainee who completes the course.