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Sign up

CKAD Certification Training

ALL-IN-ONE: EXAMINATION INCLUDED IN PRICE

2 days (14 hours)

Presentation

Have you attended our Kubernetes and microservices training course, and would like to acquire CKAD certification? You don't want to fail the assessment? For 2 days, we'll prepare you for the exam so that you have every chance of becoming a Certified Kubernetes Application Developer.

The CKAD (Certified Kubernetes Application Developer) is a recognized certification that enables you to prove to your employees that you have the skills needed to carry out the tasks of a Kubernetes developer to make your infrastructure scalable. Namely, the design, configuration and showcasing of native cloud applications.

The exam is divided into 7 parts: fundamental concepts, configuration, multi-container pods, observability, pod design, services and networking, and the state persistence. During this preparation day, we'll go back over these 7 concepts and give you the automatisms and tactics you need to finish your assessment more quickly.

Objectives

- Consolidating Kubernetes knowledge for developers
- Have all the keys to deploy applications scalably, resiliently, securely and automatically on Kubernetes
- Get ready for CKAD certification

Target audience

- Developers

- Architects
- System administrators
- DevOps

Prerequisites

- Good knowledge of how to use Kubernetes for development or have taken our Kubernetes training course
- Basic knowledge of Docker and Linux systems

TECHNICAL PREREQUISITES

- PC running Mac or Linux or Windows with WSL (with administrator privileges to install tools if required)
- Unrestricted Internet access

CKAD exam preparation program

Kubernetes basics

- Kubernetes architecture
- Manifest YAML
- Pod
- Namespaces
- Label/Annotations

Workloads on Kubernetes

- Deployment
- Daemonset
- Replicaset
- Statefulsets
- Jobs/CronJobs
- Pod multi-container, Init container

Networking in Kubernetes

- Type of service
- Service headless
- Ingress
- NetworkPolicy

Observability and debugging

- Logging
- Events
- Liveness and readiness probe

Workload configuration

- Environment variables
- Configmaps
- Secrets
- SecurityContext
- Role and RoleBinding

Data persistence

- Volume
- StroageClass
- PersistenceVolume/ PersistentVolumeClaim
- Statefulsets

Resource scheduling

- Selectors
- Affinity
- Taints/Tolerations

Deployment strategy

- Update strategies
- Blue/Green deployment
- Canary deployment

Configuring Kubernetes

- CRD
- Operator Framework
- API Groups and API Versions
- Admission Controller

Packaging for Kubernetes

- Fundamental concepts
- Chart Helm
- Kustomize

Strategy and method for success

- Shortcuts and aliases
- Advanced use of kubectl
- Navigating between clusters and namespaces?

Companies concerned

This 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 at the start of training complies with Qualiopi quality criteria. As soon as registration is finalized, 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 training to come, 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.