Training: The Linux Foundation
CKAD Certified Kubernetes Application Developer

THE LINUX FOUNDATION AUTHORIZED TRAINING PARTNER

TRAINING GOALS:



The Certified Kubernetes Application Developer exam certifies that users can design, build, configure, and expose cloud native applications for **Kubernetes**.

Overview

The Certified Kubernetes Application Developer (**CKAD**) program has been developed by **The Linux Foundation** and the **Cloud Native Computing Foundation** (**CNCF**), the host of Kubernetes, to help expand the Kubernetes ecosystem through standardized training and certification. As one of the highest velocity projects in the history of open source, Kubernetes use is exploding.

CNCF is committed to growing the community of Kubernetes-knowledgeable application developers, thereby enabling continued growth across the broad set of organizations using the technology. Certification is a key step in that process, allowing certified application developers to quickly establish their credibility and value in the job market, and also allowing companies to more quickly hire high-quality teams to support their growth.

The Certified Kubernetes Application Developer exam certifies that users can design, build, configure, and expose cloud native applications for Kubernetes. A Certified Kubernetes Application Developer can define application resources and use core primitives to build, monitor, and troubleshoot scalable applications and tools in Kubernetes.

There are no pre-requisites for this exam.

Exam Delivery: Online

Duration of Exam: 2 Hours

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Certification Valid: 2 Years

Version of Software: Kubernetes v1.14

Includes:

- 12 Month Exam Eligibility
- Free Exam Retake
- PDF Certificate

Domains & Competencies

The CKAD Certification focuses on the skills required to be a successful Kubernetes Application Developer in industry today. The exam assumes knowledge of, but does not test for, container runtimes and a microservice architecture. The successful candidate will be comfortable using:

- An OCI-Compliant Container Runtime, such as Docker or rkt.
- Cloud native application concepts and architectures.
- A programming language, such as Python, Node.js, Go, or Java.

The exam curriculum includes these general domains and their weights on the exam:

Core Concepts – 13%

- Understand Kubernetes API primitives
- Create and Configure Basic Pods

Configuration – 18%

- Understand ConfigMaps
- Understand SecurityContexts
- Define an application’s resource requirements
- Create & consume Secrets
- Understand ServiceAccounts

Multi-Container Pods – 10%

- Understand Multi-Container Pod design patterns (e .g. ambassador, adapter, sidecar)

Observability – 18%

- Understand LivenessProbes and ReadinessProbes
- Understand container logging
- Understand how to monitor applications in Kubernetes
- Understand debugging in Kubernetes

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Pod Design – 20%

- Understand how to use Labels, Selectors, and Annotations
- Understand Deployments and how to perform rolling updates
- Understand Deployments and how to perform rollbacks
- Understand Jobs and CronJobs

Services & Networking – 13%

- Understand Services
- Demonstrate basic understanding of NetworkPolicies

State Persistence – 8%

- Understand PersistentVolumeClaims for storage

Exam details

This exam is an online, proctored, performance-based test that consists of a set of performance-based items (problems) to be solved in a command line. Candidates have 2 hours to complete the tasks.

The exam is based on Kubernetes v1.14

Policies & Resourcse

Please review the Candidate Handbook, Curriculum Overview and Exam Tips along with other recommended resources below.

https://training.linuxfoundation.org/certification/certified-kubernetes-application-developer-ckad/

Difficulty level



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