

CKAD: Certified Kubernetes Application Developer

Course Code: CKAD

Duration: 3 days

Instructor-led Training (ILT) | Virtual Instructor-led Training (VILT)

OVERVIEW

What are the most in-demand IT skills/jobs in the 2021 and beyond? Google any reputable sites (e.g. forbes.com, cio.com, techrepublic.com, sdxcentral.com, etc) and you will notice that “Cloud” and “Container” technologies are always in the top 10 most in-demand list.

Especially now during the Covid19 period, many companies are pivoting to the cloud to streamline their operations and become more agile. Having a CKAD certification will definitely make you more in demand, and enables you to command a higher pay with the potential employers.

This CKAD Training course is NOT the official training course offered by the LinuxFoundation – but is structured according to the official CKAD Exam Curriculum.

SKILLS COVERED

At the end of the course, the following learning objectives are expected to be achieved:

- Help you pass your CKAD Exam and earn your CKAD Badge!
- Learn by Doing. This course is extremely hands-on. Each topic has its own lab exercises. The instructor will explain the concepts, run lab demo, and then you get try it out yourself.

- The CKAD exam is 100% hands-on. You need to complete all the tasks given within 2 hours. This course prepares you for that with its numerous lab exercises at the end of each topic. At the end of this course, there will be simulation exam for you to practice your skills.

WHO SHOULD ATTEND?

This certification is for Kubernetes engineers, cloud engineers and other IT professionals responsible for building, deploying, and configuring cloud native applications with Kubernetes.

PREREQUISITES

A basic understanding of Container technologies is preferred, but not required.

MODULES

Module 1: Application Design and Build – 20%

- Define, build and modify container images
- Understand Jobs and CronJobs
- Understand Multi-Container Pod design patterns (eg. sidecar, init and others)
- Utilize persistent and ephemeral volumes

Module 2: Application Development - 20%

- Use Kubernetes primitives to implement common deployment strategies (eg. blue/green or canary)
- Understand Deployments and how to perform rolling updates

Module 3: Application Observability - 15%

- Understand API deprecations

- Implement probes and health checks
- Use provided tools to monitor Kubernetes applications
- Utilize container logs
- Debugging in Kubernetes

Module 4: Application Environment Configuration and Security – 25%

- Discover and use resources that extend Kubernetes (CRD)
- Understand Authentication, Authorization and Admission Control
- Understanding and defining resource requirements, limits and quotas
- Understand ConfigMaps
- Create & Consume Secrets
- Understand ServiceAccounts
- Understand SecurityContexts

Module 5: Services & Networking – 20%

- Demonstrate basic understanding of Network Policies
- Provide and Troubleshoot Access to Applications via Services
- Use Ingress rules to expose applications

Module 6: Bonus Section (Exam Tips)

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