



Certified Kubernetes Application Developer (CKAD)

- ▲ Master Kubernetes Application Development with CNCF's Developer-Focused Certification.
- ▲ The Certified Kubernetes Application Developer (CKAD) exam certifies that users can design, build, configure, and expose cloud native applications for Kubernetes.

Prerequisites

- ▲ Developer-focused certification
- ▲ Application lifecycle management
- ▲ Cloud-native application design
- ▲ CNCF industry recognition



Module 1. Application Design and Build (20%)

- ▲ Define, build and modify container images
- ▲ Understand Jobs and CronJobs
- ▲ Understand multi-container Pod design patterns
- ▲ Utilize persistent and ephemeral volumes

Module 2. Application Deployment (20%)

- ▲ Use Kubernetes primitives to implement common deployment strategies.
- ▲ Understand Deployments and how to perform rolling updates.
- ▲ Use the Helm package manager to deploy existing packages.

Module 3. Application Observability and Maintenance (15%)

- ▲ Understand API deprecations
- ▲ Implement probes and health checks
- ▲ Use provided tools to monitor Kubernetes applications
- ▲ Utilize container logs
- ▲ Debug 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 and Networking (20%)

- ▲ Demonstrate basic understanding of NetworkPolicies
- ▲ Provide and troubleshoot access to applications via services
- ▲ Use Ingress rules to expose applications