

<https://www.ituonline.com/>

Certified Kubernetes Application Developer (CKAD)

Module 1: Course Overview

- 1.1 Course Overview
- 1.2 Course PreReqs

Module 2: Kubernetes and Container Fundamentals

- 2.1 Core Concepts
- 2.2 What is the CKAD Exam
- 2.3 Why Get Certified
- 2.4 CKAD Exam Domains
- 2.5 APIs
- 2.6 Demo - Explore APIS
- 2.7 Pods
- 2.8 Whiteboard - Pod Creation Workflow
- 2.9 Create a Pod
- 2.10 Lifecycle Status
- 2.11 Inspecting Pods
- 2.12 Demo - Create a Pod and Inspect

Module 3: Configuration

- 3.1 Configuration
- 3.2 Understand Configmaps
- 3.3 Understand Security Contexts
- 3.4 Demo - Create a Security Context
- 3.5 Create and Consume Secrets
- 3.6 Understand Service Accounts
- 3.7 Demo - Create a Pod to Use a Secret
- 3.8 Demo - Define a Service Account

Module 4: Multi Container Pods

- 4.1 Multi Container Pods
- 4.2 Multi Container Pods Design and Patterns
- 4.3 Ambassador Containers
- 4.4 Connecting to Pods
- 4.5 Side Cars
- 4.6 Demo - Create an Init Container

Module 5: Observability

- 5.1 Observability
- 5.2 Container Health
- 5.3 Probes
- 5.4 Logging
- 5.5 Monitor Resources and Apps
- 5.6 Monitoring Pods
- 5.7 Demo - Monitoring and Logging

Module 6: Pod Design

- 6.1 Pod Design
- 6.2 Deployments
- 6.3 Rolling Updates
- 6.4 Pod Changes
- 6.5 Jobs and Crons
- 6.6 Labels and Annotations
- 6.7 Demo - Define and Query Labels
- 6.8 Scalability Options

Module 7: Services and Networking

- 7.1 Services and Networking
- 7.2 Understanding Networking, Routing and Services
- 7.3 Network Policies
- 7.4 Namespaces
- 7.5 Demo - Networking

Module 8: State Persistence

- 8.1 State Persistence
- 8.2 Storage Options
- 8.3 Volume Storage
- 8.4 Configure Pod Volumes
- 8.5 Configure Persistent Volumes
- 8.6 Whiteboard - Persistent Volumes

Module 9: CKA Practice Exams

- 9.1 CKAD Practice Preparation
- 9.2 Exam Prep Need to Know
- 9.3 Question 1 - Create a Pod and Inspect
- 9.4 Question 2 - Define a Pods Readiness
- 9.5 Question 3 - Create a Pod with a Secret
- 9.6 Question 4 - View Pods logs in Real Time
- 9.7 Question 5 - Define and query labels
- 9.8 Additional Questions

Module 10: Course Closeout

- 10.1 Course Closeout
- 10.2 Course Summary Review

10.3 Kubernetes Certifications

10.4 Additional Resources

10.5 Exam Review

10.6 Course Closeout