

Certified Kubernetes Application Developer (CKAD)

Course Duration : 24 Hours

Course code : CKAD

1. Course Overview

The **Certified Kubernetes Application Developer (CKAD)** course focuses on designing, building, deploying, and troubleshooting applications on Kubernetes. This course is aligned with the official CKAD certification and helps developers gain hands-on experience with Kubernetes resources, application configuration, scaling, and debugging in cloud-native environments.

2. What you'll learn?

- Kubernetes core concepts for developers
- Application deployment and configuration
- Working with Pods, Deployments, and Services
- Application scaling and updates
- ConfigMaps and Secrets
- Application troubleshooting

3. Target Audience

- Application developers
- Software engineers
- DevOps engineers
- Cloud-native developers
- IT professionals working with Kubernetes

4. Pre-Requisites

- Basic knowledge of containers and Docker
- Understanding of YAML configuration files
- Familiarity with application development concepts

5. Course Content (Modules)

Module 1: Kubernetes Basics for Developers

- Kubernetes architecture overview
- Core objects and resources

Module 2: Application Deployment

- Pods and Deployments
- Rolling updates and rollbacks

Module 3: Application Configuration

- ConfigMaps and Secrets
- Environment variables

Module 4: Services and Networking

- Service types
- Application exposure

Module 5: Application Scaling and Updates

- Horizontal scaling
- Resource management

Module 6: Troubleshooting Applications

- Debugging Pods
- Logs and monitoring