Koenig Crafted - Kubernetes for Intermediate

Duration: 2 Days

Hands-On Format: This hands-on class is approximately 80/20 lab to lecture ratio, combining engaging lecture, demos, group activities and discussions with comprehensive machine-based practical programming labs and project work.

Module 1 – Core Concepts

Overview of Container Orchestration
Introduction to Kubernetes
Kubernetes Architecture

Module 2 – Managing Resources

Managing Pods
Managing Labels & Selector
Managing Replica Set
Managing Service – ClusterIP, NodePort, LoadBalancer

Module 3 – Application Lifecycle Management

Overview of Deployment
Deployment Strategies
Managing Deployment
Blue Green Deployment

Module 4 – Storage

Volumes
Persistent Volumes
Persistent Volume Claim

Module 5 – Environment Variable

Plain Key, Config Map and Secret

Module 6 – Logging and Monitoring

Understand how to Monitor all Cluster Components
Understand how to Monitor Applications
Manage Cluster Components Logs
Manage Application Logs
Prometheus and Grafana Tool
Logging with ELK Stack

Module 7 – Networking in Kubernetes

Kubernetes Networking
Understand CNI
Configure and Manage Ingress Rule
Namespace

Module 8 – Readiness and Liveness Probe

Introduction to Readiness and Liveness Probe
Implement Readiness and Liveness in Pod