

Introduction to Docker Kubernetes and OKD

Duration: 5 days (8hrs/day)

1. Docker administration

- Introduction to Containers
- Introduction to Docker
- Downloading and Installing Docker
- Docker Essential Commands
- Docker Engine
- Understanding Docker Images
- Building Docker Images
- Storing and Retrieving Docker Images from Docker Hub
- Private Registry
- Managing Cgroups
- Building Containers from Images
- Understand Storage Plugins
- Networking Docker Containers
- Data Persistence with Volumes
- Linux Capabilities
- Creating and Managing Certificates

2. Core Concepts of Kubernetes

- Cluster Orchestration
- Looking at K8S Origination at Google
- Open Source
- Benefits
- Design Principles

3. Navigating Kubernetes Architecture

- Master/Node
- Kubectl
- Replication Controller
- Kubelet
- Kube-Proxy
- Persistent Volumes
- Etcd
- High Availability

4. Using Kubernetes Features

- Pods
- Labels
- Services
- Namespaces
- Resource Quota

5. The OKD Container Platform.

- The Role of Containers & Container Orchestration
- Introduction to OKD
- Kubernetes and OKD Architecture
- Installing CRC (Code Ready Container) for OpenShift Console

6. Introduction To Docker

- Installation of Docker
- Docker Essential Commands
- Creating Containers
- Managing Data in Docker
- Docker Networking
- Docker Repositories
- Build Images
- Docker File

7. Core Concepts of OKD

- Pods
- Services
- Replication Controllers
- Persistent Volume(PV)
- Persistent Volume Claim(PVC)
- Deployment Config
- Build Config

8. Managing OKD

- Introduction to YAML
- Creating and Managing Pods
- Init Containers
- Labels & Selector
- Managing Replication Controllers