

OCP (Red Hat OpenShift) Administration

Course GL390 3 Days Instructor-led, Hands on

This hands-on course with lab exercises will help learners to install and manage an OCP (Red Hat OpenShift) cluster. Through out the course learners will understand the benefits and purpose of the platform, how to install the cluster, explore networking concepts, understand commands, manage OpenShift resources, configure storage, manage application deployments, and administer the cluster through logging and monitoring.

This course is based on OCP 4.2 and Red Hat Enterprise Linux version 8 (RHEL8)

Prerequisites:

Learners will need a working knowledge of Linux systems administration skills or the equivalent knowledge of skills found in the GL120 - Linux Fundamentals and GL250 - Enterprise Linux Systems Administration courses. Also learners will benefit from an understanding of containerization as found in the GL340 - Docker course.

Supported Distributions:

- Red Hat Enterprise Linux 8

Course Outline

Module 1: Introduction To Red Hat OpenShift Container Platform

- About K8s
- OS, Deployment, and Scaling Benefits of Containerized Apps
- OCP Platform Overview
- RHCOS
- Key Features: OLM, Quay, SDN, auth, logs, Monitoring, Routing, Web Console, CLI
- OCP Lifecycle

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Module 2: Install OpenShift Container Platform

- Installer Provisioned Infrastructure
- User Provisioned Infrastructure
- Cloud vs. Bare Metal
- Disconnected

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Module 3: Explore Openshift Networking Concepts

- OCP DNS
- Cluster Network Operator: config, logs, status, and CRs
- DNS Operator
- Ingress Operator
- Network Policy

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Module 4: Execute Commands - CLI (OC)

- Install, Login, and Basics
- Completion and Plug-ins
- Developer Commands
- Administrator Commands

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Module 5: Manage Openshift Resources

- Pods: Create, View, Scale, Secrets, and Scheduling
- Nodes: List Status, Evacuate Nodes, Label, Taints, and Scale

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Module 6: Allocate Persistent Storage

- Concepts and Overview
- Static PV/PVC: Provision, Bind Claims, Use in Pod, Release, and Reclaim
- Dynamic: storageclasses

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Module 7: Manage Application Deployments

- Projects
- Life-Cycle
- Deployments

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Module 8: Logging

- Components
- Deploying and Upgrading
- Viewing

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Module 9: Metrics And Monitoring

- Components
- Configuring Stack
- Setting Alerts
- Examining Metrics

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