

Red Hat OpenShift Administration I: Operating a Production Cluster

Course Duration: 40 Hours

Course code DO180

1. Course Overview

Red Hat OpenShift Administration I: Operating a Production Cluster teaches the essential skills for managing and operating an OpenShift Container Platform cluster in a production environment. Participants will learn to configure, monitor, troubleshoot, and maintain OpenShift clusters effectively. The course focuses on ensuring high availability, security, and performance of containerized applications, preparing administrators to handle real-world production challenges.

2. What you'll learn?

This course is designed to enable participants to gain the skills necessary to install, configure, and manage an OpenShift Container Platform cluster for production workloads. Learners will build confidence in day-to-day administration tasks, including managing applications, configuring security, maintaining networking, and ensuring high availability and performance of the OpenShift cluster. By the end of the course, participants will have the hands-on knowledge to efficiently operate and troubleshoot an OpenShift production environment.

3. Target Audience

- Linux system administrators
- Cloud infrastructure engineers

- DevOps engineers
- IT operations professionals
- Kubernetes administrators
- Professionals preparing for the Red Hat Certified Specialist in OpenShift Administration exam

4. Pre-Requisites

Participants should have:

To get the most out of this course, participants should have a solid understanding of Linux system administration and container fundamentals. Prior experience with Kubernetes concepts will also be beneficial for smoother learning and practical application during the course.

- Red Hat System Administration II (RH134) or equivalent Linux experience (mandatory)
- Basic knowledge of containers and Docker (recommended)
- Familiarity with Kubernetes basics (helpful but not required)

5. Course content

Module 1: Introduction to OpenShift Administration

- Overview of OpenShift architecture and components
- Understanding the role of a cluster administrator
- Navigating the web console and CLI

Module 2: Access Control and Security

- Managing users and roles with RBAC
- Implementing authentication and authorization
- Securing communication with TLS

Module 3: Managing Cluster Resources

- Configuring projects and namespaces
- Controlling resource limits and quotas
- Optimizing workloads for performance

Module 4: Application Deployment and Management

- Deploying applications from images and source code
- Managing application lifecycles
- Rolling updates and rollbacks

Module 5: Monitoring and Logging

- Setting up metrics and monitoring tools
- Configuring cluster logging
- Troubleshooting common performance issues

Module 6: Networking in OpenShift

- Configuring routes and services
- Managing ingress and load balancing
- Network policies for security and isolation