Red Hat OpenShift Administration I

Create, configure, manage, and troubleshoot OpenShift clusters

Red Hat OpenShift Administration I (DO280) teaches you how to install and administer the Red Hat® OpenShift® Container Platform. This hands-on, lab-based course shows you how to install, configure, and manage OpenShift clusters and deploy sample applications to further understand how developers will use the platform.

This course is based on Red Hat® Enterprise Linux® 7.5 and Openshift Container Platform 4.2.

OpenShift is a containerized application platform that allows enterprises to manage container deployments and scale their applications using Kubernetes. OpenShift provides predefined application environments and builds upon Kubernetes to provide support for DevOps principles such as reduced time to market, infrastructure-as-code, continuous integration (CI), and continuous delivery (CD).

For course prices see here

### Audience
This course is designed for system administrators, system architects, and developers who want to install and configure Red Hat OpenShift Container Platform.

- System and Software Architects interested in understanding features and functionality of an OpenShift cluster.
- System Administrators interested in the initial establishment of a cluster.
- Cluster Operators interested in the ongoing maintenance of a cluster.
- Site Reliability Engineers interested in the ongoing maintenance and troubleshooting of a cluster.

### Prior knowledge
- Become a Red Hat Certified System Administrator, or demonstrate equivalent Red Hat Enterprise Linux system administration experience
- Complete Introduction to Containers, Kubernetes, and Red Hat OpenShift (DO180), or demonstrate equivalent experience with containers, Kubernetes, and OpenShift basics

### Course summary
- Describe the Red Hat OpenShift Container Platform cluster installation and update processes
- Troubleshoot application deployments
- Configure authentication using local users
- Control access to projects using role-based access control (RBAC)
- Configure service and container networking
- Configure pod scheduling using labels and selectors
- Limit compute resource usage
- Scale a cluster
- Monitor cluster events and alerts

### Outline for this course

**Describe the Red Hat OpenShift Container Platform**
- Learn the components of Red Hat OpenShift Container Platform and how they interact.

**Verify a Cluster**
- Verify a cluster is installed and healthy.

**Configure Authentication**
- Configure authentication with an identity provider.

**Control Access to OpenShift Resources**
- Define and apply role-based access controls and protect sensitive information with secrets.

**Configure OpenShift Networking Components**
- Identify the components of OpenShift software-defined networking and configure some of the components.

**Control Pod Scheduling**
- Control which nodes a pod runs on.
Scale an OpenShift Cluster
Control the size of an OpenShift cluster.

Perform Cluster Updates
Describe how to perform a cluster update.
Manage the Cluster with the Web Console
Manage the OpenShift cluster using the web console.

Comprehensive Review
Verify, manage, and troubleshoot an OpenShift cluster for enterprise use.