

Module Title : DO280-Red Hat OpenShift Administration I

Duration : 3 days

Overview

Red Hat OpenShift Container Platform is a key technology in Red Hat's DevOps story. Using PaaS has proven to accelerate time to market for many organizations. This course provides the knowledge to take advantage of the platform in a popular DevOps environment.

In this course, students will learn how to install and configure an instance of OpenShift Container Platform, test the instance by deploying a real world application, and manage projects/applications through hands-on labs.

Course summary

- Container concepts
- Configuring resources with the command line interface (CLI)
- Building a pod
- Enabling services for a pod
- Creating routes
- Downloading and configuring images
- Rolling back and activating deployments
- Creating custom S2I images
- Comprehensive review

Audience

This course is designed for system administrators responsible for creating Red Hat OpenShift Container Platform instances, deploying applications, creating process customizations, and managing instances and projects.

Prerequisites

Red Hat recommends these prerequisites:

- Have taken [Red Hat System Administration I](#) and [II \(RH124 and RH134\)](#), or equivalent Red Hat Enterprise Linux® system administration experience
- Have taken [Introduction to Containers, Kubernetes, and Red Hat OpenShift \(DO180\)](#) or equivalent experience
- Be certified as a [Red Hat Certified System Administrator](#), or equivalent Red Hat Enterprise Linux system administration experience

- Be certified as a [Red Hat Certified Engineer](#)

Outline

Introduction to Red Hat OpenShift Container Platform

Review features and architecture of OpenShift Container Platform.

Install OpenShift Container Platform

Install OpenShift Container Platform and configure a master and node.

Execute commands

Execute commands using the command line interface.

Build applications

Create, build, and deploy applications to an OpenShift Container Platform instance.

Persistent storage

Provision persistent storage and use it for the internal registry.

Build applications with source-to-image (S2I)

Create and build applications with S2I and templates.

Manage the system

Use OpenShift Container Platform components to manage deployed applications.

Customize OpenShift Container Platform

Customize resources and processes used by OpenShift Container Platform.

Comprehensive review

Practice and demonstrate knowledge and skills learned in the course.

Recommended next exam or course

Red Hat Certificate of Expertise in Platform-as-a-Service (EX280)

Demonstrate your ability to develop, host, and scale applications in a cloud environment using Red Hat OpenShift Container Platform.

Outcomes

Impact on the organization

This course is intended to develop the skills needed to build and deploy containerized applications that are highly available, resilient, and scalable, using Red Hat OpenShift Container Platform. Red Hat OpenShift Container Platform enables rapid application development and deployment, as well as portability of an application across environments. It also offers simplified application scaling, administration, and maintenance.

Red Hat has created this course in a way intended to benefit our customers, but each company and infrastructure is unique, and actual results or benefits may vary.

Impact on the individual

As a result of attending this course, students should understand the basic concepts of containers and the process to build and deploy applications using Red Hat OpenShift Container Platform, which combines Docker containers and container orchestration with Kubernetes.

Students should be able to demonstrate the following skills:

- Install and configure Red Hat OpenShift Container Platform on a master and node host.
- Manage a Red Hat OpenShift Container Platform instance using the command-line interface.
- Provision persistent storage to be used by the internal container image registry.
- Deploy applications to a Red Hat OpenShift Container Platform instance.
- Build applications from source code to container images using the Source-to-Image (S2I) toolkit.
- Deploy and manage multicontainer applications using the features provided by Red Hat OpenShift Container Platform.