DO180

Introduction to Containers, Kubernetes, and Red Hat OpenShift – Version 4.2

Course description

Learn to build and manage containers for deployment on a Kubernetes and Red Hat OpenShift cluster

Introduction to Containers, Kubernetes, and Red Hat OpenShift (DO180) helps you build core knowledge in managing containers through hands-on experience with containers, Kubernetes, and the Red Hat® OpenShift® Container Platform. These skills are needed for multiple roles, including developers, administrators, and site reliability engineers.

This course is based on Red Hat OpenShift Container Platform 4.2.

Course content summary

- Understand container and OpenShift architecture.
- Create containerized services.
- Manage containers and container images.
- Create custom container images.
- Deploy containerized applications on Red Hat OpenShift.
- Deploy multi-container applications.

Audience for this course

- Developers who wish to containerize software applications
- Administrators who are new to container technology and container orchestration
- Architects who are considering using container technologies in software architectures
- Site reliability engineers who are considering using Kubernetes and Red Hat OpenShift

Prerequisites for this course

- Be able to use a Linux terminal session, issue operating system commands, and be familiar with shell scripting
- Have experience with web application architectures and their corresponding technologies
- Being a Red Hat Certified System Administrator (RHCSA®) is recommended, but not required

Outline for this course

Introduce container technology

Describe how software can run in containers orchestrated by Red Hat OpenShift Container Platform.

Create containerized services

Provision a server using container technology.

Manage containers

Manipulate pre-built container images to create and manage containerized services.

Manage container images

Govern the life cycle of a container image from creation to deletion.

Create custom container images

Design and code a Docker file to build a custom container image.

Deploy containerized applications on Red Hat OpenShift

Use single container applications on Red Hat OpenShift Container Platform.

Deploy multi-container applications

Set up applications that are containerized using multiple container images.

Troubleshoot containerized applications

Regulate a containerized application deployed on Red Hat OpenShift.

Comprehensive review of curriculum

Demonstrate how to containerize a software application, test it with Podman, and deploy it on a Red Hat OpenShift cluster.

Recommended next exam or course

- Preliminary Exam in Containers, Kubernetes, & Openshift (PE180)
- Red Hat OpenShift Development I: Containerizing Applications (DO288)
- OpenShift Enterprise Administration (DO280)