

Introduction to Containers, Kubernetes and Red Hat OpenShift

Learn via: **Classroom/Virtual**

Duration: **3 Days**

Overview

Introduction to Containers, Kubernetes, and Red Hat® OpenShift (DO180) introduces building and managing Docker containers for deployment on a Kubernetes cluster. This training helps students build core knowledge and skills in managing containers through hands-on experience with Docker, Kubernetes, and Red Hat OpenShift Container Platform.

This training is based on Red Hat OpenShift Container Platform 3.5 and Red Hat Enterprise Linux® 7.

Target Audience

- 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

This training is intended to expose students to container and container orchestration technologies, such as Docker, Kubernetes, and Red Hat OpenShift. Students learn how to containerize software applications and services. Containers are rapidly becoming a deployment technology of choice in organizations adopting DevOps principles and practices. Moving applications and services from traditional deployment platforms to container deployments make the applications deployable on a single clustered cloud architecture instead of many disparate sets of hardware configurations.

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

Prerequisites

Red Hat recommends the following for this training:

- Be able to use a Linux terminal session and issue operating system commands
- Have Red Hat Certified System Administrator (RHCSA) certification or equivalent experience
- Have experience with web application architectures and their corresponding technologies

What You Will Learn

- Container, Docker, and Red Hat 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

Outline

Course introduction

Introduce and review the course.

Get started with 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-build container images to create and manage containerized services.

Manage container images

Manage 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

Deploy single container applications on Red Hat OpenShift Container Platform.

Deploy multi-container applications

Deploy applications that are containerized using multiple container images.

Troubleshoot containerized applications

Troubleshoot a containerized application deployed on Red Hat OpenShift.

Comprehensive review of Introduction to Container, Kubernetes, and Red Hat OpenShift

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