

Red Hat OpenShift Development I: Containerizing Applications

Learn via: **Classroom**

Duration: **4 Days**

Overview

In this course, you will learn how to design, build, and deploy containerized software applications on an OpenShift cluster. Whether writing container-native applications or migrating existing applications, this course provides hands-on training to boost developer productivity powered by Red Hat® OpenShift Container Platform.

Course summary

- Deploy applications from container images, Dockerfiles, and source code to an OpenShift cluster.
- Manage applications using the OpenShift web console and the OpenShift CLI.
- Inject configuration data and secrets into an application.
- Publish application container images to an external registry.
- Manage application builds and build hooks.
- Create application from templates.
- Manage application deployments.
- Monitor application health using probes.
- Migrate applications to containers and microservices.

Prerequisites

Red Hat recommends these prerequisites:

- Have completed the Introduction to Containers, Kubernetes, and Red Hat OpenShift course (DO180), or have equivalent knowledge
- Being a Red Hat Certified System Administrator or having earned a higher certification is helpful for navigation and usage of the command line, but is not required

Audience for this course

- Software developers interested in adopting containers as a preferred method for deploying applications
- Software architects interested in adopting containers as a preferred method for deploying applications

What You Will Learn

- Deploy applications to an OpenShift cluster and manage them with the command line client and the web console.
- Design and build containers for applications for successful deployment to an OpenShift cluster.
- Publish container images to an enterprise registry.
- Build containerized applications using the Source-to-Image facility.
- Create applications using OpenShift templates.
- Extract a service from a monolithic application and deploy it to the cluster as a microservice.
- Migrate applications to run on an OpenShift cluster.

Outline

Deploy and manage applications on an OpenShift cluster

Deploy an application to an OpenShift Cluster.

Design containerized applications for OpenShift

Build container images with advanced Dockerfile directives.

Publish enterprise container images

Create an enterprise registry and allow access to the OpenShift registry.

Build applications

Describe the OpenShift build process and implement post-commit build hooks.

Customize Source-to-Image builds

Customize an existing S2I base image.

Create applications from OpenShift templates

Describe the elements of an OpenShift template and create a multi-container template.

Manage application deployments

Monitor application health and select the appropriate deployment strategy.

Migrate applications to OpenShift

Integrate external services and migrate applications deployed on Red Hat JBoss Middleware.