DO288
Red Hat OpenShift Developer II: Building and Deploying Cloud-native Applications

Design, build, and deploy containerized applications on Red Hat OpenShift

Red Hat OpenShift Developer II: Building and Deploying Cloud-native Applications (DO288) teaches you how to design, build, and deploy containerized software applications on an OpenShift cluster.

Whether you are migrating existing applications or writing container-native applications, you will learn how to boost developer productivity powered by Red Hat® OpenShift, a containerized application platform that allows enterprises to manage container deployments and scale their applications using Kubernetes.

The skills you learn in this course can be applied using all versions of Red Hat OpenShift, including Red Hat OpenShift on AWS (ROSA), Azure Red Hat OpenShift (ARO), and Red Hat OpenShift Container Platform.

This course is based on Red Hat OpenShift 4.18.

Course content summary

- Features for developers in the Red Hat OpenShift web console
- Building and publishing container images for Red Hat OpenShift
- Managing container deployments on Red Hat OpenShift
- Create and deploy multi-container applications on Red Hat OpenShift
- Deploy multi-container applications using Helm Charts and Kustomize
- Create health checks to monitor and improve application reliability
- Creating CI/CD Workflows using Red Hat OpenShift Pipelines

Audience for this course

- Software developers
- Software architects

Prerequisites for this course

- Complete Red Hat OpenShift Development I: Introduction to Containers with Podman (DO188), or have equivalent knowledge.
- RHCSA or higher is helpful for navigation and usage of the command line, but it is not required.

Outline for this course

- **Red Hat OpenShift Container Platform for Developers**
  Define the Red Hat OpenShift architecture, concepts, and terminology, and set up the developer environment.

- **Deploying Simple Applications**
  Deploy simple applications by using the Red Hat OpenShift web console and command-line tools.

- **Building and Publishing Container Images**
  Build, deploy, and manage the lifecycle of container images by using a container registry.

- **Managing Red Hat OpenShift Builds**
  Describe the Red Hat OpenShift build process and build container images.

- **Managing Red Hat OpenShift Deployments**
  Describe the different Red Hat OpenShift deployment strategies and how to monitor the health of applications.

- **Deploying Multi-container Applications**
  Deploy multi-container applications by using Red Hat OpenShift templates, Helm charts, and Kustomize.

- **Continuous Deployment by using Red Hat OpenShift Pipelines**
  Implement CI/CD workflows by using Red Hat OpenShift Pipelines.

Impact on the individual

You will learn about the fundamental concepts behind containerizing, scaling, deploying, and managing applications in Red Hat OpenShift Container Platform. You will acquire these skills:

- Design container images to containerize applications.
- Different ways to build, deploy and manage containers.
- Deploy multi-container applications.
- Implement health checks to improve system reliability.
- Create and run automated pipelines for continuous delivery.