

## DO720 Container Adoption Boot Camp for Developers

### Introduction to container technology

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

### Create containerized services

Provision a service using container technology.

### Manage containers

Modify prebuilt 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 Dockerfile to build a custom container image.

### Deploy containerized applications

Deploy applications on 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 OpenShift.

### Deploy and manage applications on an OpenShift cluster

Deploy applications using various application packaging methods to an OpenShift cluster and manage their resources.

### Design containerized applications for OpenShift

Select a containerization method for an application and create a container to run on an OpenShift cluster.

### Publish enterprise container images

Create an enterprise registry and publish container images to it.

### Build applications

Describe the OpenShift build process, build triggers, and manage builds.

### Create applications from OpenShift templates

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

### Manage application deployments

Monitor application health and implement various deployment methods for cloud-native applications.

### Implement continuous integration and continuous deployment pipelines in OpenShift

Create and deploy Jenkins pipelines to facilitate continuous integration and deployment with OpenShift.

### Describe microservice architectures

Describe components and patterns of microservice-based application architectures.

### Implement a microservice with Quarkus

Deploy Red Hat OpenShift Service Mesh on OpenShift Container Platform.

### Test microservices

Implement unit and integration tests for microservices.

### Deploy microservice-based applications

Deploy Quarkus microservice applications to an OpenShift cluster.

### Build microservice applications with Quarkus

Build a persistent and configurable distributed quarkus microservices application.

### Test microservices

Implement unit and integration tests for microservices.

## Secure microservices

Secure a microservice using OAuth.

## Monitor microservices

Monitor the operation of a microservice using metrics, distributed tracing, and log aggregation.

## Introduction to Red Hat OpenShift Service Mesh

Describe the basic concepts of microservice architecture and OpenShift Service Mesh.

## Observe a service mesh

Trace and visualize an OpenShift Service Mesh with Jaeger and Kiali.

## Control service traffic

Manage and route traffic with OpenShift Service Mesh

## Release applications with OpenShift Service Mesh

Release applications with canary and mirroring release strategies.

## Test service resilience with chaos testing

Test the resiliency of an OpenShift Service Mesh with chaos testing.

## Build resilient services

Use OpenShift Service Mesh strategies to create resilient services.

## Secure an OpenShift Service Mesh

Secure and encrypt services in your application with OpenShift Service Mesh.