



#### **DESCRIPTION:**

#### **Course overview**

As a result of attending this class, students should be able to containerize simple software applications and services, deploy them with Docker, Kubernetes, and Red Hat OpenShift, test the containerized version, and troubleshoot issues with deployment.

#### **Course summary**

- 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

#### AUDIENCE AND PREREQUISITES:

#### 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

#### Prerequisites for this course

Red Hat recommends these prerequisites:

- 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

Learn the benefits of containers, Docker, Kubernetes, and Red Hat OpenShift with our free, technical overview Deploying Containerized Applications Technical Overview (DO080).



#### **OUTLINE:**

#### **Outline for this course**

#### **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.



#### **OUTCOMES:**

#### Impact of this training

#### Impact on the organization

This course is intended to develop the skills needed to create microservices architectures using OpenShift. Microservices is a new alternative to design modern applications, focused on working with less hardware resources, and therefore reducing infrastructure costs. OpenShift is a cloud solution that leverages the usage of microservices running on containers.

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

#### Impact on the individual

As a result of attending this course, students should be able to perform basic administration tasks in Red Hat OpenShift Container Platform.

Students should be able to demonstrate the following skills:

- Create containerized services using Docker
- Manage containers and container images
- Create custom container images
- Deploy containerized applications on OpenShift Container Platform
- Deploy multi-container applications



# Thank You

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