

## **DO285**

### **Containers, Kubernetes, and Red Hat OpenShift**

#### **Administration II Course overview**

Through an introduction to Docker, Kubernetes, and Red Hat OpenShift Platform, this course helps you understand one of the key tenets of the DevOps movement: continuous integration and continuous deployment. Containers have become a key technology for the configuration and deployment of applications and microservices. Kubernetes is a container orchestration platform that provides foundational services in Red Hat OpenShift Container Platform, which allows enterprises to manage container deployments and scale their applications using Kubernetes.

#### **Course outline**

##### **Describe container technology**

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

##### **Create containerized services**

Provision a server using container technology.

##### **Manage containers**

Manipulate pre-built 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 multi-container applications**

Deploy applications that are containerized using multiple container images.

## **Install OpenShift Container Platform**

Install OpenShift and configure the

cluster. **Explore OpenShift**

## **networking concepts**

Describe and explore OpenShift networking concepts.

## **Deploy containerized applications on OpenShift**

Deploy single container applications on OpenShift Container Platform.

## **Deploy multi-container applications on OpenShift**

Deploy applications that are containerized using multiple container images on an OpenShift cluster.

## **Execute commands**

Execute commands using the command-line interface.

## **Control resource access**

Control access to OpenShift

resources. **Allocate persistent**

**storage** Implement persistent

storage.

## **Manage application deployments**

Manipulate resources to manage deployed applications.

## **Install the metrics subsystem**

Install and configure the metrics gathering system.

## **Manage OpenShift Container Platform**

Manage and monitor OpenShift resources and software.