NETCAMPUS GROUP
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COURSE CODE: DO-180

Course Name: Red Hat OpenShift I: Containers & Kubernetes

DURATION	LEVEL	TECHNOLOGY	DELIVERY METHOD	TRAINING UNITS
4 Days	Introduction	OpenShift Containers & Kubernetes	Virtual Training	14

Course Description:

Red Hat OpenShift I: Containers & Kubernetes (DO180) helps you build core knowledge in managing containers through hands-on experience with containers, Kubernetes, and the Red Hat® OpenShift® Container Platform.

These skills are needed for multiple roles, including developers, administrators, and site reliability engineers.

This course is based on Red Hat OpenShift Container Platform 4.5.

Prerequisites:

- Be able to use a Linux terminal session, issue operating system commands, and be familiar with shell scripting
- Have experience with web application architectures and their corresponding technologies
- Being a Red Hat Certified System Administrator (RHCSA®) is recommended, but not required

Learning Objectives:

At the end of this course, students will be able to:

- Understand container and 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.

Target Audience:

- 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
- Site reliability engineers who are considering using Kubernetes and Red Hat OpenShift

Course Outline

Lesson 1: Introduce container technology

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

Lesson 2: Create containerized services

- Provision a server using container technology.

Lesson 3: Manage containers

- Manipulate pre-built container images to create and manage containerized services.

Lesson 4: Manage container images

- Govern the life cycle of a container image from creation to deletion.

Lesson 5: Create custom container images

- Design and code a Docker file to build a custom container image.

Lesson 6: Deploy containerized applications on Red Hat OpenShift

- Use single container applications on Red Hat OpenShift Container Platform.

Lesson 7: Deploy multi-container applications

- Set up applications that are containerized using multiple container images.

Lesson 8: Troubleshoot containerized applications

- Regulate a containerized application deployed on Red Hat OpenShift.

Lesson 9: Comprehensive review of curriculum

- Demonstrate how to containerize a software application, test it with Podman, and deploy it on a Red Hat OpenShift cluster.

Associated Exam and Certification:

This course will prepare students to take the **Red Hat Certified Specialist in Containers and Kubernetes exam EX-180.**

Successfully passing this exam will result in the attainment of the of the **Red Hat Certified Specialist in Containers and Kubernetes.**

After completing this course, students will receive a Netcampus course attendance certification.