Introduction to Containers, Kubernetes, and Red Hat OpenShift (DO180VT)

Modality: Virtual Classroom

Duration: 4 Days

SATV Value:

CLC:

NATU:

SUBSCRIPTION: No

About this course:

This course serves to be an extremely useful way of learning about containers, Kubernetes, and Red Hat OpenShift features. By taking this course, learners will be able to get adequate training in the matters of containerizing or encapsulating simple software applications and services, set them up using Docker, Kubernetes, and Red Hat OpenShift: test the encapsulated version, and troubleshoot the problems occurring with the deployment or setting up procedure.

One of the primary principles of the DevOps system is continuous integration and continuous deployment. In order to carry out these tasks, containers have become an important way of carrying them out for applications and microservices. For a Red Hat OpenShift Platform, Kubernetes serves as a useful container coordination platform.

This is a four-day duration course which is a sufficient amount of time to cover all the introductory learning on Containers, Kubernetes, and Red Hat OpenShift. However, despite being an introductory course, the difficulty level is intermediate for it. Hence, the course will be a little bit challenging for the learner.

On average, a Red Hat Software Engineer earns $87,078 per annum.

Learning Objectives:

The course has the following learning objectives:

- Gaining sound comprehension of container, Docker, and Red Hat OpenShift architect
- Having the ability to create containerized or encapsulated services
- Being able to regulate containers and container images
- Setting up or deploying containerized applications on Red Hat OpenShift
- Setting up or deploying multi-container applications

Audience:

The course has been designed for and is suitable for a number of groups. This will be beneficial for those developers who have a keen interest in and wish to containerize different software applications.

This course serves as a good beginning course, despite of its intermediate difficulty level, if one is an administrator and is new to the container technology and container coordination features, but really wants to learn about them thoroughly and begin in a really understandable manner. This course is also useful for those architects who are planning to use the container technologies in software architectures.

Requirements:

Because of its difficulty level, this course has some requirements that need to be fulfilled prior to starting your learning. Fulfilling these requirements will aid in your learning adequately. You should be able to operate a Linux terminal session and know how to issue operating system commands. You need to have the certification of Red Hat Certified System Administrator (RHCSA). In the absence of this, you should be able to prove sufficient amount of relevant experience to make up for it. Also, you should be having sufficient experience with web application architectures and their related technologies.

If you want to learn about the advantages of containers, Docker, Kubernetes, and Red Hat OpenShift, you can consult the free course, Deploying Containerized Applications Technical Overview (DO080).

Course Outline:

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-built container images to create and manage containerized services.

Manage container images

Govern 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.