DO380: Red Hat OpenShift Administration III: Scaling Kubernetes Deployments in the Enterprise

Overview   **Duration: 5 Days**

This course supports IT operations teams that are in the prepare and expand stages of their Container Adoption Journey. This course expands upon the skills required to plan, implement, and manage OpenShift® clusters in the enterprise. You will learn how to support a growing number of stakeholders, applications, and users to achieve large-scale deployments.

This course is based on Red Hat® Enterprise Linux® 8.2 and OpenShift Container Platform 4.5.

Objectives

As a result of completing this course, you should be able to understand the fundamental concepts behind containerizing, scaling, deploying, and managing applications in Red Hat OpenShift Container Platform. You will also acquire these skills:

- Design container images to containerize applicationsCu
- stomize application builds and implement post-commit build hook
- Create a multicontainer application template
- Implement health checks to improve system reliability.

Pre-requisite

Red Hat recommends these prerequisites:

- Complete the <u>DO180: Red Hat OpenShift 1 - Containers and Kubernetes</u>, or have equivalent knowledge
- Being a <u>Red Hat Certified System Administrator</u> or having earned a higher certification is helpful for navigation and usage of the command line, but is not required

Course Outline

- **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.

- **Manage building applications**

  Describe the OpenShift build process, in addition to triggering and managing builds.

- **Customize source-to-image builds**

  Customize an existing S2I base image and create a new one.

- **Create applications from OpenShift templates**

  Describe the elements of a template and create a multicontainer application template.

- **Manage application deployments**

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

- **Implement CI/CD pipelines in OpenShift**

  Create and deploy Jenkins pipelines to facilitate continuous integration and continuous deployment (CI/CD) with OpenShift.

- **Build cloud-native applications on OpenShift**

  Create and deploy cloud-native applications on OpenShift.