Openshift Platform

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Day 1

Introduction to container technology
Describe how applications run in containers orchestrated by Red Hat OpenShift
Container Platform.

Create containerized services
Provision a service using container technology.

Manage containers
Modify prebuilt container images to create and manage containerized services.

Day 2

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 applications on OpenShift Platform Container using Source-to-Image
(S2I)
 Manage storage on OpenShift

Day 3

 Statefull and stateless Application

Deploy containerized applications on OpenShift
Use OpenShift Container Platform to deploy single container applications.

Deploy multicontainer applications
Deploy applications that are containerized using multiple container images.

Day 4

Explore Red Hat OpenShift Container Platform
Describe the architecture of OpenShift Container Platform.

Verify the health of a cluster
Describe OpenShift installation methods and verify the health of a newly installed cluster.

Configure authentication and authorization
Configure authentication with the HTPasswd identity provider and assign roles to users and groups.

Day 5

Configuring application security
Restrict permissions of applications using security context constraints and protect access credentials using secrets.

Day 6

Configure OpenShift networking for applications
Troubleshoot OpenShift software-defined networking (SDN) and configure network policies.

Control pod scheduling

Control the nodes on which a pod runs.

Scale an OpenShift cluster
Control the size of an OpenShift cluster.

Day 7

Describe cluster updates
Describe how to perform a cluster update.

Manage a cluster with the web console
Use the web console to manage a Red Hat OpenShift cluster.

Execute a comprehensive review
Verify, manage, and troubleshoot an OpenShift cluster for enterprise use.

Day 8

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.

Day 9

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

Day 10

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.