Red Hat OpenShift Administration I: Operating a Production Cluster

Duration: 4 Days **Course Code: DO180** **Version: 4.14**

Overview:

Deploy, manage, and troubleshoot containerized applications running as Kubernetes workloads in OpenShift clusters.
Red Hat OpenShift Administration I: Operating a Production Cluster (DO180) prepares OpenShift cluster administrators to manage Kubernetes workloads and to collaborate with developers, DevOps engineers, system administrators, and SREs to ensure the availability of application workloads. This course focuses on managing typical end-user applications that are often accessible from a web or mobile UI and that represent most cloud-native and containerized workloads. Managing applications also includes deploying and updating their dependencies, such as databases, messaging, and authentication systems.
The skills that you learn in this course apply to all versions of OpenShift, including Red Hat OpenShift on AWS (ROSA), Azure Red Hat OpenShift, and OpenShift Container Platform.
This course is based on Red Hat OpenShift 4.14.
Following course completion, hands-on lab access will remain available for up to 45 days for any live course that includes a virtual environment.
Note: This course is offered as a four day in classroom, a five day virtual class, or self-paced.
Updated July 2025

Target Audience:

Primary: Platform Engineers, System Administrators, Cloud Administrators, and other infrastructure-related IT roles who are responsible for tier-1 support of infrastructure for applications.who are interested in managing OpenShift clusters and containerized applications. Secondary: Enterprise Architects, Site Reliability Engineers, DevOps Engineers, and other application-related IT roles who are responsible for designing infrastructure for applications.Developers and Site Reliability Engineers that are new to container technology should enroll in Red Hat OpenShift Development I: Introduction to Containers with Podman (DO188)

Objectives:

- After this course participants should be able to:
- Manage OpenShift clusters from the command-line interface and from the web console
- Deploy applications on OpenShift from container images, templates, and Kubernetes manifests
- Troubleshoot network connectivity between applications inside and outside an OpenShift cluster
- Connect Kubernetes workloads to storage for application data
- Configure Kubernetes workloads for high availability and reliability
- Manage updates to container images, settings, and Kubernetes manifests
- Participants will understand the architecture of Red Hat OpenShift clusters and of Kubernetes applications, and will be able to deploy, manage, and troubleshoot applications on OpenShift. They will also be able to identify and escalate application and infrastructure issues to development teams, operation teams, and IT vendors.

Prerequisites:

Take our free assessment https://skills.ole.redhat.com/en?partner=GKUK to gauge whether this offering is the best fit for your skills.

Prerequisite:

- Containers, Kubernetes and Red Hat OpenShift Technical Overview (DO080) or equivalent knowledge of Linux containers.
- Getting Started with Linux Fundamentals (RH104) or equivalent proficiency in using a command line interface, ideally operating a Bash shell, is required.

Testing and Certification

There is no exam associated with this course.

Follow-on-Courses:

Recommended next course or exam:

- Red Hat OpenShift Administration II: Operating a Production Kubernetes Cluster (DO280)
- Red Hat Certified OpenShift Administrator exam (EX280)
- Introduction to Red Hat OpenShift Service on AWS (CS120)
- Introduction to Microsoft Azure Red Hat OpenShift (DO121)
- DO280 - Red Hat OpenShift Administration II: Configuring a Production Cluster
- DO288 - Red Hat OpenShift Developer II: Building and Deploying Cloud-native Applications

Content:

Introduction to Kubernetes and OpenShift

Identify the main Kubernetes cluster services and OpenShift platform services, and monitor them from the web console.

Kubernetes and OpenShift Command-Line Interfaces and APIs

Access an OpenShift cluster from the command line, and query its Kubernetes API resources to assess the health of a cluster.

Run Applications as Containers and Pods

Run and troubleshoot containerized applications as unmanaged Kubernetes pods.

Deploy Managed and Networked Applications on Kubernetes

Deploy applications and expose them to network access from inside and outside a Kubernetes cluster.

Manage Storage for Application Configuration and Data

Externalize application configurations in Kubernetes resources, and provision storage volumes for persistent data files.

Configure Applications for Reliability

Configure applications to work with Kubernetes for high availability and resilience.

Manage Application Updates

Manage reproducible application updates and rollbacks of code and configurations.

Additional Information:

Official course book provided to participants.

Further Information:

For More information, or to book your course, please call us on 0800/84.009

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www.globalknowledge.com/en-be/