Introduction to Red Hat OpenShift Service on AWS (CS120)

Category: Software Development & Programming | **Vendor:** Red Hat

Duration: 16.00 hours (2 days) **13.0 CPD Hours** **Rating:** ⭐ 4.6 (5,878 reviews)

Course Information

Delivery Format:	Instructor Led - Online
Related Exam:	CS120

Course Overview

Learn how to deploy, access, and perform day-to-day operations to a ROSA cluster. This course teaches IT operations staff how to deploy a public Red Hat OpenShift Service on AWS (ROSA) cluster for experimentation and to provision projects for development teams to work within. IT operations staff will learn how to perform day-to-day operation of ROSA clusters and support application teams which use that cluster. IT operations staff can then apply the same skills and similar procedures to private ROSA clusters of their organizations.

About This Course

Learn how to deploy, access, and perform day-to-day operations to a ROSA cluster. This course teaches IT operations staff how to deploy a public Red Hat OpenShift Service on AWS (ROSA) cluster for experimentation and to provision projects for development teams to work within. IT operations staff will learn how to perform day-to-day operation of ROSA clusters and support application teams which use that cluster. IT operations staff can then apply the same skills and similar procedures to private ROSA clusters of their organizations.

Who Should Attend

- ROSA administrators
- System administrators, platform engineers, cloud engineers, other infrastructure-related IT roles who are responsible for providing and supporting infrastructure for applications deployed on AWS.
- Enterprise architects
- Application and development infrastructure professionals such as site reliability engineers and DevOps engineers.

Prerequisites & Entry Requirements

General Prerequisites:

- All students must be knowledgeable about Amazon Web Services (AWS), including operating and managing AWS compute, storage, and network resources
- For students who are new to Red Hat OpenShift, it is recommended that you learn the fundamental skills of managing Red Hat OpenShift clusters from the following courses
- ◦ Administration
  ◦ link textRed Hat OpenShift Administration II: Operating a Production Kubernetes Cluster (DO280)

Learning Outcomes

Upon successful completion of this course, participants will be able to:

Introduction to Managed OpenShift Identify prerequisites to create and deploy a ROSA cluster Access a ROSA cluster as an administrator Configure GitHub authentication Connect ROSA clusters to Red Hat cloud services Configure projects with guardrails for application teams Declarative project provisioning and configuration by using OpenShift GitOps Perform OpenShift version updates Clean AWS resources from deleted clusters

Detailed Course Outline

1 - Create Public Red Hat OpenShift Service on AWS (ROSA) Clusters

Create a Red Hat OpenShift Service on AWS (ROSA) cluster that is accessible through the internet

- Introduction to ROSA
  - Describe how ROSA clusters fit into the AWS infrastructure, the required tools to create and access ROSA clusters, and the typical deployment patterns for ROSA clusters: public, bring your own Amazon Virtual Private Cloud (VPC), and private link
- Prerequisites for ROSA Cluster Creation
  - Describe the required tools and services to create ROSA clusters. Prepare an AWS account and a management workstation to create a ROSA cluster, and verify that an AWS account meets all the prerequisites for creating a ROSA cluster
- Creating a ROSA Cluster
  - Create an internet-accessible ROSA cluster
- Accessing a ROSA Cluster as an Administrator
  - Create OpenShift cluster administrator credentials to access a managed cluster by using the OpenShift CLI, OpenShift Web Console, and Kubernetes CLI
- Connecting a ROSA Cluster to Red Hat Services
  - Connect a managed cluster to Red Hat Cloud Services

2 - Configure Projects for Application Teams

Configure projects for application teams to develop or deploy applications, and grant non-cluster administrators sufficient autonomy for their jobs and to prevent misusing a ROSA cluster and AWS services

- Configuring Identity Providers for ROSA Clusters
  - Configure an identity provider for developers to access a ROSA cluster and self-service projects to deploy unprivileged applications
- OpenShift Multi-Tenancy with Projects
  - Describe the OpenShift features that enable multi-tenancy
- Configuring Project Self-Service
  - Describe the OpenShift features that enable self-service for application teams

3 - Declarative Project Management

Automate project creation and ongoing maintenance by using OpenShift GitOps while preserving the autonomy of non-administrator users over those projects

- GitOps for Kubernetes
  - Define the fundamentals of GitOps and its use with Kubernetes clusters and applications. Describe the essential concepts of Argo CD that Red Hat OpenShift GitOps supports
- Automating ROSA Cluster Management with OpenShift GitOps
  - Describe the GitOps approach to automating OpenShift cluster management
- Drift Remediation with OpenShift GitOps
  - Describe ROSA resource reconciliation with OpenShift GitOps. Describe the OpenShift GitOps approach to remediating cluster state deviation

4 - ROSA Cluster Upgrades

Upgrade ROSA clusters with new OpenShift versions

- OpenShift Updates and Application Availability
  - Describe the OpenShift update process and how it affects application availability
  - Configuring Scheduled Cluster Upgrades Describe the process of scheduling a ROSA cluster upgrade and configuring automated y-stream upgrades

5 - Delete ROSA Clusters

Delete ROSA clusters and ensure that all of its related AWS resources are deleted

- Deleting AWS Resources from Deleted ROSA Clusters
  - Describe the process of deleting a ROSA cluster
- Deleting AWS Resources from Deleted ROSA Clusters
  - Describe scenarios that require manual deletion of AWS resources that are related to a ROSA cluster after the cluster was deleted

Frequently Asked Questions

Q: What delivery options are available for Introduction to Red Hat OpenShift Service on AWS (CS120)?

We offer multiple delivery formats:

- Live Instructor-Led Classroom Online (Virtual/Live Online)
- Traditional Instructor-Led Classroom Training (ILT)
- On-site delivery at your offices anywhere in United Kingdom
- Private dedicated courses customized for your team

Q: Which exam does this course prepare me for?

This course prepares you for the CS120 official exam. You can take this exam at any exam center across United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online wherever you are located.

Q: How many CPD hours does this course provide?

The 2-day Introduction to Red Hat OpenShift Service on AWS (CS120) course provides up to 13.0 CPD hours of structured learning. CPD certificates can be provided upon request.

Q: What is the duration of the Introduction to Red Hat OpenShift Service on AWS (CS120) training?

The training takes place over 2 day(s), with each day lasting approximately 16.00 hours including breaks for lunch and refreshments.

Q: Do you provide corporate training for Introduction to Red Hat OpenShift Service on AWS (CS120)?

Yes, we provide corporate training, dedicated training, and closed classes for Introduction to Red Hat OpenShift Service on AWS (CS120). Training can take place anywhere in United Kingdom including London, Manchester, Birmingham, Edinburgh, or live online allowing teams from across United Kingdom or internationally to attend.

Q: Why choose Nexus Human for Introduction to Red Hat OpenShift Service on AWS (CS120)?

Nexus Human is recognized as one of the leading training providers. Our trainers have won multiple awards including:

- Small Firms Best Trainer Award
- National Training Partner of the Year (Ireland) - Multiple Years
- Global Top 30 Instructor Awards (2012, 2019, 2021)
- Tech Excellence Award Nominations
- Learning Performance Institute (LPI) External Training Provider Sponsor 2024

Q: Are there any discount codes available?

Yes! Use discount code **PENPAL5** when booking your Introduction to Red Hat OpenShift Service on AWS (CS120) training. Please note that only one discount code can be used per booking and cannot be combined with other special offers.

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