Containers, Kubernetes, and Red Hat OpenShift Development II with Exam

Course code: DO296

Who is the course for Enterprise application developers who wish to containerize software applications. Developers who are new to container technology and container orchestration. Architects who are considering using container technologies in software architectures. DevOps Site reliability engineers who are considering using Kubernetes and OpenShift.What we teach you Container and OpenShift architecture Designing and Creating containerized services Managing containers and container images Creating custom container images Deploying containerized applications on OpenShift Deploying multi-container applications using Helm Charts Manage and trigger application builds using Source-to-Image (S2I) Create health checks to monitor and improve application reliability Create and deploy cloud-native applications on OpenShiftRequired skills Familiarity with the Linux command line is recommended but not required.Course outlineIntroduction and overview of container technology
Describe how containers facilitate application development.
Podman basics
Manage and run containers with Podman.
Container images
Navigate container registries to find and manage container images.
Custom container images
Build custom container images to containerize applications.
Deploy and manage applications on an OpenShift cluster
Deploy applications by using various application packaging methods on an OpenShift cluster and manage their resources.
Publish enterprise container images
Create an enterprise registry and publish container images to it.
Manage builds on OpenShift
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.
Deploy multi-container applications
Deploy multi-container applications using Helm charts and Kustomize.
Manage application deployments
Monitor application health and implement various deployment methods for cloud-native applications.
Build applications for OpenShift
Create, Deploy and Integrate third-party applications on OpenShift.
What you need to knowImpact on the organization
Containers are a key technology for the configuration and deployment of applications and microservices, and containers and OpenShift have quickly become the de facto solution for agile development and application deployment. Administrators and developers are seeking ways to improve application time-to-market for minimum viable products. This course provides the gateway to organizational and digital transformation by providing an understanding of the potential of DevOps using a container-based architecture. Orchestrated with Kubernetes and OpenShift, a container-based architecture improves application reliability and scalability, while decreasing developer overhead and facilitating continuous deployment.
Impact on the individual
As a result of attending this course, you will understand the fundamental concepts behind containerizing, scaling, deploying, and managing applications on Red Hat OpenShift Container Platform, which is a containerized application platform that allows enterprises to manage container deployments and scale their applications using Kubernetes.
You should be able to demonstrate these skills:
Design container images to containerize applications. Customize application builds and implement post-commit build hooks. Deploy multi-container applications. Implement health checks to improve system reliability.

Who is the course for

- Enterprise application developers who wish to containerize software applications.
- Developers who are new to container technology and container orchestration.
- Architects who are considering using container technologies in software architectures.

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- DevOps Site reliability engineers who are considering using Kubernetes and OpenShift.

What we teach you

- Container and OpenShift architecture
- Designing and Creating containerized services
- Managing containers and container images
- Creating custom container images
- Deploying containerized applications on OpenShift
- Deploying multi-container applications using Helm Charts
- Manage and trigger application builds using Source-to-Image (S2I)
- Create health checks to monitor and improve application reliability
- Create and deploy cloud-native applications on OpenShift

Required skills

- Familiarity with the Linux command line is recommended but not required.

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Build applications for OpenShift

Create, Deploy and Integrate third-party applications on OpenShift.

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