

DO188

Red Hat OpenShift Development I: Introduction to Containers with Podman

A developer introduction to building and managing containers with Podman for deploying applications on Red Hat OpenShift Container Platform.

Red Hat OpenShift Development I: Introduction to Containers with Podman (DO188) introduces students to building, running, and managing containers with Podman and Red Hat OpenShift. This course helps students build the core skills for developing containerized applications through hands-on experience. These skills can be applied using 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® Enterprise Linux® 8, Podman 4.2 and Red Hat OpenShift® 4.12.

Course content summary

- Introduction to containers
- Run containers with Podman CLI and Podman Desktop
- Build custom container images
- Manage container images
- Remote debugging with containers
- Basic container networking
- Persist data with containers
- Run multi-container applications
- Troubleshoot Container Deployments
- Orchestrate containers with OpenShift and Kubernetes

Audience for this course

- Developers and Site Reliability Engineers that are new to container technology.
- System administrators and platform operators who are interested in managing OpenShift clusters and containerized applications should enroll [Red Hat OpenShift Administration I: Containers & Kubernetes \(DO180\)](#).

Prerequisites for this course

- [Take our free assessment](#) gauge whether this offering is the best fit for your skills.
- Some experience with web application architectures and their corresponding technologies.
- Experience in the use of a Linux terminal session, issuing operating system commands, and familiarity with shell scripting is recommended.

Outline for this course

- **Introduction and overview of containers**
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.
- **Persisting data**
Run database containers with persistence.
- **Troubleshooting containers**
Analyze container logs and configure a remote debugger.
- **Multi-container applications with compose**
Run multi-container applications using Compose.
- **Container orchestration with Kubernetes and OpenShift**
Orchestrate containerized applications with Kubernetes and OpenShift.

As a result of attending this course, you will understand the foundations of container-based application development. You will be able to run, manage, and troubleshoot containerized applications. This course is the starting point for the OpenShift developer curriculum and provides the foundation you will need to advance to cloud-native developer courses.