Updated 05/17/2024

Sign up

Podman training

3 days (21 hours)

Presentation

Podman lets you simply find, launch, share and deploy applications without a daemon, unlike Docker. Containers can be deployed in rootless mode, so they can be administered without administrative rights.

The benefits of this technology are numerous:

- Applications are more secure: if the container engine, runtime or orchestrator is compromised, the attacker will not gain root privileges.
- Allows multiple unprivileged users to run containers on the same machine
- Allows insulation inside nested containers

Our Podman training course will introduce you to microservices and containerization. At the end of this course, you'll know how to deploy containers, manage images, use Podman in rootless mode and manage the container lifecycle.

Like all our training courses, this Podman course will introduce you to the latest version of the tool: Podman 5.0.

Objectives

- Understanding the benefits of containerization
- Deploying application containers with Podman
- Understanding and managing images
- Deploying containers in rootless mode

Target audience

Developers, Architects, System Administrators

Prerequisites

Basic knowledge of a Unix system.

Podman Training Program

Introduction

- Understanding CI/CD
- Using CI/CD pipelines
- Understanding microservices
- Why use microservices?
- Virtualization vs. containerization
- Linux container use cases

Podman presentation

- Podman architecture
- Why use Podman?
- Installation
- Configuring Podman in rootless mode
- Create your first container

Container applications

- Creating a web application container
- Creating a multi-container application
- Developing a web container
- Integrating port mapping

Podman images

- How container image management works
- The different methods
- Images and layers
- Transfer a container
- Building an image using Dockerfile
- Creating and manipulating the Dockerfile
- Store images in a private register

Container lifecycle management

- What is the life cycle of a container?
- Pods and the network
- Publication of all ports
- Publish exposed ports

- Persistent volumes
- CNI (Container Network Interface)
- Port forwarding (PAT)
- Linking containers

Podman in rootless

- How does rootless work?
- Rootless Containers and cgroup
- Check configuration
- Running a container in rootless mode
- The administrator's actions
- User actions

Further information

Ansible training

Kubernetes training

Openstack training

Advanced Kubernetes training

OpenShift training

Prometheus and Grafana training

Companies concerned

This training course is aimed at both individuals and companies, large or small, wishing to train their teams in a new advanced computer technology, or to acquire specific business knowledge or modern methods.

Positioning on entry to training

Positioning at the start of training complies with Qualiopi quality criteria. As soon as enrolment is finalized, the learner receives a self-assessment questionnaire enabling us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and objectives.

This questionnaire also enables us to anticipate any connection or internal security problems (intra-company or virtual classroom) that could be problematic for the follow-up and smooth running of the training session. This questionnaire also enables us to anticipate any connection or internal security difficulties within the company (intra-company or virtual classroom) that could be problematic for the follow-up and smooth running of the training session.

Teaching methods

Practical course: 60% Practical, 40% Theory. Training material distributed in digital format to all participants.

Organization

The course alternates theoretical input from the trainer, supported by examples, with brainstorming sessions and group work.

Validation

At the end of the session, a multiple-choice questionnaire verifies the correct acquisition of skills.

Sanction

A certificate will be issued to each trainee who completes the course.