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Sign up

Advanced Docker training

2 days (14 hours)

Advanced Docker presentation

Over the years, Docker has established itself as one of the best platforms for deploying application containers.

Mastering Docker brings many benefits, including :

- The creation of isolated and consistent environments to reduce the risk of bugs
- Savings thanks to rapid deployment
- The ability to be launched anywhere. Deployments are consistent, portable and scalable.
- Repeatability and automation of its infrastructure

With 6 million application repositories and 5 million users. Docker has become a benchmark DevOps tool.

Our advanced Docker training will teach you how to use the Docker daemon, create private registries, manage nodes and secrets. You'll also discover how to optimize security and track your metrics with Prometheus and Grafana.

As with all our training courses, this one will introduce you to the latest version of Docker (at the time of writing: Docker 24.0) and Ansible 2.4.7.

Objectives

- Mastering the Docker daemon
- Managing private registers
- Mastering node management
- Managing secrets and strengthening security
- Using Prometheus and Grafana for monitoring purposes

Target audience

Developers, Architects, System Administrators

Prerequisites

Have used Docker in a professional environment or have taken our Docker training course.

Our Advanced Docker Training Program

Managing the Docker daemon

- Manual daemon launch
- Client-server architecture configuration
- Docker daemon administration best practices
- Control the daemon with systemd
- Rest API
- Examine the storage driver
- Configuring proxy connections
- Troubleshooting

Private registers

- Understanding the register
- Deploying a server registry
- Configuring the register
- Creation of a secure register
- Using recipes
- Docker client configuration and certificates

Node management

- Update your nodes
- Restricting resources
- Automation
- Rollback service
- Health check

Managing secrets

- Introducing the secrets
- Creating a Docker secret
- Docker Secret Inspect
- Docker Secret ls/rm
- Using labels
- Keys and values

- Filtering images, containers and other objects

Optimizing safety

- Good safety practices for containers
- Network encryption
- Securing the Docker Socket
- Using security modules
- Vulnerability management
- Isolation and limitation management

Logging

- Container log presentation
- Configuring log drivers
- Using docker logs
- Using a logging driver plugin
- Customize your log driver output
- Local file logging driver

Monitoring with Prometheus and Grafana

- Docker events
- Configuring Prometheus and Grafana
- Monitoring Dameon Docker with Prometheus
- Runtime Metrics and App Metrics
- Retrieve performance data with Prometheus
- Retrieve performance data with Grafana
- Using Sysdig

Further information

Docker training

Kubernetes training

Openstack training

Advanced Kubernetes 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 registration is finalized, the learner receives a self-assessment questionnaire which enables us to assess his or her estimated level of proficiency in different types of technology, as well as his or her expectations and personal objectives for the training to come, within the limits imposed by the selected format. This questionnaire also enables us to anticipate any connection or security difficulties within the company (intra-company or virtual classroom) which 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.