Docker & Kubernetes e-learning channel

Practical course - 2d - 11h44 - Ref. 8DK
Price : 290 CHF E.T.

Nouvelle édition

La conteneurisation offre une flexibilité sans précédent dans le déploiement des applications, mais comment maximiser son potentiel tout en minimisant les risques ? Cette chaîne spécialisée sur la conteneurisation vous apprendra à libérez le potentiel des applications Docker et Kubernetes pour créer et déployer des conteneurs ou clusters.

🎯 Teaching objectives

At the end of the training, the participant will be able to:

- ✓ Understand the principles of Docker and the container approach.
- ✓ Manipulate image registry and Dockerfile files.
- ✓ Manage a network and volumes.
- ✓ Master the specifics of Docker on Windows and Docker in the cloud.
- ✓ Use Docker to continuously deploy software products.
- ✓ Implement applications composed of several microservices with Docker Compose.
- ✓ Manage a simple cluster with Swarm and Kubernetes.
- ✓ Get to grips with rolling update and monitoring.
- ✓ Setting up a cluster, from initialization to adding machines.
- ✓ Understand the principles of node promotion and demotion.
- ✓ Deploy containers on a Swarm cluster.
- ✓ Implement orchestration in a first version.
- ✓ Installing Docker on Windows 10 and Windows Server 2016.
- ✓ Handling containers under Windows.
- ✓ Manage containers with Azure tools.
- ✓ Use the Kubernetes solution and its functionalities.
- ✓ Set up a demonstration environment with Minikube.
- ✓ Deploy an application with a configuration file.
- ✓ Maintain a Kubernetes cluster in operational condition (Docker images, microservices, high availability...).
- ✓ Knowledge of tools for managing application deployment with Kubernetes (Helm, Google Container Engine).

Intended audience
IT professionals wishing to learn how to use software containers.

Prerequisites
Basic knowledge of the Linux and Windows environments.

Practical details

Digital activities
IT structure: recorded courses, expert videos and best practice sharing.

Mentoring
L'option tutorat propose un accompagnement personnalisé par un formateur référent ORSYS, expert du domaine. Adapté aux besoins, aux capacités et au rythme de chaque apprenant, ce tutorat combine un suivi asynchrone (corrections personnalisées d'exercices, échanges illimités par message…) et des échanges synchrones individuels. Bénéfice : une meilleure compréhension, le développement des compétences et un engagement durable dans la formation.

Pedagogy and practice
A wealth of content produced by trainers following a rigorous pedagogical approach. During each course, operational cases are commented on by experts to help learners put into practice what they have just learned. To help learners anchor their memory, each content item is broken down into short sequences of 3 to 10 minutes. This enables each learner to learn dynamically and independently.

Course schedule

1 Docker, getting to grips with containers

- Discovering how Docker works
- Compiling a Docker image
- Overview of Docker image production functions
- Discovering the special features of Docker on Windows
- Docker management in the cloud

2 Docker in production, clustering microservices

- Example application presentation
- Scaling with Docker Swarm
- Industrial-level coordination with Kubernetes
- Discover productivity features in Kubernetes

3 Docker Swarm, implementing the cluster and deploying containers

- Setting up a cluster
- Deploying containers on a Swarm cluster
- Standard orchestration and network management
- Advanced orchestration

4 Docker, successful implementation in a Windows environment

- Installing Docker on Windows 10
- Installing Docker on Windows Server 2016
- Handling containers under Windows
- Understanding the specific features of Windows containers
- Understanding Docker in Azure

5 Kubernetes, automating the deployment and management of applications in Pods

- Introduction to Kubernetes
- Kubernetes architecture
- The Minikube
- kubectl commands
- Namespaces