![orsys TRAINING 50 YEARS]

Course : Docker: Creating and administering your virtual application containers.

Practical course - 3d - 21h00 - Ref. DOK
Price : 2310 CHF E.T.

★★★★½ 4,6 / 5

BEST

🎯 Teaching objectives

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

- ✔ Understand where Docker and containers are used
- ✔ Work with Docker's command-line interface to create containers
- ✔ Implement and deploy applications in containers
- ✔ Administer containers

Practical details

Hands-on work
The real-world cases and hands-on work will be done in a Linux environment.

Course schedule

1 From virtualization to Docker

- Different types of vritualization.
- Containerization: LXC, namespaces, control-groups.
- Where Docker is used.
- Docker vs. virtualization.

2 Overview of Docker

- Docker's architecture.
- Docker's availability for different platforms (Windows, Mac and Linux) and how to install it on them.
- Creating a virtual machine for modeling.
- The command line and the environment.

Hands-on work
Creating a virtual machine to create a model.

(3) Command-line implementation

- Setting up your first container.
- The Docker Hub: Centralized resources.
- Pooling storage across containers.
- Pooling TCP ports across containers.
- Publishing network ports.
- Interactive mode.

Hands-on work
Configuring a container with the command line.

(4) Creating a custom container

- Producing the image of a container state.
- What is a Dockerfile?
- Automating the creation of an image.
- Implementing a container.
- Container hosting multiple services: Supervisor.

Hands-on work
Creating a custom container.

(5) Implementing a multicontainer application

- Using Docker Compose.
- Creating a YAML configuration file.
- Deploying multiple containers at once.
- Linking all of the application's containers.

Hands-on work
Implementing a multicontainer application.

(6) Administration interfaces

- The Docker API and Web Services.
- Administration interface in Web mode.
- Hosting your own registry: Docker Registry, Gitlab-CE, etc.

Hands-on work
Building and using your own registry.

(7) Administering containers in production

- Automatically starting containers on boot.
- Managing resources assigned to containers.
- Container log management.
- Backups: What tools and what strategy?

Hands-on work
Administer containers.

(8) Orchestration and clusterization

- Overview of Docker Machine.
- The orchestrator Swarm: nodes, services, secrets, configs.
- Deploying services and stacks in a Swarm.
- Reverse-proxy and load-balancer for Web Services in a cluster (Traefik, etc.).

Hands-on work

Creating a Swarm cluster. Managing nodes in the cluster. Publishing and scaling a service in the cluster.

Dates and locations

REMOTE CLASS
2026 : 9 Mar., 13 Apr., 4 May, 20 May, 10 June, 24 June, 24 June, 6 July, 10 Aug., 2 Sep., 2 Sep., 21 Sep., 12 Oct., 2 Nov., 25 Nov., 25 Nov., 16 Dec.

LAUSANNE
2026 : 10 June, 12 Oct.

GENÈVE
2026 : 10 June, 12 Oct.