

Docker training Syllabus

We discover together, how containerization could help in IT processes. First, we start by introducing the basic building blocks: images, containers, volumes and ports.

We will compare the 2 main virtualization possibilities: VM versus containers, learn about the pros and cons. The aim is to get rid of the "It was working on my machine" syndrome, which is caused by the gap between the production and development environments. Containerization also helps to lead the transformation of monolithic applications toward to microservices based architecture.

We will learn how the Twelve-Factor App methodology can be implemented with the help of containers.

1. Beginner 1 x 4 hours

- 1.1 Let's jump into a container
- 1.2 Ubuntu/Debian/Centos? Whatever you like
- 1.3 How about Alpine linux?
- 1.4 VM vs Container
- 1.5 Images are immutable
- 1.6 How to save container state?
- 1.7 Building blocks from linux: LayeringFS/chroot/namespace
- 1.8 Reproducible image with a Dockerfile
- 1.9 Webserver in 100ms
- 1.10 What is 12FactorApp manifest?
- 1.11 DockerHub: image build automation





2. Advance - Service Orchestration

- 2.1 What is docker-compose?
- 2.2 Single click LAMP
- 2.3 Wordpress in 1 minute
- 2.4 Service orchestration
- 2.5 Docker-Swarm
- 2.6 Central log handling
- 2.7 Central monitoring
- 2.8 Blue-green deployment
- 2.9 Upgrade/Downgrade

3. Customizable optional material depending on knowledge level and client needs 1 x 4 hours