



Official Docker: CN100 - Docker Containerization Essentials

Duration 1 day(s) (DOCKER-CN100)

Begin your containerization journey with the Docker engine

Official Training



Description

In this course, you'll learn how to create and manage individual containers using the Docker Engine. We'll cover best practices in container image design and container deployment and auditing, as well as an introduction to single-node container networking and storage. This course is best practices focused, and is designed to enable rapid successful adoption of containerization from first principles.

Goals

By the end of this course, you should be able to:

- Manage the complete lifecycle of a container
- Interrogate containers for state and configuration information
- Build container images according to performance and security best practices
- Manage basic external storage for a container
- Use basic container networking on a single host.

Public

This course is targeted at students with the following:

- **Motivations:** Begin creating high performance containers for new or existing applications
- **Roles:** General technical audiences & IT professionals

Prerequisites

- Familiarity with the bash shell
 - Filesystem navigation and manipulation
 - Command line text editors like vim or nano
 - Common tooling like curl, wget and ping

Structure

40% Theory, 60% Practice

Program

- Introducing docker
 - Containerization motivations and implementation
- Containerization fundamentals
 - Container implementation from the Linux kernel
 - Container lifecycle details
 - Core container creation, auditing and management CLI
- Creating images
 - Layered filesystem implementation and performance implications
 - Creating images with Dockerfiles
 - Optimising image builds with multi-stage builds and image design best practices
- Docker volumes
 - Docker volume creation and management
- Docker networking basics
 - Docker native networking model
 - Software defined networks for containers
 - Docker-native single-host service discovery and routing