

Containers Fundamentals

Learn to build, manage and secure Docker containers, covering images, storage, networking and basic Kubernetes concepts.

3 Days

8 HOURS A DAY

8

MODULES

30

TOPICS

COURSE OVERVIEW

This course compares virtualization with containers and introduces Docker installation and architecture. It covers creating and managing containers, building and tagging images, and working with private registries. It then examines container storage with volumes and bind mounts, networking with bridge, host and none drivers, and securing containers through Linux capabilities. The course closes with an introduction to Kubernetes architecture and basic resources such as Pods, Replica Sets and Cluster IP Services.

WHO THIS COURSE IS FOR

Container Administrators

System Administrators

DevOps Engineers

Infrastructure Engineers

Kubernetes Beginners

LEARNING OBJECTIVES

- Compare virtualization and container architectures
- Install and configure Docker on a host system
- Create, start, stop and remove containers
- Build Docker images using Dockerfile and Docker Commit
- Tag, push and pull images with a private registry
- Manage container storage using volumes and bind mounts
- Configure container networking with bridge, host and none drivers
- Apply Linux capabilities to secure containers

8 Modules, 30 Topics

01

Virtualization vs Containers

TOPICS

What is Virtualization · What is Container ·
Virtualization vs Container Architecture

02

Docker Installation and Architecture

TOPICS

Configure Repository for Docker · Installing Docker ·
Understanding Docker Architecture

03

Managing Containers

TOPICS

- Creating/Deleting Container
- Container Operations like start, stop and exec
- Port Mapping

04

Image Operations

TOPICS

Creating a Docker Image using Docker Commit ·
Building a Dockerfile · Tagging an Image · Pull and
Push Image · Creating Private Registry

05

Storage

TOPICS

Storage Overview · Creating and Managing Volumes ·
Using Bind Mounts

06

Networking

TOPICS

- Overview of Container Networking
- Introduction to Bridge Network Driver
- Managing Network Bridges
- Introduction to Host Network Driver
- Create Container with Host Network Driver
- Introduction to None Network Driver
- Create Container with None Network Driver

07

Container Security

TOPICS

Understanding Linux Capabilities · Managing Containers Linux Capabilities

08

Kubernetes Basics

TOPICS

- What is Kubernetes
- Need of Kubernetes
- Kubernetes Architecture
- Managing Basic Resources like Pod, Replica Set and Cluster IP Service

WHAT IS INCLUDED

Everything You Need to Succeed

- Koenig course material for every module
- Hands-on exercises throughout the course
- Delivery by certified instructors and subject matter experts
- Course completion certificate from Koenig

Who We Are

Established in 1993, Koenig Solutions is a globally recognised training provider with 35+ technology partnerships, 5,000+ training programmes and a network of certified instructors and subject matter experts, supporting individuals and enterprise teams worldwide.

Learn the Way That Suits You

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Live Online Classes (ILO)

Fly-Me-A-Trainer (FMAT)

Flexi (Self-Paced)

1-on-1 Training

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