

Docker Administration with Linux Fundamentals (Comprehensive)

Learn to administer Linux systems and Docker containers, from basic commands to custom images, storage and networking.

3 Days

DURATION

6

MODULES

33

TOPICS

COURSE OVERVIEW

This course begins with Linux fundamentals, covering basic commands, the file system structure, file and directory management, the VIM editor, user administration, permissions and service and package management. It then introduces Docker, its architecture and components, before moving into client operations such as running, managing and executing commands in containers. Further modules cover building custom images with Dockerfiles, tagging, pushing and pulling images and working with private registries, followed by a deeper look at cgroups, namespaces and resource limits. The course concludes with container storage, including volumes, bind mounts and tmpfs, and container networking using bridges.

WHO THIS COURSE IS FOR

Beginners on container technology

LEARNING OBJECTIVES

- Explain basic Linux commands and file system structure
- Manage users, permissions and services on Linux
- Install and update software packages with YUM
- Describe Docker architecture and its core components
- Run and manage containers using Docker client operations
- Build custom images using Dockerfiles and Docker commit
- Push and pull images with private registries
- Configure container storage using volumes, bind mounts and tmpfs

TRAINING APPROACH

This hands-on class is approximately 80/20 lab to lecture ratio, combining engaging lecture, demos, group activities and discussions with comprehensive machine-based practical programming labs and project work.

6 Modules, 33 Topics

01

Linux Fundamentals

TOPICS

- What is Linux
- Basic Linux Commands
- Understanding Linux File System Structure
- Creating Files and Directories
- Copying Files and Directories
- Basics of VIM Editor
- Managing Users
- Understand Linux File System Permissions
- Changing Permissions
- Managing Services
- Installing and Updating Software Packages with YUM

02

Installation of Docker

TOPICS

- Introduction to Docker
- Docker Architecture
- **Docker Components:** Docker Client, Docker Host and Docker Registry
- Installation of Docker

03

Docker Client Operations

TOPICS

Running a Container · Container Lifecycle · Managing Containers · Executing Commands in Running Containers

04

Building Custom Images and Docker Registry

TOPICS

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

05

Container Deep Dive

TOPICS

Cgroups · Namespaces · Container Resource Limits

06

Storage & Container Networking

TOPICS

Storage Overview · Creating and Managing Volumes · Using Bind Mounts · Using tmpfs · Overview of Container Networking · Managing Network Bridges

WHAT IS INCLUDED

Everything You Need to Succeed

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

ABOUT 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.

FLEXIBLE DELIVERY

Learn the Way That Suits You

Classroom Training

Live Online Classes (ILO)

Fly-Me-A-Trainer (FMAT)

Flexi (Self-Paced)

1-on-1 Training

Ready to Get Started?

Talk to a learning advisor about schedules, group training and customised delivery.

Visit koenig-solutions.com

✉ info@koenig-solutions.com