

DevOps Basics: Git, Docker, Ansible & Jenkins

Learn to manage source code with Git, containerize applications with Docker, automate configuration with Ansible, and build CI/CD pipelines with Jenkins.

5 Days

8 HOURS A DAY

4

MODULES

13

TOPICS

30

HANDS-ON LABS

COURSE OVERVIEW

This course aim to equip learners with the knowledge and basic practical skills needed to proficiently utilize Git, Docker, Ansible, and Jenkins.

WHO THIS COURSE IS FOR

DevOps Engineers

System Administrators

Software Developers

Release Managers

Infrastructure Engineers

PREREQUISITES

- Introduction to Linux environment.

TOOLS AND REQUIREMENTS

- Git Version: Latest
- Docker Version: Latest
- Ansible Version: Latest Open Source
- Jenkins Version: Latest
- Lab Requirement: Koenig DC (CentOS 9)

LEARNING OBJECTIVES

- Explain version control concepts and the history of Git
- Apply basic Git commands to manage repositories and branches
- Describe Docker Engine and container fundamentals
- Build and manage Docker images using Dockerfile and commit
- Configure container networking and data persistence with volumes
- Explain Ansible architecture and automation concepts
- Develop Ansible playbooks using variables, loops and roles
- Implement CI/CD pipelines in Jenkins integrated with Ansible

4 Modules, 13 Topics

01

7 Labs

Git

TOPICS

Introduction to Version Control System · History of Git · Git Basics · States in Git

02

9 Labs

Docker

TOPICS

Introduction to Containers · Introduction to Docker · Docker Engine

03

8 Labs

Automation with Ansible

TOPICS

Introduction to Ansible · Ansible Architecture

04

6 Labs

Jenkins

TOPICS

Introduction to CI and CD · Introduction to Jenkins · Jenkins Process · Jenkins User Interface

Practise What You Learn

#	MODULE	ACTIVITY
01	Git	■ Installing Git ■ Configuration of Git ■ Working with Repositories ■ Basic Git Commands ■ Working with Remotes ■ Tagging ■ Git Branching
02	Docker	■ Downloading and Installing Docker ■ Docker Essential Commands ■ Running your First Container ■ Docker Image with Docker Commit ■ Build Image with Dockerfile ■ Private Registry ■ Storing and Retrieving Docker Images from Docker Hub ■ Networking Docker Containers - Bridge, Host and None ■ Data Persistence with Volumes - Temporary (Default), Volumes and BindMounts
03	Automation with Ansible	■ Installation and Configure Ansible ■ AD-Hoc Commands ■ Managing Playbooks ■ Managing Variables ■ Managing Loops ■ Ansible Vault ■ Jinja2 Templates ■ Managing Roles
04	Jenkins	■ Jenkins Installation ■ Build First Job: Deploy Web Server Automatically on Jenkins Machine ■ Add Remote Machines and Credentials ■ Deploy Web Server Automatically on Remote Machine ■ Add Parameters in Jenkins ■ Integrate Jenkins with Ansible

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.

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