

Fundamentals of Linux

Learn to navigate, administer and secure Linux systems, from basic commands and shell scripting to networking and system monitoring.

4 Days

DURATION

12

MODULES

35

TOPICS

COURSE OVERVIEW

This course introduces Linux fundamentals, covering its history, distributions, installation and basic command structure, along with file system navigation and manipulation. It then addresses user management, file permissions and ownership, and introduces shell scripting. Further sessions cover package management, system monitoring, performance troubleshooting and networking basics. The final sessions explore advanced file system features, security basics such as firewalls, SSH and encryption, concluding with a hands-on project applying the skills covered.

WHO THIS COURSE IS FOR

System Administrators

Linux Beginners

IT Support Staff

Network Administrators

DevOps Engineers

LEARNING OBJECTIVES

- Describe the history, evolution and distributions of Linux
- Apply basic commands to navigate and manipulate file systems
- Manage user accounts, groups and password policies
- Configure file permissions and ownership
- Write and execute simple shell scripts
- Apply package managers to install and update software
- Analyse system resource usage and troubleshoot basic issues
- Configure basic networking and apply security measures such as SSH

12 Modules, 35 Topics

DAY 1 Introduction to Linux and Basic Commands

01

Session 1: Introduction to Linux

TOPICS

Overview of Linux · History and Evolution ·
Linux Distributions

02

Session 2: Getting Started with Linux

TOPICS

Installing Linux (Hands-on) · Accessing the Terminal ·
Basic Command Structure

03

Session 3: File System Navigation and Manipulation

TOPICS

Understanding File Systems · Navigating Directories · Basic File and Directory Operations

DAY 2 Users, Permissions, and Shell Scripting

04

Session 4: User Management

TOPICS

User Accounts and Groups · Adding and Managing
Users · Password Management

05

Session 5: Permissions and Ownership

TOPICS

Understanding File Permissions · Changing
Permissions · Ownership and Group Management

06

Session 6: Introduction to Shell Scripting

TOPICS

Basics of Shell Scripts · Writing Simple Scripts · Executing Scripts

07

Session 7: Package Management

TOPICS

Package Managers Overview · Installing and Removing Software · Updating the System

08

Session 8: System Monitoring and Performance

TOPICS

Basic System Monitoring Tools · Resource Usage Analysis · Troubleshooting Basics

09

Session 9: Networking Basics

TOPICS

Network Configuration · Basic Networking Commands · Troubleshooting Network Issues

10

Session 10: Advanced File System Features

TOPICS

Symbolic Links · Disk Quotas · Filesystem Hierarchy Standard (FHS)

11

Session 11: Security Basics

TOPICS

Firewalls and Security Policies · Secure Shell (SSH) · Introduction to Encryption

12

Session 12: Final Project and Review

TOPICS

Recap of Key Concepts · Hands-on Project: Applying Linux Skills

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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