KOENIG SOLUTIONS · COURSE OUTLINE

CentOS 8 Linux Administration

Learn to install, configure and administer CentOS Linux 8, from file management and permissions to networking and storage.

6 Days	13	53	13
DURATION	MODULES	TOPICS	HANDS-ON LABS

COURSE OVERVIEW

This course covers installing CentOS Linux 8 and working with essential shell, file management and text processing tools. It then addresses connecting to systems, managing users, groups and permissions, and controlling processes and systemd units. Logging configuration, networking setup, software package management with yum and rpm, and storage management with partitions, SWAP and Stratis complete the coverage.

WHO THIS COURSE IS FOR

Linux Administrators | **System Administrators** | **IT Support Engineers** | **Infrastructure Engineers** | **Network Administrators**

LEARNING OBJECTIVES

- Install CentOS Linux 8 using a manual installation process
- Apply essential shell tools and the vim editor
- Manage files, archives and the file system hierarchy
- Analyse text files using regular expressions and grep
- Configure SSH connections with key-based authentication
- Manage user accounts, groups and file permissions
- Configure systemd units, logging and network settings
- Manage software packages and storage with partitions and Stratis

COURSE SYLLABUS

13 Modules, 53 Topics

01 Lab

Installing CentOS Linux 8

TOPICS

Preparing to Install CentOS Linux 8 · Performing a Manual Installation

02 Lab

Using Essential Tools

TOPICS

Basic Shell Skills · Editing Files with vim · Understanding the Shell Environment · Finding Help

03 Lab

Essential File Management Tools

TOPICS

Working with the File System Hierarchy · Managing Files · Using Links · Working with Archives and Compressed Files

04 Lab

Working with Text Files

TOPICS

- Using Common Text File–Related Tools
- A Primer to Using Regular Expressions
- Using grep to Analyze Text
- Working with Other Useful Text Processing Utilities

05 Lab

Connecting to CentOS Linux 8

TOPICS

- Working on Local Consoles
- Using SSH and Related Utilities
- Configuring Key-Based Authentication with Passphrases

06 Lab

User and Group Management

TOPICS

Different User Types · Managing User Accounts · Creating and Managing Group Accounts

07 Lab

Permissions Management

TOPICS

Managing File Ownership · Managing Basic Permissions · Managing Advanced Permissions · Managing ACLs · Setting Default Permissions with umask · Working with User-Extended Attributes

08 Lab

Managing Processes

TOPICS

- Introduction to Process Management
- Managing Shell Jobs
- Using Common Command-Line Tools for Process Management
- Using top to Manage Processes
- Using tuned to Optimize Performance

09 Lab

Working with Systemd

TOPICS

Understanding Systemd · Managing Units Through Systemd

10 Lab

Configuring Logging

TOPICS

Understanding System Logging · Configuring rsyslogd · Rotating Log Files · Working with journald

11 Lab

Configuring Networking

TOPICS

- Networking Fundamentals
- Managing Network Addresses and Interfaces
- Validating Network Configuration
- Configuring Network Configuration with nmtui and nmcli
- Setting Up Hostname and Name Resolution
- Understanding Local Time

12 Lab

Operating Running Systems

TOPICS

Foundation Topics · Managing Software Packages with yum · Using yum · Managing Package Module Streams · Managing Software Packages with rpm

13 Lab

Managing Storage

TOPICS

Introduction to Partition · FDISK vs Parted · Creating and Managing Partitions · Creating and Managing SWAP partition · Managing Stratis

HANDS-ON LABS

Practise What You Learn

#	MODULE	ACTIVITY
01	**Installing CentOS Linux 8**	Installing CentOS Linux 8
02	**Using Essential Tools**	Using Essential Tools
03	**Essential File Management Tools**	Essential File Management Tools
04	**Working with Text Files**	Working with Text Files
05	**Connecting to CentOS Linux 8**	Connecting to CentOS Linux 8
06	**User and Group Management**	User and Group Management
07	**Permissions Management**	Permissions Management
08	**Managing Processes**	Managing Processes
09	**Working with Systemd**	Working with Systemd
10	**Configuring Logging**	Configuring Logging
11	**Configuring Networking**	Configuring Networking
12	**Operating Running Systems**	Operating Running Systems
13	**Managing Storage**	Managing Storage

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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