

# CompTIA Linux+ (Exam XK0-005)

#### **Duration: 5 Days**

#### **Prerequisites:**

To ensure your success in this course, you should have at least 12 months of handson experience working with Linux servers. CompTIA A+, Network+, and Server+ certifications, or the equivalent knowledge, are strongly recommended.

## **Course Description:**

This course can benefit you in two ways. If you intend to pass the CompTIA Linux+ (Exam XK0-005) certification examination, this course can be a significant part of your preparation. But certification is not the only key to professional success in the field of systems administration. Today's job market demands individuals with demonstrable skills, and the information and activities in this course can help you build your sysadmin skill set so that you can confidently perform your duties in any intermediate-level Linux systems administration role.

## **Course Objectives:**

On course completion, you will be able to do the following:

- Configure, manage, and troubleshoot Linux systems.
- Operate Linux in both on-premises and cloud-based server environments.
- Implement security best practices.
- Use scripting, containerization, and automation to optimize a Linux system.

## **Intended Audience:**

The Official CompTIA Linux+ (Exam XK0-005) is the primary course you will need to take if your job responsibilities include Linux system administration, installation, and security within your organization. You can take this course to prepare for the CompTIA Linux+ (Exam XK0-005) certification examination.

## **Course Outlines:**

## **Lesson 1: Introducing Linux**

- Identify Linux Characteristics
- Understand Bash Interaction with Linux
- · Use Help in Linux
- Identify the Linux Troubleshooting Methodology

## **Lesson 2: Administering Users and Groups**

- Manage User Accounts
- Manage Group Accounts
- Configure Privilege Escalation
- Troubleshoot User and Group Issues

# **Lesson 3: Configuring Permissions**

- Configure Standard Linux Permissions
- Configure Special Linux Permissions
- Configure Access Control Lists

# Lesson 4: Implementing File Management

- Understand the Linux File System
- Use File Management Commands
- Find File Locations

## **Lesson 5: Authoring Text Files**

- Edit Text Files
- Manage Text Files

#### **Lesson 6: Managing Software**

- Understand Software Management
- Manage RPM Software Packages and Repositories
- Manage Debian-based Software Packages and Repositories
- Compile from Source Code
- Acquire Software
- Run Software in a Sandbox

## **Lesson 7: Administering Storage**

- Understand Storage
- Deploy Storage
- Manage Other Storage Options
- Troubleshoot Storage

## Lesson 8: Managing Devices, Processes, Memory, and the Kernel

- Gather Hardware Information
- Manage Processes
- Manage Memory
- Manage the Linux Kernel

#### **Lesson 9: Managing Services**

- Manage System Services
- Configure Common System Services
- Configure Localization Settings

#### **Lesson 10: Configuring Network Settings**

- Understand Network Fundamentals
- Manage Network Settings
- Configure Remote Administrative Access
- Troubleshoot the Network

## **Lesson 11: Configuring Network Security**

- Configure the Firewall
- Monitor Network Traffic
- Managing Linux Security
  Harden a Linux System
- Harden a Linux System
- Manage Certificates
- Understand Authentication
- Configure SELinux or AppArmor

### **Lesson 13: Implementing Simple Scripts**

- Understand Bash Scripting Basics
- Use Shell Script Elements
- Implement Scripts with Logical Controls

# Lesson 14: Using Infrastructure as Code

- Understand Infrastructure as Code
- Implement Orchestration
- Manage Version Control with Git

#### **Lesson 15: Managing Containers in Linux**

- Understand Containers
- Deploy Containers
- Understand Virtualization Concepts

## Lesson 16: Installing Linux

- The Linux Boot Process
- Modify Boot Settings
- Deploy Linux