CompTIA Linux + (Exam XK0-005), Videos & Skill Labs Set

Course Specifications

Course Number: ACI77-008VL_rev1.0
Video and Lab Length: Approximately 41 hours, 39 minutes

Course Introduction

Linux + introduces learners to Linux, an open-source operating system which is available to anyone seeking an alternative to mainstream operating systems. This course will cover Linux fundamentals such as; installing and configuring Linux, securing Linux, managing files and directories, configuring storage, scripting, containers, automating tasks, networking, and troubleshooting Linux. These topics are presented in a distribution agnostic manner which is suitable for all distributions of Linux. This course will prepare learners to pass the CompTIA, Linux + certification exam and prepare them to support Linux in the workplace.

Video Enhanced Learning

(17h 39m * 11 Modules * 54 Episodes)

We've enhanced select lab sets with targeted video content to strengthen student readiness and improve lab success. With focused video learning, students get reinforcement of core concepts before they enter the lab, giving them the confidence and context needed to apply skills effectively. Support diverse learning styles, improve lab readiness, and drive stronger outcomes across today's most in-demand skills.

Video Topics

1. Overview
2. What is Linux?
3. Linux Distributions
4. Installing Linux
5. Using a Terminal in Linux
6. Linux Command Line Interface (CLI)
7. Getting Help in Linux
8. Installing and Managing Software with DNF
9. Supporting Sandboxed Applications
10. Installing and Managing Software with APT

11. Building Applications from Source
12. Navigating the Linux File System
13. Working with Files
14. Locating Files
15. Searching with grep
16. Working with Regular Expressions
17. Working with File Archives
18. Super User Privileges
19. Managing Users
20. Managing Accounts
21. Managing Groups
22. Working with File Permissions
23. Advanced File Permissions
24. Localizing Linux
25. Troubleshooting Linux Performance
26. Basic Linux Storage Concepts
27. Creating Partitions and Volumes
28. Creating File Systems
29. Mounting File Systems
30. Linux Filesystem Hierarchy Standard
31. Logical Volume Manager (LVM)
32. Troubleshooting Disk Access
33. Troubleshooting Disk Performance
34. Creating and Executing a Script
35. Controlling Input and Output
36. Using Programming Constructs
37. Introduction to Containers
38. Automating Containers
39. Automating Hosts
40. Change Management with Git
41. Basic Linux Boot Process
42. Exploring the Linux Kernel
43. Troubleshooting the Linux Boot Process
44. Configuring a Network Adapter

45. Configuring Name Lookups
46. Network Troubleshooting
47. Copying Files Across a Network
48. Accessing Servers with Secure Shell (SSH)
49. Securing RHEL with SELinux
50. Securing Ubuntu with AppArmor
51. Configuring a Linux Firewall
52. Certificate Based Authentication with SSH
53. Securing a Web Server with SSL
54. Alternative Authentication Methods in Linux

Skill Labs

(24h * 24 Labs)

A **skills lab** is a guided, hands-on learning environment that allows students to practice real-world tasks in a safe, virtual setting. Instead of simply reading or watching videos, learners actively do the work—navigating realistic scenarios, applying concepts, troubleshooting issues, and building confidence through practical experience. This ensures that theory becomes usable skill. Skill labs are essential for developing true workplace readiness because they mirror real systems, tools, and challenges, helping learners bridge the gap between knowledge and performance. By completing a skills lab, students gain the hands-on competence employers expect and are better prepared for both assessments and real job responsibilities.

Skill Labs Topics

1. Introduction to Linux
2. File and Directory Management in Linux
3. Editing Files in Linux
4. Access Control Utilities
5. Linux Backup and File Compression Concepts
6. Package Management and Updating Linux Devices
7. Linux Identity Management
8. Elevated User Privilege Management
9. Remote Connectivity Management
10. Managing Processes in Linux
11. Managing & Configuring Linux System Services
12. Storage Management Concepts

13. Logical Volume Manager Commands
14. Managing Linux Shared Storage
15. Linux Scripting Techniques
16. Container Creation & Management
17. Versioning Control using GIT
18. Configuring Networking in Linux
19. Name Resolution Concepts & Tools
20. Remote Access Tools
21. Securing Linux Devices
22. Configuring Linux Firewalls
23. Certificate Configuration & Management
24. Authentication Methods