



COMPLETE COMPUTING, INC.

CompTIA® Linux+™ Powered by LPI (Exams LX0-103 and LX0-104)

Course length: 5 day(s)

Course Description

Overview:

The *CompTIA® Linux+™ Powered by LPI (Exams LX0-103 and LX0-104)* course, developed to cover CompTIA Powered by LPI exams LX0-103 and LX0-104, builds on your existing user-level knowledge and experience with the Linux operating system to present fundamental skills and concepts that you will use on the job in any type of Linux career.

This course can benefit you in two ways. If your job duties include Linux troubleshooting, installation, or maintenance, or if you are preparing for any type of Linux-related career, it provides the background knowledge and skills you will require to be successful. In addition, it assists you if you are preparing to take the CompTIA® Linux+™ Powered by LPI exams (Exam Codes: LX0-103 and LX0-104), in order to become a CompTIA® Linux+™ Certified Professional.

Course Objectives:

In this course, you will administer Linux.

You will:

- Identify basic Linux concepts and perform basic Linux tasks.
- Manage user and group accounts.
- Manage partitions and the Linux filesystem.
- Manage various files in Linux.
- Work with Linux permissions and ownership.
- Print files.
- Manage packages.
- Manage kernel services.
- Work with the Bash shell and shell scripts.
- Manage jobs and processes.
- Manage system services.
- Configure network services.
- Configure basic Internet services.
- Implement measures to secure a Linux system.
- Manage hardware associated with Linux systems.
- Troubleshoot Linux system issues.
- Install the Linux operating system.
- Configure the GUI.



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Prerequisites:

To ensure your success, we recommend you first take the following courses or have equivalent knowledge:

- *UNIX and Linux: Fundamentals*
- *UNIX and Linux: Advanced User*
- *CompTIA® A+®: A Comprehensive Approach (Exams 220-801 and 220-802)* (helpful, but not required)

Course Content

Lesson 1: Performing Basic Linux Tasks

Topic A: Identify the History and Development of Linux

Topic B: Enter Shell Commands

Topic C: Get Help Using Linux

Topic D: Start and Stop Linux

Lesson 2: Managing User and Group Accounts

Topic A: Create User and Group Accounts

Topic B: Configure User Profiles

Topic C: Administer User and Group Accounts

Lesson 3: Managing Partitions and the Linux Filesystem

Topic A: Create Partitions

Topic B: Navigate Through the Linux Filesystem

Topic C: Manage the Filesystem

Topic D: Maintain the Filesystem

Lesson 4: Managing Files in Linux

Topic A: Create and Edit Text Files

Topic B: Locate Files

Topic C: Search Text Using Regular Expressions

Topic D: Apply Filters to Text Streams

Topic E: Link Files

Topic F: Back Up and Restore Files

Topic G: Manage Databases Using MariaDB

Lesson 5: Managing Linux Permissions and Ownership

Topic A: Modify File and Directory Permissions

Topic B: Modify Default Permissions

Topic C: Modify File and Directory Ownership

Topic D: Set Special Permissions and Attributes



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Lesson 6: Printing Files

Topic A: Configure a Local Printer

Topic B: Print Files

Topic C: Configure Remote Printing

Lesson 7: Managing Packages

Topic A: Manage Packages Using RPM

Topic B: Verify Packages

Topic C: Upgrade Packages

Topic D: Configure Repositories

Topic E: Manage Packages Using YUM

Topic F: Advanced Package and Application Management

Lesson 8: Managing Kernel Services

Topic A: Explore the Linux Kernel

Topic B: Customize Kernel Modules

Topic C: Create an initrd Image

Topic D: Manage Device Drivers and Hardware Devices

Topic E: Monitor Processes and Resources

Lesson 9: Working with the Bash Shell and Shell Scripts

Topic A: Perform Basic Bash Shell Operations

Topic B: Write a Bash Shell Script

Topic C: Customize the Bash Shell

Topic D: Redirect Standard Input and Output

Topic E: Use Control Statements in Shell Scripts

Lesson 10: Managing Jobs and Processes

Topic A: Manage Jobs and Background Processes

Topic B: Manage Processes Using the Process Table

Topic C: Delay and Detach Jobs

Topic D: Schedule Jobs

Topic E: Maintain the System Time

Lesson 11: Managing System Services

Topic A: Configure System Services

Topic B: Monitor System Logs

Topic C: Configure Security-Enhanced Linux (SELinux)

Lesson 12: Configuring Network Services

Topic A: Connect to a Network

Topic B: Configure Routes

Topic C: Configure Client Network Services

Topic D: Manage Remote Network Systems



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Lesson 13: Configuring Basic Internet Services

Topic A: Configure Email Services

Topic B: Control Internet Services

Lesson 14: Securing Linux

Topic A: Implement Basic System Security

Topic B: Secure User Accounts

Lesson 15: Managing Hardware

Topic A: Identify Common Hardware Components and Resources

Topic B: Configure Removable Hardware

Topic C: Configure Disk Quotas

Lesson 16: Troubleshooting Linux Systems

Topic A: Troubleshoot System-Based Issues

Topic B: Troubleshoot Hardware Issues

Topic C: Troubleshoot Network Connection and Security Issues

Lesson 17: Installing Linux

Topic A: Prepare for Installation

Topic B: The Linux Boot Process

Topic C: Configure GRUB

Topic D: Install the Operating System

Lesson 18: Configuring the GUI

Topic A: Implement X

Topic B: Customize the Display Manager

Topic C: Enable Accessibility Settings in Linux

Appendix A: Mapping Course Content to the CompTIA® Linux+™ Powered by LPI (Exams LX0-103 and LX0-104) Exam Objectives

Appendix B: Syntax

Appendix C: Additional Security Topics