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## CompTIA Linux+ Certification Training Course (LX0-101 + LX0-102)

<b>Course Number:</b>	#MDTS-103
<b>Course Length:</b>	5 days
<b>Number of Exams:</b>	2
<b>Certifications:</b>	CompTIA Linux+ Powered by LPI LPIC-1

**Exam: LX0-101 and LX0-102** - In this course you will acquire the skills needed to install and support one or more distributions of the Linux operating system and learn information and skills that will be helpful as you prepare for CompTIA Linux+.

**Target Student:** This course is intended for entry-level computer support professionals with basic knowledge of computer hardware, software, and operating systems, who wish to increase their knowledge and understanding of Linux concepts and skills to prepare for a career in Linux support or administration, or to prepare for CompTIA Linux+ Powered by LPI exams (Exam Codes: LX0-101 and LX0-102).

### Course Objectives

Upon successful completion of this course, students will be able to:

- 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.
- manage jobs and processes.
- manage system services.
- configure Linux services to provide users with network connectivity.
- 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.

## **Course Content**

### **Lesson 1: Familiarizing Yourself with Linux**

- Review the History and Development of Linux
- Enter Shell Commands
- Get Help Using Linux
- Start and Stop Linux

### **Lesson 2: Managing User and Group Accounts**

- Create User and Group Accounts
- Configure User Profiles
- Manage User and Group Accounts

### **Lesson 3: Managing Partitions and the Linux Filesystem**

- Create Partitions
- Navigate Through the Linux Filesystem
- Manage the Filesystem
- Maintain the Filesystem

### **Lesson 4: Managing Files in Linux**

- Create and Edit Files
- Locate Files
- Search Text Using Regular Expressions
- Apply Filters to Text Streams
- Link Files
- Back Up and Restore Files
- Manage Databases Using MySQL

### **Lesson 5: Working with Linux Permissions and Ownership**

- Modify File and Directory Permissions
- Modify Default Permissions
- Modify File and Directory Ownership
- Set Advanced Permissions

### **Lesson 6: Printing Files**

- Configure a Local Printer
- Print Files
- Manage Print Jobs and Queues
- Configure Remote Printing

### **Lesson 7: Managing Packages**

- Manage Packages Using RPM
- Verify Packages
- Upgrade Packages

- Configure Repositories
- Manage Packages Using YUM
- Manage Packages Using the Debian Package Manager
- Manage Packages Using Source Files
- Manage Shared Libraries

### **Lesson 8: Managing Kernel Services**

- Explore the Linux Kernel
- Customize Kernel Modules
- Create an initrd Image
- Manage Device Drivers
- Monitor Hardware Devices
- Monitor Processes and Resources

### **Lesson 9: Working with the Bash Shell and Shell Scripts**

- Perform Basic Bash Shell Operations
- Write a Bash Shell Script
- Customize the Bash Shell
- Redirect Standard Input and Output
- Use Control Statements in Shell Scripts

### **Lesson 10: Managing Jobs and Processes**

- Manage Jobs and Background Processes
- Manage Processes Using the Process Table
- Examine Delayed and Detached Jobs
- Schedule Jobs
- Maintain the System Time

### **Lesson 11: Managing System Services**

- Configure System Services
- Monitor System Logs
- Configure SELinux

### **Lesson 12: Configuring Network Services**

- Connect to a Network
- Configure Routes
- Configure Client Network Services
- Manage Remote Network Systems

### **Lesson 13: Configuring Basic Internet Services**

- Configure Email Services
- Control Internet Services

### **Lesson 14: Securing Linux**

- Examine the Basics of System Security
- Secure User Accounts
- Enable Firewall Functionality
- Implement Security Auditing
- Describe the Intrusion Detection System

### **Lesson 15: Managing Hardware**

- Identify Common Hardware Components and Resources
- Configure Removable Hardware
- Configure Disk Quotas

### **Lesson 16: Troubleshooting Linux Systems**

- Troubleshoot System-Based Issues
- Troubleshoot Hardware Issues
- Troubleshoot Network Connection and Security Issues

### **Lesson 17: Installing Linux**

- Prepare for Installation
- Identify the Phases of the Linux Boot Sequence
- Configure GRUB
- Install the Operating System
- Perform Post-Installation Tasks

### **Lesson 18: Configuring the GUI**

- Implement X
- Customize the Display Manager
- Customize the Window Environment

Enable Accessibility Settings in Linux