

LPIC-1: Linux Administrator Comprehensive

Learn to administer Linux systems, covering the command line, file management, package management, filesystems, networking and security.

6 Days

48 HOURS

10

MODULES

43

TOPICS

COURSE OVERVIEW

The LPIC-1: Linux Administrator course is a comprehensive program designed to equip learners with the foundational skills and knowledge required to manage Linux systems. It covers essential topics necessary for the LPIC-1 certification exam and serves as a stepping stone for aspiring Linux professionals. The course is structured into modules that progress from basic to more advanced concepts. Starting with Module 1, learners will master the Command line, gaining proficiency in navigating and manipulating the Linux environment. In Module 2, they'll learn to effectively use Streams, pipes, and redirects to control data flow. Module 3 delves into File permissions and ownership, ensuring security and proper access control. As learners advance to Module 4, they'll acquire skills in File management, followed by Module 5, which focuses on Archives and compression techniques. Module 6 teaches the use of filters to process text streams, while Module 7 explores the power of Regular expressions for searching text files. Module 8 offers hands-on experience with the Vi editor, and Module 9 covers Process management. Module 10 introduces Package management using RPM, Yum, and Debian systems. Module 11 is dedicated to Partitions, filesystems, and disk quotas, with Module 12 shedding light on the Linux boot process. In Module 13, learners will determine and configure Hardware settings, and finally, Module 14 reinforces Linux fundamentals. This course prepares students for the LPIC-1 Linux Administrator certification, validating their ability to perform maintenance tasks, manage system installations, and configure Basic networking.

Who Should Attend

The LPIC-1: Linux Administrator course offers foundational knowledge for managing Linux systems and prepares for LPIC-1 certification.

IT professionals seeking Linux certification

System administrators aiming to manage Linux servers

Network administrators interested in Linux networking concepts

Technical support specialists requiring Linux skills

DevOps engineers needing Linux command line proficiency

Software developers targeting Linux environments

Computer science students specializing in systems management

Data analysts and scientists using Linux-based tools

Database administrators working on Linux servers

IT enthusiasts wanting to learn about Linux administration

Educational institutions' technical staff maintaining Linux systems

IT managers overseeing Linux-based infrastructure

LEARNING OBJECTIVES

- Configure hardware settings and manage the system boot process
- Apply package management using Debian, RPM and YUM tools
- Use streams, pipes, redirects and filters to process text
- Manage file permissions, ownership and hard and symbolic links
- Create partitions, filesystems and control mounting and unmounting
- Customise shell environments and write simple shell scripts
- Configure client side DNS and troubleshoot basic networking
- Perform security administration tasks and set up host security

10 Modules, 43 Topics

101

System Architecture

TOPICS

- 101.1 Determine and configure hardware settings
- 101.2 Boot the system
- 101.3 Change run levels/boot targets and shutdown or reboot system

102

Linux Installation and Package Management

TOPICS

102.1 Design hard disk layout · 102.2 Install a boot manager · 102.3 Manage shared libraries · 102.4 Use Debian package management · 102.5 Use RPM and YUM package management · 102.6 Linux as a virtualisation guest

103

GNU and Unix Commands

TOPICS

- | | |
|--|---|
| ■ 103.1 Work on the command line | ■ 103.5 Create, monitor and kill processes |
| ■ 103.2 Process text streams using filters | ■ 103.6 Modify process execution priorities |
| ■ 103.3 Perform basic file management | ■ 103.7 Search text files using regular expressions |
| ■ 103.4 Use streams, pipes and redirects | ■ 103.8 Basic file editing |

104

Devices, Linux Filesystems, Filesystem Hierarchy Standard

TOPICS

- | | |
|--|---|
| ■ 104.1 Create partitions and filesystems | ■ 104.5 Manage file permissions and ownership |
| ■ 104.2 Maintain the integrity of filesystems | ■ 104.6 Create and change hard and symbolic links |
| ■ 104.3 Control mounting and unmounting of filesystems | ■ 104.7 Find system files and place files in the correct location |
| ■ 104.4 Removed | ■ LPIC-1 Exam 102 |

105

Shells and Shell Scripting

TOPICS

105.1 Customise and use the shell environment ·
105.2 Customise or write simple scripts

106

User Interfaces and Desktops

TOPICS

106.1 Install and configure X11 · 106.2 Graphical
Desktops · 106.3 Accessibility

107

Administrative Tasks

TOPICS

- 107.2 Automate system administration tasks by scheduling jobs
- 107.3 Localisation and internationalisation

108

Essential System Services

TOPICS

108.1 Maintain system time · 108.2 System logging ·
108.3 Mail Transfer Agent (MTA) basics · 108.4 Manage
printers and printing

109

Networking Fundamentals

TOPICS

109.1 Fundamentals of internet protocols · 109.2
Persistent network configuration · 109.3 Basic
network troubleshooting · 109.4 Configure client
side DNS

110

Security

TOPICS

110.1 Perform security administration tasks · 110.2 Setup host security · 110.3 Securing data with encryption

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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