

Essentials of Linux System Administration (LFS201)

Modality: On Demand

Duration: 50 Hours

About this Course:

Linux is the #1 operating system for web servers, cloud computing, smart phones and consumer electronics. Due to its high adoption rates and continued growth, there's a shortage of Linux system administrators. This course will teach you the skills and processes you need to work as a professional Linux systems administrator. The topics covered are directly aligned with the knowledge domains tested by the Linux Foundation Certified Systems Administrator (LFCS) exam, and will substantially increase students' ability to become certified.

Course Objectives:

You'll learn how to administer, configure and upgrade Linux systems running one of the three major Linux distribution families (Red Hat, SUSE, Debian/Ubuntu). You'll also learn all the tools and concepts you need to efficiently build and manage a production Linux infrastructure.

Audience:

The course is ideal for those new to IT, or those who have worked with operating systems other than Linux and want to move into a career administering Linux systems. Aspiring cloud professionals will also benefit from understanding Linux administration as it serves as the basis of most cloud instances

Course Outline:

Chapter 1. Course Introduction

Chapter 2. Linux Filesystem Tree Layout

Chapter 3. Processes

Chapter 4. Signals

Chapter 5. Package Management Systems

Chapter 6. RPM

Chapter 7. DPKG

Chapter 8. yum

- Chapter 9. zypper
- Chapter 10. APT
- Chapter 11. System Monitoring
- Chapter 12. Process Monitoring
- Chapter 13. Memory: Monitoring Usage and Tuning
- Chapter 14. I/O Monitoring and Tuning
- Chapter 15. I/O Scheduling
- Chapter 16. Linux Filesystems and the VFS
- Chapter 17. Disk Partitioning
- Chapter 18. Filesystem Features: Attributes, Creating, Checking, Mounting
- Chapter 19. Filesystem Features: Swap, Quotas, Usage
- Chapter 20. The ext2/ext3/ext4 Filesystems
- Chapter 21. The XFS and btrfs Filesystems
- Chapter 22. Encrypting Disks
- Chapter 23. Logical Volume Management (LVM)
- Chapter 24. RAID
- Chapter 25. Kernel Services and Configuration
- Chapter 26. Kernel Modules
- Chapter 27. Devices and udev
- Chapter 28. Virtualization Overview
- Chapter 28. Virtualization Overview
- Chapter 29. Containers Overview
- Chapter 30. User Account Management
- Chapter 31. Group Management

- Chapter 32. File Permissions and Ownership
- Chapter 33. Pluggable Authentication Modules (PAM)
- Chapter 34. Network Addresses
- Chapter 35. Network Devices and Configuration
- Chapter 36. Firewalls
- Chapter 37. System Startup and Shutdown
- Chapter 38. GRUB
- Chapter 39. System Init: systemd, SystemV and Upstart
- Chapter 40. Backup and Recovery Methods
- Chapter 41. Linux Security Modules
- Chapter 42. Local System Security
- Chapter 43. Basic Troubleshooting
- Chapter 44. System Rescue