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Learning Style: On Demand

Technology: Linux Foundation

Difficulty: Beginner

Course Duration: 50 Hours

Essentials of Linux System Administration (LFS201)

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. Th 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

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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