

Red Hat System Administration Part 1 Training Course Outline

Course Description:

Interesting in starting or strengthening a career in Linux System Administration? In this *Red Hat Linux System Administration Part 1* online training course, you will learn to perform the tasks of a RedHat Linux system administrator. You will be introduced to topics unique to the management of RedHat-based Linux distributions. This Red Hat training includes real world examples and exercises to provide practical application of installation, system startup, software management and storage configuration concepts and prepares you for the role of a Linux “system admin.”

GogoTraining also offers this as a self-paced online Red Hat System Administrator training course, a training option available for any course from GogoTraining.

Course Prerequisites:

You will need to have taken *Linux Essentials* or a similar course. You will also need practical experience using Linux/UNIX operating systems including the use of command line tools to navigate files and directories, modify text files. A basic understanding of TCP/IP networking principles is also helpful.

Course Objectives:

As a result of taking this Red Hat Linux course, you will be able to:

- Install a RedHat-based operating system
- Access the system to perform administration tasks
- Configure the boot and startup sequences of the system
- Shutdown the system with multiple methods
- Install, upgrade, and uninstall software
- Understand the file system organization of Linux
- Partition disks and manage logical volumes (LVM)

Course Certification:

Red Hat *Linux Essentials* course maps to the Red Hat course RH124. This course, along with *Red Hat System Administration Part 1 and Part 2* prepare you to take the RH202 Red Hat Certified Technician exam. They also prepare you, along with Red Hat Linux Networking Administration, for the RH 302 Red Hat Certified Engineer exam.

Course Outline:

Module 00: Red Hat Linux System Administration Part 1 - Course Introduction

Module 01: Linux Basics and System Setup

- Demo: Review of standard command line tools to navigate files and directories
- Demo: Modification of text files, IO redirection
- Select best distribution
- Differences between RHEL, CentOS, Fedora

- Virtual environment installation

Module 02: OS Installation Part 1

- Preparing for installation
- Network installation
- First boot

Module 03: OS Installation Part 2

- Demo: RHEL Installation
- Installation Logs
- Demo: First boot setup
- Virtual Consoles

Module 04: System Access Part 1

- Configure sudo privilege escalation
- Demo: Various methods of privilege escalation
- Working on the command line
- Telnet and ssh
- Terminal console

Module 05: System Access Part 2

- Configure ssh
- Access server remotely using ssh
- Ssh authentication methods
- Demo: Using ssh

Module 06: System Startup Part 1

- System boot process
- The GRUB bootloader
- Demo: Tour of GRUB bootloader menu and utilities
- Demo: Changing GRUB bootloader behavior

Module 07: System Startup Part 2

- System run levels
- System boot log
- Demo: Runlevel directory tour and configuration
- Demo: /etc/inittab

Module 08: System Shutdown

- Shutdown options
- Methods of system shutdown and reboot
- Demo: Quick shutdown and reboot demo

Module 09: Managing Software with RPM

- Viewing currently installed packages
- Installing packages

- Uninstalling packages
- Demo: RPM queries

Module 10: Managing Software with YUM

- Viewing currently installed packages
- Installing packages
- Uninstalling packages
- Demo: YUM queries
- Demo: YUM package installation and removal
- Demo: YUM package updates

Module 11: File Systems

- File system Hierarchy Standard (FHS)
- Static vs. Dynamic files
- Special system directories
- Demo: View differences between static and dynamic files

Module 12: Virtual File Systems

- What are virtual file systems?
- The proc virtual file system
- Viewing system info in proc
- Changing system settings with proc
- Demo: Viewing information in the proc file system

Module 13: Disk Partitioning

- Disk partitioning
- Demo: Managing partitions with fdisk

Module 14: LVM

- Understanding LVM
- Using LVM
- Demo: Real-world LVM challenge exercise solution