

Red Hat Linux System Administration Part 2 Training Course Outline

Course Description:

In this continuation of the *Red Hat Linux System Administration Part 1* course, you will learn to perform the tasks of a Red Hat Linux system administrator. This training introduces topics unique to the management of RedHat-based Linux distributions. Real world examples and exercises will provide practical application of storage management, virtual memory, and networking concepts. This Linux system administration training is provided by Darren Douglas, an industry expert in providing Linux system administration courses, and will prepare you for success as 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, and *Red Hat Linux System Administration Part 1*. 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. Previous work in the role of a Linux system administrator is also useful.

Course Objectives:

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

- Configure software RAID
- Manage and configure virtual memory (swap)
- Configure and use NFS and Samba network storage
- Manage system network interfaces and name resolution
- Schedule jobs and perform backups
- Select the most secure tools for administration tasks

Course Certification:

Red Hat Linux System Administration Parts 1 and 2 online training courses along with the prerequisite *Red Hat Linux Essentials* course, map to the Red Hat courses RH124 and RH134. These courses prepare you to take the RH202 Red Hat Certified Technician exam. They also prepare you, along with Red Hat Linux Networking and Administration, for the RH 302 Red Hat Certified Engineer exam.

Course Outline:

Module 00: Red Hat Linux System Administration Part 2 - Course Introduction

Module 01: Software RAID

- RAID concepts & levels
- Hardware vs. Software RAID
- Creating a RAID array

- Replacing a failed disk
- Deleting a RAID array
- Demo: Creating a RAID 1 array
- Demo: Creating a RAID 5 array and replacing a failed disk

Module 02: Swap

- Swap space overview
- Swap best practices
- Viewing virtual memory status
- Creating and enabling swap
- Removing swap
- Demo: Creating and enabling file system swap
- Demo: Creating and enabling device swap
- Exercise: Swap

Module 03: Network Storage - NFS

- NFS basics
- Configuring NFS
- Managing NFS
- Demo: Creating and using exported NFS file systems

Module 04: Network Storage - SMB

- SMB and CIFS
- Samba server configuration
- Samba user configuration
- Demo: Accessing a SMB share from Windows

Module 05: User Management

- Add and modify users
- Managing passwords
- User authentication
- Demo: Adding, modifying, deleting users
- Demo: Password changes and management
- Exercise: User Management

Module 06: Managing Groups

- Add and modify groups
- Demo: Adding, modifying, deleting groups

Module 07: Quotas and ACLs

- Hard vs Soft quotas
- Configuring quotas
- Demo: User and group quota configuration
- Access control
- Demo: ACL configuration

Module 08: Networking Part 1

- Overview of networking commands and configuration files
- Managing system network interfaces
- Demo: Managing network interfaces with ifconfig
- DHCP

Module 09: Networking Part 2

- IP aliasing
- Demo: IP Aliasing
- Name resolution
- Network troubleshooting commands
- Demo: Network troubleshooting tools
- Exercise: Networking

Module 10: Job Scheduling and Network Time

- Job scheduling using crontab
- Using at
- NTP
- Demo: Scheduling Jobs with Cron
- Demo: NTP setup and queries
- Exercise: Job Scheduling and Network Time

Module 11: System Logging and Backup

- Viewing system logs
- Configuring log rotation
- Backup techniques
- Remote backup and recovery with rsync
- Demo: Viewing system logs
- Exercise: System Logging and Backup: Real World File Backup Challenge
- Demo: Real World File Backup Challenge Solution

Module 12: X and Desktop Managers

- X server
- X configuration files
- Exporting a display
- The role of the desktop manager
- Demo: Tour of the RHEL desktop environment

Module 13: System Security

- SELinux
- Server hardening
- Secure vs. insecure system tools

Module 14: Printing and Directory Services

- NIS
- LDAP

- CUPS