



Red Hat Enterprise Linux 9-RHCSA Syllabus

RH124 Red Hat System Administration I

Red Hat System Administration 1 (RH124) is designed for IT Professionals who are new to Linux. This course will actively engage students in task focused activities, lab-based knowledge checks, and facilitative discussions to ensure maximum skill transfer and retention. In addition GUI-based Environment will be featured to build on the student's existing technical knowledge, while command line concepts will be introduced to provide a foundation for students planning to become full time Linux system administrator.

Course Outline

Unit 1: Accessing the Command Line

- ☐ Recognize the BASH shell based on the default prompt.
- ☐ Use Linux efficiently by switching between virtual consoles.
- ☐ Display usage messages and be able to interpret a command's syntax.

Unit 2: Managing Files from the Command Line

- ☐ Recognize and Find Familiarity in a File-system Tree,
- ☐ Learn Terms Like "root" Directory and Subdirectory.
- ☐ Introduction to Different types of Data in Separate System Directories.



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Unit 3: Getting Help in Red Hat Enterprise Linux

- ☐ Learn "man" Terminology, Including Topics and Sections.
- ☐ Become Aware of The importance of less-noticed man sections.

Unit 4: Creating, Viewing and Editing Text Files

- ☐ Describe the Technical Terms Standard Output, and Standard Error. Use Redirection Characters to Control Output to Files.
- ☐ Use Pipe to Control Output to Other Programs.

Unit 5: Manage Local Linux Users and Groups

- ☐ Explain the Role of Users and Groups on a Linux System and How They are Understood by the Computer.

Unit 6: Controlling Access to Files with Linux File-system Permissions

- ☐ Explain How the Linux File Permissions Model Works.

Unit 7: Monitoring and Managing Linux Processes

- ☐ Learn the Processes Lifecycle, in Order to better Comprehend Process States.

Unit 8: Controlling Services and Daemons

- ☐ List System Daemons and Network Services Started by System services and Socket Units



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Unit 9: Configuring and Securing Open-ssh Service

- ☐ Log into a Remote System Using ssh to Run Commands From a Shell Prompt.

Unit 10: Analyzing and Storing Logs

- ☐ Describe the Basic "syslog" Architecture in RHEL7

Unit 11: Managing RHEL Networking

- ☐ Explain Fundamental Concepts of Computer Networking.

Unit 12: Archiving and Copying Files between Systems

- ☐ To Create Backups and Transfer Files Over The Network..

Unit 13: Installing and Updating Software Packages

- ☐ *Register System with Your Red Hat Account and Entitle Them to Software Updates for Installed Products.*

Unit 14: Accessing Linux File-systems

- ☐ Determine which Directories in the File-system Hierarchy are stored on Which Storage Devices.

Unit 15: Using Virtualized Systems

- ☐ Recognize the Consistent Use of KVM Architecture Throughout of Red Hat Product Line.

Unit 16: Accessing the Command Line



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RH 134 Red Hat System Administrations II

Red Hat System Administration II (RH134) is designed for IT Professionals working to full time Linux Administrators, the course is a follow ups to rh124(SA1). This course wills actively engage students in task focused activities, lab-based knowledge checks, and facilitative discussions tonsure maximum skill transfer and retention. Students who attend System Administration I and System Administration II will be fully prepared to take the Red Hat Certified System Administration (RHCSA) Exam.

Course Outline

Unit 1: Automating Installation with Kickstart

- ☐ Explain Kickstart Concepts and Architecture
- ☐ Install and configure Linux using Kickstart

Unit 2: Using Regular Expressions with “grep”

- ☐ Create a Regular Expressions that match desired data.

Unit 3: Creating and Editing Text files with vim

- ☐ Explain the three main modes of “vim”.

Unit 4: Scheduling Future Linux Tasks

- ☐ scheduling tasks using at and cron.

Unit 5: Managing Priority of Linux Processes

- ☐ Explain about Linux Processes and nice values.

Unit 6: Controlling Access to Files with Access Control Lists (ACL)

- ☐ Describe ACL's and file system mount options.



Unit 7: Managing SELinux Security

- ☐ Explain the Basics of Se-Linux permissions and Context Transitions.
- ☐ Display Current Se-Linux Modes.
- ☐ Correctly Interpret the Se-Linux Context of a File.
- ☐ Identify Current Se-Linux Boolean Settings.

Unit 8: Connecting to Network-Defined Users and Groups

- ☐ User authentication using centralized Identity Management Services.

Unit 9: Adding Disks, Partitions, and File Systems to a Linux System

- ☐ Create and Delete disk Partitions on disks with an MBR Partitioning Scheme Using "fdisk".
- Create and Delete disk Partitions on disks with an GPT Partitioning Scheme Using "gdisk".
- Format Devices Using "mkfs"
- Mount File System into the Directory Tree

Unit 10: Managing Logical Volume Management (LVM) Storage

- ☐ How to manage high performance LVM storage.

Unit 11: Accessing Network Attached Storage with Network File System (NFS)

- ☐ Access , Mount and unmount NFS Shares .

Unit 12: Accessing Network Storage with SMB

- ☐ How to mount and unmount smb file-system using the command line.

Unit 13: Controlling and Troubleshooting the Red Hat Enterprise Linux Boot Process

- ☐ Describe and Influence the RHEL Boot Process..

Unit 14: Limiting Network Communication with Firewallled

- ☐ Configure the Basic Firewall Using "firewalld", "firewalld-config" and "firewalld-cmd".

Unit 15: Comprehensive Review

- ☐ Comprehensive Review of System Administration 2