

Red Hat Enterprise Linux 7-RHCSA Syllabus

Duration:- 50 hours

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-basedEnvironment 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.

Audience

- IT Professionals across a board range of disciplines who need to perform essential Linux administration tasks,including installation,establishing network connectivity,managing physical storage and basic system administration

Prerequisites

- There are no formal prerequisites for this course,however,previous system administration experience o other operating system will be very beneficial.

Course Outline

Unit 1: Accessing the Command Line

Objectives:

- 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

Objectives:

- 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.

Unit 3: Getting Help in Red Hat Enterprise Linux

Objectives:

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

TRAINING PARTNER

Unit 4: Creating, Viewing and Editing Text Files

Objectives:

- 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

Objectives:

- 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

Objectives:

- Explain How the Linux File Permissions Model Works.

Unit 7: Monitoring And Managing Linux Processes

Objectives:

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

Unit 8: Controlling Services and Daemons

Objectives:

- List System Daemons and Network Services Started by Systemd services and Socket units.

Unit 9: Configuring And Securing Open-ssh Service

Objectives:

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

Unit 10: Analyzing And Storing Logs

Objectives:

- Describe the Basic “syslog” Architecture in RHEL7

Unit 11: Managing RHEL Networking

Objectives:

- Explain Fundamental Concepts of Computer Networking.

Unit 12: Archiving and Copying Files between Systems

Objectives:

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

Unit 13: Installing and Updating Software Packages

Objectives:

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

Unit 14: Accessing Linux File-systems

Objectives:

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

Unit 15: Using Virtualized Systems

Objectives:

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

Unit 16: Accessing the Command Line

Objectives:

- Comprehensive Review.

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RH134 Red Hat System Administration II

Duration: 30 hours

Red Hat System Administration II (RH134) is designed for IT Professionals working to full time Linux Administrators, the course is a followup to rh124(SA1). This course will actively engage students in task focused activities, lab-based knowledge checks, and facilitative discussions to ensure 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.

Audience

- This course is singularly designed for students who have completed Red Hat System Administration I (RH124). The Organization of topics is such that it is not appropriate for student to use RH134 as a curriculum entry point.

Prerequisites

- Having sat the Red Hat Enterprise System Administration I (RH124) course, or equivalent knowledge.

Course Outline

Unit 1: Automating Installation with Kickstart

Objectives:

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

Unit 2: Using Regular Expressions with “grep”

Objectives:

- Create a Regular Expressions that match desired data.

Unit 3: Creating and Editing Text files with vim

Objectives:

- Explain the three main modes of “vim”.

Unit 4: Scheduling Future Linux Tasks

Objectives:

- Scheduling tasks using at and cron.

Unit 5: Managing Priority of Linux Processes

Objectives:

- Explain about Linux Processes and nice values.

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

Objectives:

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

Unit 7: Managing SELinux Security

Objectives:

- 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

Objectives:

- User authentication using centralized Identity Management Services.

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

Objectives:

- 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

Objectives:

- How to manage high performance LVM storage.

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

Objectives:

- Access , Mount and Unmount NFS Shares .

Unit 12: Accessing Network Storage with SMB

Objectives:

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

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

Objectives:

- Describe and Influence the RHEL Boot Process..

Unit 14: Limiting Network Communication with Firewall

Objectives:

- Configure the Basic Firewall Using “firewalld”, “firewalld-config”and “firewalld-cmd”.

Unit 15: Comprehensive Review

Objectives:

- Comprehensive Review of System Administration 2