



Redhat

RHCSA / RHCE

Linux Contents: Linux is an open source and community-developed operating system for computers, servers, mainframes, mobile devices and embedded devices. It is supported on almost every major computer platform including x86, ARM and SPARC, making it one of the most widely supported operating systems. Linux Certification is world no. 1 certification in open source family. It has two parts:

- 1- RHCSA (Red hat Certified system Administrator)
- 2- RHCE (Red hat certified Engineer)

PART-1

RHCSA:

RHCSA is an entry-level certification that focuses on actual competencies at system administration, including installation and configuration of a Red Hat Enterprise Linux system and attach it to a live network running network services. An IT professional who has earned the Red Hat Certified System Administrator (RHCSA) is able to perform the core system administration skills required in Red Hat Enterprise Linux environments.

SECTION-1

Introduction to Linux:

- ✓ What is Linux
- ✓ Linux History
- ✓ Linux use in global world
- ✓ Difference between Windows, Linux and Unix
- ✓ Linux Distributions
- ✓ File System and Swap

Selection of Hardware:

- ✓ Ram
- ✓ Hard disk
- ✓ CPU
- ✓ Motherboard

Installation planning:

- ✓ Hard disk size
- ✓ Hard disk Type

Linux Installation:

- ✓ Installation with Bootable Device / DVD
- ✓ Installation by Kikstart Method



Section 2:-

Linux Structure:

- ✓ Linux directory structure
- ✓ Linux Partition Name
- ✓ Boot loader
- ✓ Kernel
- ✓ File Systems
- ✓ Shell
- ✓ Difference between Redhat 6 and Redhat 7/8

Linux Commands:

- ✓ Basic Commands
- ✓ Linux Shells
- ✓ Administrative commands
- ✓ Boot, reboot, and shut down the system normally

Input / Output Redirectors:

- ✓ >
- ✓ >>
- ✓ 2>
- ✓ &>
- ✓ 2>

Getting Help in Red Hat Enterprise Linux

- ✓ Learn “man” Terminology
- ✓ Learn Find Syntax and how to use Find
- ✓ Become Aware of The importance of less-noticed man section

User Management:

- ✓ Create, Delete and Modify Users
- ✓ Policies Implement on users
- ✓ Password Implement
- ✓ Password Aging, User login shell, User Home Directory, User Expiry

Group Management:

- ✓ Create, Delete and Modify Groups
- ✓ Put the Users on Primary and Secondary Groups
- ✓ Policies implement on Groups

Permissions:

- ✓ Local Permissions
- ✓ Admin Permissions
- ✓ Sudo
- ✓ Special Permission
- ✓ Ownership
- ✓ Attributes
- ✓ Permission on Groups
- ✓ List, Interpret, Change ugo / rwx



Section 3:-

Backup Management:

- ✔ System Backup
- ✔ Backup compression and decompression
- ✔ Backup with date and time
- ✔ Backup and Restore

Network Configuration:

- ✔ Types of Interfaces
- ✔ NIC Management
- ✔ Old Naming Scheme of Interfaces
- ✔ Diagnose and correct misconfigured networking settings
- ✔ Diagnose and correct hostname resolution problems
- ✔ Use SSH and VNC to access remote systems

Software Management:

- ✔ Install and Remove the Software with RPM
- ✔ Management with the YUM Technology
- ✔ Repositories Concepts
- ✔ Repositories Management
- ✔ Create Local YUM Repository

Cron Job Management:

- ✔ Automation
- ✔ Scheduling the Programs and tasks
- ✔ Backdoor Jobs execute and modify

Security Management:

- ✔ Linux Process Management
- ✔ ACL
- ✔ Boot Process
- ✔ Grub Password
- ✔ Run Levels
- ✔ Password Break and Grub Password
- ✔ Use single-user mode to gain access to a system if Root Password Forgot
- ✔ Boot systems into different run levels for troubleshooting
- ✔ Trouble Shoot of Linux with Linux Rescue
- ✔ Selinux Introduction
- ✔ Modes of Selinux
- ✔ Selinux Bolions
- ✔ Selinux Context
- ✔ Selinux Errors
- ✔ Firewall-d Configuration
- ✔ Firewall-d Services addition
- ✔ Securely Transfer Files Between Machines



Virtualization:

- ✓ Types of Hypervisors
- ✓ Add Module of Virtualization in Linux
- ✓ Installation of KVM
- ✓ Access KVM from GUI as well as from CMD

Shortcuts:

- ✓ Difference between Soft and Hard Link
- ✓ Soft Link
- ✓ Hard Link

Process Management:

- ✓ Usable commands
- ✓ Configure and Understand Netdata
- ✓ Configure and Understand Monit
- ✓ Process Priority
- ✓ Logs

Disk Management:

- ✓ Partition Tables
- ✓ Standard Partition
- ✓ LVM
- ✓ Create and Resize PV, VG, LV
- ✓ Disk Quota
- ✓ Partition Table
- ✓ Install bootloader and modify the system bootloader
- ✓ Understand MBR-Style Partitions (Primary, Extended, Logical) list/create/delete partitions

LDAP Authentication:

- ✓ Understand LDAP Authentication
- ✓ Understand and Installation of Free IPA
- ✓ Configure Client for Free IPA