

## RHCSA REDHAT CERTIFIED SYSTEM Administrator





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## INTRODUCTION

Welcome to the Red Hat Certified System Administrator (RHCSA) training program, your gateway to the dynamic world of Linux system administration. In today's digital age, where robust IT infrastructure is vital, there is an increasing demand for skilled professionals who can effectively manage and maintain Linuxbased systems. The RHCSA certification equips you with the knowledge and skills needed to configure, manage, and troubleshoot Red Hat Enterprise Linux environments, ensuring seamless operation and security compliance.

## WHY CHOOSE RHCSA?

The RHCSA certification is widely acknowledged as the gold standard for proficiency in Linux system administration. By joining this training program, you will:

- 1. Acquire a deep understanding of Linux system administration principles and methodologies.
- 2. Benefit from the guidance of seasoned, certified instructors who excel in the realm of Linux administration.
- 3. Cultivate practical skills through hands-on exercises and real-world simulations.
- 4. Tap into a vast array of resources, including course materials, practice exams, and study guides.
- 5. Prepare thoroughly to take on the RHCSA certification exam and demonstrate your expertise in Linux system administration.

### WHO SHOULD ATTEND?

The RHCSA training program is ideal for:

- 1. IT professionals aiming to bolster their expertise in Linux system administration and progress in their careers.
- 2. System administrators entrusted with the task of securing and maintaining Linuxbased networks and servers.
- 3. Linux enthusiasts and professionals seeking formal recognition of their skills through industry-standard certification.
- 4. Individuals keen on entering the field of IT and specializing in Linux system administration to fortify organizations against cyber risks.



## **COURSE OVERVIEW**

Our RHCSA training program consists of 17 modules, covering a wide range of topics, including:

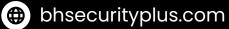
- Introduction to Red Hat Enterprise Linux (RHEL)
- Accessing the Command Line
- Managing Files from the Command Line
- Getting Help in RHEL
- Creating, Viewing, and Editing Text Files
- Managing Local Users and Groups
- Controlling Access to Files
- Monitoring and Managing Linux Processes
- Controlling Services and Daemons
- Configuring and Securing SSH
- Analyzing and Storing Logs
- Archiving and Transferring Files
- Installing and Updating Software Packages
- Accessing Linux File Systems
- Shell Scripting
- Regular Expressions
- Scheduling Future Tasks

Each module is designed to provide you with the knowledge and skills necessary to excel in the field of ethical hacking.

## JOIN US TODAY

Are you ready to elevate your Linux system administration skills? Embark on this thrilling journey with us and become a Red Hat Certified System Administrator (RHCSA). Enroll now and open doors to limitless opportunities in the fast-evolving realm of IT infrastructure management.





## **MODULE 01: INTRODUCTION TO**

#### RHEL

- What is Operating System?
- • What is Linux?
- What is Linux Distribution?
- Red Hat Enterprise Linux
- About Virtual Box and VMware
- Installation of Red Hat to Virtual Box

#### **MODULE 02: ACCESSING THE COMMAND LINE**

- Introduction to Bash Shell
- Types of Shells and its Basic
- About Gnome Desktop Environment
- About Workspaces and Terminal
- Running Simple Commands on Terminal
- Viewing the Content of Files
- About Tab Button Completion
- Command History
- Command Line Editing Shortcuts

#### **MODULE 03: SCANNING NETWORKS**

- The File-System Hierarchy
- RHEL Directories and its Purpose
- Absolute Path and Relative Path
- Navigating Path and Listing
- ·Creating Files and Directories
- Copying and Moving Files and Directories
- Removing Files and Directories
- Managing Link Between Files
- Matching File Name with Shell Expansion



#### **MODULE 04: GETTING HELP IN RHEL**

- Introduction the Man Command
- Navigate and Search Man Pages
- Introduction to GNU Info
- Man Page v/s GNU info

#### MODULE 05: CREATING, VIEWING AND EDITING TEXT FILES

- Standard Input, Output and Error
- Redirecting Output to a File
- About Pipelines
- About tee command
- Editing Files with VIM
- Changing the Shell Environment

#### MODULE 06: MANAGING LOCAL USERS AND GROUP

- What is a User, and it Types
- About Passwd File for User
- Creating, Modifying and Deleting User
- Setting Password for the Users
- What is a Group, and it Types
- About Group File for Group
- Creating, Modifying and Deleting Group
- About the Superuser
- Switching Users
- About Sudo Command
- Running Command with Sudo
- Configuring Sudo
- Managing User Passwords
- Configuring Password Aging

#### MODULE 07: CONTROLLING ACCESS TO FILES

- Linux File-System Permissions
- Effect of Permissions on File and Directory
- About ownership of File and Directory
- Changing File and Directory Permissions
- Changing File and Directory Ownership
- Special Permissions in Linux
- Changing Default Permissions

#### **MODULE 08: MONITORING AND**

#### MANAGING LINUX PROCESS

- About Process and its States
- Listing Process
- Jobs and Sessions
- Running Jobs in the Background
- Process Control using Signals
- Introduction to Load Average
- Real-Time Process Monitoring

#### MODULE 09: CONTROLLING SERVICES AND DAEMONS

- Introduction to System
- Introduction to Service Units
- Listing Service Units
- Viewing Service States
- Verifying the Status of the Service
- Starting and Stopping Service
- Restarting and Reloading Service
- Enabling and Disabling Service



#### **MODULE 10: CONFIGURING AND** SECURING SSH

- What is OpenSSH
- SSH Password-Based Authentication
- About SSH Host Keys
- SSH Key-Based Authentication
- Generating SSH Keys
- Sharing the Public Key
- Configuring the OpenSSH Server
- Prohibit the Super User from Logging
- Prohibit the Password-Based Authentication

#### **MODULE 11: ANALYSING AND** STORING LOGS

- Introduction to System Logging
- Important System Log Files
- Overview of Syslog Priorities
- Log File Rotation
- Maintaining Accurate time
- Setting Local Clock and Time Zones

#### **MODULE 12: ARCHIVING AND** TRANSFERRING FILES

- The Tar Command
- Different Options in Tar Command
- Archiving Files and Directories
- Listing Contents of an Archive
- Extracting Files from an Archive
- Creating a Compressed Archive

- Extracting a Compressed Archive
- Transferring Files Using Secure Copy



#### MODULE 13: INSTALLING AND UPDATING SOFTWARE PACKAGES

- Red Hat Subscription Management
- Registration From the Command Line
- Software Packages and RPM
- Updating Software Packages
- Installing RPM Packages
- Managing Software Packages with Yum

#### MODULE 15: ACCESSING LINUX

#### FILES SYSTEMS

- Storage Management Concepts
- Examining File Systems
- Mounting File System Manually
- Unmounting File Systems
- Search for Files using Locate Command
- Searching for Files in Real Time
- Searching File based on Owner and Group
- Searching File based on File Type and Size

#### **MODULE 16: SHELL SCRIPTING**

- Creating and Executing Bash Shell Script
- Quoting Special Character
- Using Loops to Iterate Commands
- Using Exit Codes within a Script
- Testing Script Inputs
- Condition in Shell Script

#### MODULE 17: REGULAR EXPRESSION

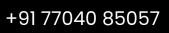
- About Regular Expression
- Matching the Start and End of the Line
- Adding Wildcards and Multipliers
- Different Regular Expression Options

#### **MODULE 18: SCHEDULING FUTURE** TASKS

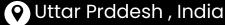
- Introduction to Deferred User Tasks
- Scheduling Deferred User Tasks
- Inspecting and Managing Deferred User Jobs
- Removing Jobs
- Introduction to Recurring User Jobs
- Scheduling Recurring User Jobs











# **CONTACT US**



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