

# RHCSA TRAINING

(Red Hat Certified System Administrator)

**Course Code - EX200** 

Duration - 70 Hours











# CONTENT

#### **Unit 1 - GET STARTED WITH RED HAT ENTERPRISE LINUX**

- What Is Linux?
- Quiz: Get Started with Red Hat Enterprise Linux
- Summary

#### **Unit 2 - ACCESS THE COMMAND LINE**

- Access the Command Line
- Ouiz: Access the Command Line
- Access the Command Line with the Desktop
- Guided Exercise: Access the Command Line with the Desktop
- Execute Commands with the Bash Shell
- o Quiz: Execute Commands with the Bash Shell
- Lab: Access the Command Line
- Summary

#### **Unit 3 - MANAGE FILES FROM THE COMMAND LINE**

- o Describe Linux File System Hierarchy Concepts
- Quiz: Describe Linux File System Hierarchy Concepts
- Specify Files by Name
- Quiz: Specify Files by Name
- Manage Files with Command-line Tools
- Guided Exercise: Manage Files with Command-line Tools
- Make Links Between Files
- Guided Exercise: Make Links Between Files
- o Match File Names with Shell Expansions
- Quiz: Match File Names with Shell Expansions
- o Lab: Manage Files from the Command Line
- Summary

#### Unit 4 - GET HELP IN RED HAT ENTERPRISE LINUX

- Read Manual Pages
- Guided Exercise: Read Manual Pages
- Lab: Get Help in Red Hat Enterprise Linux
- Summary

#### Unit 5 - CREATE, VIEW, AND EDIT TEXT FILES

- Redirect Output to a File or Program
- Quiz: Redirect Output to a File or Program
- Edit Text Files from the Shell Prompt
- o Guided Exercise: Edit Text Files from the Shell Prompt
- Change the Shell Environment
- o Guided Exercise: Change the Shell Environment
- Lab: Create, View, and Edit Text Files
- Summary

#### **Unit 6 - MANAGE LOCAL USERS AND GROUPS**

- o Describe User and Group Concepts
- Quiz: Describe User and Group Concepts
- Gain Superuser Access
- Guided Exercise: Gain Superuser Access
- Manage Local User Accounts
- o Guided Exercise: Manage Local User Accounts
- Manage Local Group Accounts
- Guided Exercise: Manage Local Group Accounts
- Manage User Passwords
- Guided Exercise: Manage User Passwords
- Lab: Manage Local Users and Groups
- Summary

#### **Unit 7 - MONITOR AND MANAGE LINUX PROCESSES**

- Process States and Lifecycle.
- o Quiz: Process States and Lifecycle
- Control Jobs
- o Guided Exercise: Control Jobs
- Kill Processes
- Guided Exercise: Kill Processes
- Monitor Process Activity
- Guided Exercise: Monitor Process Activity
- Lab: Monitor and Manage Linux Processes
- Summary

#### **Unit 8 - CONTROL SERVICES AND DAEMONS**

- Identify Automatically Started System Processes
- o Guided Exercise: Identify Automatically Started System Processes
- Control System Services
- o Guided Exercise: Control System Services
- Lab: Control Services and Daemons
- Summary

#### **Unit 9 - CONFIGURE AND SECURE SSH**

- Access the Remote Command Line with SSH
- o Guided Exercise: Access the Remote Command Line
- Configure SSH Key-based Authentication
- o Guided Exercise: Configure SSH Key-based Authentication
- Customize OpenSSH Service Configuration
- o Guided Exercise: Customize OpenSSH Service Configuration
- Lab: Configure and Secure SSH
- Summary

#### Unit 10 - ANALYZE AND STORE LOGS

- Describe System Log Architecture
- o Quiz: Describe System Log Architecture
- Review Syslog Files
- o Guided Exercise: Review Syslog Files
- o Review System Journal Entries
- o Guided Exercise: Review System Journal Entries
- o Preserve the System Journal
- o Guided Exercise: Preserve the System Journal
- Maintain Accurate Time
- Guided Exercise: Maintain Accurate Time
- Lab: Analyze and Store Logs
- Summary

#### **Unit 11 - MANAGE NETWORKING**

- Describe Networking Concepts
- Quiz: Describe Networking Concepts
- Validate Network Configuration
- Guided Exercise: Validate Network Configuration
- o Configure Networking from the Command Line
- o Guided Exercise: Configure Networking from the Command Line
- Edit Network Configuration Files
- Guided Exercise: Edit Network Configuration Files
- o Configure Hostnames and Name Resolution
- o Guided Exercise: Configure Hostnames and Name Resolution
- Lab: Manage Networking
- Summary

#### **Unit 12 - ARCHIVE AND TRANSFER FILES**

- Manage Compressed tar Archives
- o Guided Exercise: Manage Compressed tar Archives
- o Transfer Files Between Systems Securely
- Guided Exercise: Transfer Files Between Systems Securely
- Synchronize Files Between Systems Securely

#### **Unit 13 - INSTALL AND UPDATE SOFTWARE PACKAGES**

- Register Systems for Red Hat Support
- o Quiz: Register Systems for Red Hat Support
- Explain and Investigate RPM Software Packages
- o Guided Exercise: Explain and Investigate RPM Software Packages
- Install and Update Software Packages with DNF
- o Guided Exercise: Install and Update Software Packages with DNF
- Enable DNF Software Repositories
- o Guided Exercise: Enable DNF Software Repositories
- Lab: Install and Update Software Packages
- Summary

#### **Unit 14 - ACCESS LINUX FILES SYSTEMS**

- Identify File Systems and Devices
- o Quiz: Identify File Systems and Devices
- Mount and Unmount File Systems
- Guided Exercise: Mount and Unmount File Systems
- Locate Files on the System
- Guided Exercise: Locate Files on the System
- Lab: Access Linux File Systems

#### **Unit 15 - ANALYZE SERVERS AND GET SUPPORT**

- Analyze and Manage Remote Servers
- Guided Exercise: Analyze and Manage Remote Servers
- o Get Help From Red Hat Customer Portal
- o Guided Exercise: Get Help From Red Hat Customer Portal
- Detect and Resolve Issues with Red Hat Insights
- Guided Exercise: Locate Files on the System
- Lab: Access Linux File Systems

#### **Unit 16 - COMPREHENSIVE REVIEW**

- Manage Compressed tar Archives
- o Guided Exercise: Manage Compressed tar Archives
- Transfer Files Between Systems Securely
- Guided Exercise: Transfer Files Between Systems Securely
- Synchronize Files Between Systems Securely

#### **Unit 17 - IMPROVE COMMAND LINE PRODUCTIVITY**

- Write Simple Bash Scripts
- Guided Exercise: Write Simple Bash Scripts
- Loops and Conditional Constructs in Scripts
- o Guided Exercise: Loops and Conditional Constructs in Scripts
- Match Text in Command Output with Regular Expressions
- Guided Exercise: Match Text in Command Output with Regular Expressions
- o Lab: Improve Command-line Productivity

#### **Unit 18 - SCHEDULE FUTURE TASK**

- Schedule a Deferred User Job
- Guided Exercise: Schedule a Deferred User Job
- Schedule Recurring User Jobs
- Guided Exercise: Schedule Recurring User Jobs
- Schedule Recurring System Jobs
- Guided Exercise: Schedule Recurring System Jobs
- Manage Temporary Files
- Guided Exercise: Manage Temporary Files

#### **Unit 19 - TUNE SYSTEM PERFORMANCE**

- Adjust Tuning Profiles
- Guided Exercise: Adjust Tuning Profiles
- o Influence Process Scheduling
- Guided Exercise: Influence Process Scheduling
- Lab: Tune System Performance

#### **Unit 20 - MANAGE SELINUX SECURITY**

- Change the SELinux Enforcement Mode
- Guided Exercise: Change the SELinux Enforcement Mode
- o Control SELinux File Contexts
- Guided Exercise: Control SELinux File Contexts
- Adjust SELinux Policy with Booleans
- o Guided Exercise: Adjust SELinux Policy with Booleans
- Investigate and Resolve SELinux Issues
- o Guided Exercise: Investigate and Resolve SELinux Issues
- Lab: Manage SELinux Security

#### **Unit 21 - MANAGE BASIC STORAGE**

- Add Partitions, File Systems, and Persistent Mounts
- Guided Exercise: Add Partitions, File Systems, and Persistent Mounts
- Manage Swap Space
- o Guided Exercise: Manage Swap Space
- Lab: Manage Basic Storage

#### **Unit 22 - MANAGE STORAGE STACK**

- Create and Extend Logical Volumes
- Guided Exercise: Create and Extend Logical Volumes
- Manage Layered Storage
- Guided Exercise: Manage Layered Storage
- Lab: Manage Storage Stack

#### **Unit 23 - ACCESS NETWORK - ATTACHED STORAGE**

- Manage Network-Attached Storage with NFS
- Guided Exercise: Manage Network-Attached Storage with NFS
- Automount Network-Attached Storage
- o Guided Exercise: Automount Network-Attached Storage
- Lab: Access Network-Attached Storage
- Summary

#### **Unit 24 - CONTROL THE BOOT PROCESS**

- Select the Boot Target
- o Guided Exercise: Select the Boot Target
- Reset the Root Password
- Guided Exercise: Reset the Root Password
- Repair File System Issues at Boot
- o Guided Exercise: Repair File System Issues at Boot
- Lab: Control the Boot Process

#### **Unit 25 - MANAGE NETWORK SECURITY**

- Manage Server Firewalls
- Guided Exercise: Manage Server Firewalls
- Control SELinux Port Labeling
- Guided Exercise: Control SELinux Port Labeling
- Lab: Manage Network Security

#### **Unit 26 - INSTALL RED HAT ENTERPRISE LINUX**

- Install Red Hat Enterprise Linux
- o Guided Exercise: Install Red Hat Enterprise Linux
- Automate Installation with Kickstart
- Guided Exercise: Automate Installation with Kickstart
- o Install and Configure Virtual Machines
- o Quiz: Install and Configure Virtual Machines
- Lab: Install Red Hat Enterprise Linux
- Summary

#### **Unit 27 - RUN CONTAINERS**

- Container Concepts
- o Quiz: Container Concepts
- Deploy Containers
- o Guided Exercise: Deploy Containers
- o Manage Container Storage and Network Resources
- Guided Exercise: Manage Container Storage and Network Resources
- Manage Containers as System Services
- Lab: Run Containers

#### **Unit 28 - COMPREHENSIVE REVIEW**

- Comprehensive Review
- Lab: Fix Boot Issues and Maintain Servers
- Lab: Configure and Manage File Systems and Storage
- o Lab: Configure and Manage Server Security
- Lab: Run Containers

#### LEARNING OBJECTIVE OF THIS TRAINING

By attending this Red Hat Enterprise Linux training, you will gain the skills to navigate the command line, manage files and users, configure basic networking, install software, secure the system, and perform essential administrative tasks. You'll learn practical concepts through guided exercises and labs, preparing you to manage and maintain a Linux server environment.

#### PREREQUISTE FOR THIS TRAINING

 Good knowledge of Basics of Networking or CCNA 200-301 is recommended before attending RHCSA Training.

#### **CERTIFICATION PATH**

After completion of the training, Candidate can attempt its official exam of the Red Hat.

- Exam Code EX200K
- Exam Name Red Hat Certified System Administrator (RHCSA)
- Exam Type Practical Lab Based
- Exam Format Online Proctored
- Exam Location Remote Location or Official Testing Center
- Number of Questions 15 Questions
- Exam Duration 180 minutes
- Maximum Marks 300
- Minimum Passing Score 210
- Expiration 3 Years



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