

# LINUX

## ADMINISTRATION



### CURRICULUM

#### » **Red Hat System Administration I RHEL7 (Rh124) For RHCSA ( RH-124+RH134 )**

#### » **Course Outline**

#### » **Access the command line**

✍ Log in to a Linux system and run simple commands using the shell.

#### » **Manage files from the command line**

✍ Copy, move, create, delete, and organize files from the bash shell prompt.

#### » **Getting help in Red Hat Enterprise Linux**

✍ Resolve problems by using online help systems and Red Hat support utilities.

#### » **Create, view, and edit text files**

✍ Create, view, and edit text files from command output or in an editor.

#### » **Manage local Linux users and groups**

✍ Manage local Linux users and groups, and administer local password policies.

#### » **Control access to files with Linux file system Permission**

✍ Set Linux file system permissions on files and interpret the security effects of different permission settings.

#### » **Monitor and manage Linux processes**

✍ Obtain information about the system, and control processes running on it.

#### » **Control services and daemons**

✍ Control and monitor network services and system daemons using systemd.

#### » **Configure and secure Open SSH service**

✍ Access and provide access to the command line on remote systems securely using OpenSSH.

#### » **Analyze and store logs**

✍ Locate and accurately interpret relevant system log files for troubleshooting purposes.

#### » **Manage Red Hat Enterprise Linux networking**

✍ Configure basic IPv4 networking on Red Hat Enterprise Linux systems.

#### » **Archive and copy files between systems**

✍ Archive files and copy them from one system to another.

#### » **Install and update software packages**

✍ Download, install, update, and manage software packages from Red Hat and yum package repositories.

#### » **Access Linux file systems**

✍ Access and inspect existing file systems on a Red Hat Enterprise Linux system.

#### » **Use virtualized systems**

✍ Create and use Red Hat Enterprise Linux virtual machines with KVM and libvirt.

## » **Manage Physical Storage II**

 Manage filesystem attributes and swap space


## » **Comprehensive review**

 Practice and demonstrate the knowledge and skills learned in this course.

## » **Red Hat System Administration II**

**RHEL7 (RH134)**

### » **Automate installation with Kickstart**

 Automate the installation of Red Hat Enterprise Linux systems with Kickstart.

### » **Use regular expressions with grep**

 Write regular expressions that, when partnered with grep, will allow you to quickly isolate or locate content within text files.

### » **Create and Edit text files with vim**

 Introduce the vim text editor, with which you can open, edit, and save text files.

### » **Schedule future Linux tasks**

 Schedule tasks to automatically execute in the future.


### » **Manage priority of Linux processes**

 Influence the relative priorities at which Linux processes run.

### » **Control access to files with access control lists (ACL)**

 Manage file security using POSIX access control lists.

### » **Manage SELinux security**

 Manage the Security Enhanced Linux (SELinux) behavior of a system to keep it secure in case of a network service compromise.

### » **Connect to network-defined users and groups**

 Configure systems to use central identity management services

### » **Add disks, partitions, and file systems to a Linux system**

 Manage simple partitions and file systems.

### » **Manage logical volume management (LVM) storage**

 Manage logical volumes from the command line.

### » **Access networked attached storage with network file system (NFS)**

 Access (secure) NFS shares.

### » **Access networked storage with SMB**

 Use autofs and the command line to mount and unmount SMB file systems.

### » **Control and troubleshoot the Red Hat Enterprise Linux boot process**

 Limit network communication with firewall Configure a basic firewall.

## » **Comprehensive review**

 Practice and demonstrate knowledge and skills learned in this course.

## » **Red Hat System Administration III**

**RHEL7 (RH 254)**

### » **Advance Usage Of Systemctl to Control services and daemons**

 Review how to manage services and the boot-up process using systemctl.

- » **Manage IPv6 networking**
  - ✍ Configure and troubleshoot basic Ipv6 networking on Red Hat Enterprise Linux systems
- » **Configure link aggregation (Teaming) and bridging**
  - ✍ Configure and troubleshoot advanced network interface functionality including bonding, teaming, and local software bridges.
- » **Advance Firewall & SELinux**
  - ✍ Permit and reject access to network services using advanced SELinux and firewall filtering techniques.
- » **Manage DNS Caching servers**
  - ✍ Set and verify correct DNS records for systems and configure secure DNS caching.
- » **Configure email Null Client Server**
  - ✍ Relay all email sent by the system to an SMTP gateway for central delivery.
- » **Provide block-based storage**
  - ✍ Provide and use networked iSCSI block devices as remote disks.
- » **Provide file-based storage**
  - ✍ Provide NFS exports and SMB file shares to specific systems and users.
- » **Configure MariaDB databases**
  - ✍ Provide a MariaDB SQL database for use by programs and database administrators.
- » **Provide Apache HTTPD web service**
  - ✍ Configure Apache HTTPD to provide Transport Layer Security (TLS)-enabled websites and virtual hosts.
- » **Write Bash scripts**
  - ✍ Write simple shell scripts using Bash.
- » **Bash conditionals and control structures**
  - ✍ Use Bash conditionals and other control structures to write more sophisticated shell commands and scripts.
- » **Configure the shell environment**
  - ✍ Customize Bash startup and use environment variables, Bash aliases, and Bash functions.
- » **Comprehensive review**
  - ✍ Practice and demonstrate knowledge and skills learned in Red Hat System Administration III.

Partners :



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