# **Red Hat Enterprise Linux 8 – RHCE Syllabus**

# **RH124 - Red Hat System Administration I**

### • Get started with Red Hat Enterprise Linux

• Describe and define open source, Linux distributions, and Red Hat Enterprise Linux.

### • Access the command line

• Log into a Linux system and run simple commands using the shell.

### • Manage files from the command line

- Copy, move, create, delete, and organize files while working from the bash shell.
- Get help in Red Hat Enterprise Linux
- Resolve problems by using local help systems.
- Create, view, and edit text files
- Manage text files from command output or in a text editor.
- Manage local users and groups
- Create, manage, and delete local users and groups, as well as administer local password policies.

### • Control access to files

- Set Linux file system permissions on files and interpret the security effects of different permission settings.
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### Monitor and manage Linux processes

 Evaluate and control processes running on a Red Hat Enterprise Linux system .Control services and daemons

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

#### • Configure and secure SSH

• Configure secure command line service on remote systems, using OpenSSH.

#### Analyze and store logs

 Locate and accurately interpret logs of system events for troubleshooting purposes.

#### Manage networking

Configure network interfaces and settings on Red Hat Enterprise Linux servers.

#### • Archive and transfer files

Archive and copy files from one system to another.

#### Install and update software

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

#### • Access Linux files systems

 Access, inspect, and use existing file systems on storage attached to a Linux server.

#### Analyze servers and get support

• Investigate and resolve issues in the web-based management interface, getting support from Red Hat to help solve problems.

### Comprehensive review

• Review the content covered in this course by completing hands-on exercise

# **RH134 - Red Hat System Administration II**

### Improve command line productivity

• Run commands more efficiently by using advanced features of the bash shell, shell scripts, and various utilities provided by Red Hat Enterprise Linux.

### • Schedule future tasks

• Schedule commands to run in the future, either one time or on a repeating schedule.

### • Tune system performance

• Improve system performance by setting tuning parameters and adjusting scheduling priority of processes.

### • Control access to files with ACLs

• Interpret and set access control lists (ACLs) on files to handle situations requiring complex user and group access permissions.

### Manage SELinux security

• Protect and manage the security of a server by using SELinux.

### • Maintain basic storage

• Create and manage storage devices, partitions, file systems, and swap spaces from the command line.

### • Manage logical volumes

• Create and manage logical volumes containing file systems and swap spaces from the command line.

### Implement advanced storage features

 Manage storage using the Stratis local storage management system and use VDO volumes to optimize storage space in use.

### Access network-attached storage

• Use the NFS protocol to administer network-attached storage.

### • Control the boot process

 Manage the boot process to control services offered and to troubleshoot and repair problems.

### • Manage network security

 Control network connections to services using the system firewall and SELinux rules.

### • Install Red Hat Enterprise Linux

• Install Red Hat Enterprise Linux on servers and virtual machines.

## **RH294 - Red Hat System Administration III**

#### Introduce Ansible

• Describe Ansible concepts and install Red Hat Ansible Engine.

### Deploy Ansible

• Configure Ansible to manage hosts and run ad hoc Ansible commands.

### Implement playbooks

• Write a simple Ansible Playbook and run it to automate tasks on multiple managed hosts.

### • Manage variables and facts

• Write playbooks that use variables to simplify management of the playbook and facts to reference information about managed hosts.

### • Implement task control

• Manage task control, handlers, and task errors in Ansible Playbooks.

### • Deploy files to managed hosts

• Deploy, manage, and adjust files on hosts managed by Ansible.

### • Manage large projects

- Write playbooks that are optimized for larger, more complex projects.
- Simplify playbooks with roles
- Use Ansible roles to develop playbooks more quickly and to reuse Ansible code
- Troubleshoot Ansible
- Troubleshoot playbooks and managed hosts.

### • Automate Linux administration tasks

• Automate common Linux system administration tasks with Ansible.

