RHCE Certification lab (RH299)

Course Contents:

Local and remote logins
- Review methods for accessing the system and engaging Red Hat Support.

File system navigation
- Copy, move, create, delete, link, and organize files while working from the Bash shell prompt.

Users and groups
- Manage Linux users and groups and administer local password policies.

File permissions
- Control access to files and directories using permissions and access control lists (ACLs).

SELinux permissions
- Manage the SELinux behavior of a system to keep it secure in case of a network service compromise.

Process management
- Evaluate and control processes running on a Red Hat Enterprise Linux system.

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

Creating and mounting file systems
- Create and manage disks, partitions, and filesystems from the command line.

Service management and boot troubleshooting
- Control and monitor system daemons and troubleshoot the Red Hat Enterprise Linux boot process.

Network configuration
- Configure basic IPv4 networking on Red Hat Enterprise Linux systems.

System logging and ntp
- Locate and accurately interpret relevant system log files for troubleshooting purposes.

Logical volume management
- Create and manage logical volumes from the command line.

Scheduled processes
- Schedule tasks to automatically execute in the future.

Mounting network file systems
- Use autofs and the command line to mount and unmount network storage with NFS and SMB.

Firewall configuration

- Configure a basic firewall.

Virtualization and kickstart

- Automate the installation of Red Hat Enterprise Linux on virtual machines with kernel-based virtual machine (KVM) and libvirt.

Managing IPv6 networking

- Configure and troubleshoot basic IPv6 networking on Red Hat Enterprise Linux systems.

Configuring link aggregation and bridging

- Configure and troubleshoot advanced network interface functionality including bonding, teaming, and local software bridges.

Controlling network port security

- Permit and reject access to network services using advanced SELinux and firewalld filtering techniques.

Managing DNS for Servers

- Set and verify correct DNS records for systems and configure secure-caching DNS.

Configuring E-mail Delivery

- Relay all e-mail sent by the system to a SMTP gateway for central delivery.

Providing block-based storage

- Provide and use networked iSCSI block devices as remote disks.

Providing file-based storage

- Provide NFS exports and SMB file shares to specific systems and users.

Configuring MariaDB databases

- Provide a MariaDB SQL database for use by programs and database administrators.

Providing Apache HTTPD Web Service

- Configure Apache HTTPD to provide Transport Layer Security (TLS)-enabled websites and virtual hosts.

Writing 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.

Configuring the shell environment

- Customize Bash startup and use environment variables, Bash aliases, and Bash functions.