RHCE Certification Lab (RH299VT)

Modality: Virtual Classroom

Duration: 5 Days

About this Course:

This course is designed to help students prepare for the certification lab component of the RHCE certification. The course includes tutorials by experts which revolve around the themes of firewall, system and IPv6 and other key features. There are also multiple practice labs which are included in this course which will be carried out in a virtual classroom setting. A tutor will supervise the participants. The tutor will be easily accessible during this time and will assist participants with the exercises.

Course Objectives:

By the end of this course, the students should be have learnt the following skills and be able to;

- Learn how to mechanize installation of Red Hat Enterprise LinuxA® utilizing the Kickstart.
- Carry out basic troubleshooting and Network configuration.
- Learn how to build and manage firewalls with firewalld.
- Learn how to troubleshoot and manage the services of systemd during the boot process.
- Gain a comprehensive understanding of Target arrangement and iSCSI initiator.
- Learn about Apache HTTPD web server management.
- Learn how to work with with local storage, using and creating file systems.
- Understand the significance of Samba and NFS shared file systems.
- Learn how to manage the settings of SELinux.
- Gain a comprehensive understanding of Postfix Simple Mail Transfer Protocol (SMTP) nullclient for servers
- Gain skills needed for Automating Bash scripting.
- Learn skills need for troubleshooting the Domain Name System (DNS) and caching name server.
- Acquire skills needed for MariaDB SQL database configuration.
- Learn how to provide Network File System (NFS) and Server Message Block (SMB) file servers.

Audience:

This course is targeted towards the following audience;

- Those understudies who have recently attempted the exam of RHCE but were not successful and aspire to give the exam again.
- Those Red Hat certified engineers who are certified on Red Hat Enterprise Linux 6 or prior versions and now aspire to be certified on Red Hat Enterprise Linux 7.
- Those understudies who have successfully completed previous courses of RHCE (Red Hat System Administration I, II, and III or equivalent courses) but hope to acquire more hands-on

training prior to attempting the exam of RHCE.

Prerequisites:

These are the prerequisites which are an absolute requirement for attending this course.

- All understudies attempting this course must have completed previous courses of RHCE such as Red Hat System Administration I, II, and III or equivalent courses.

- Red Hat certified engineers who are certified on Red Hat Enterprise Linux 6 or prior versions and now aspire to be certified on Red Hat Enterprise Linux 7.
- understudies who have successfully completed previous courses of RHCE (Red Hat System Administration I, II, and III or equivalent courses) but hope to acquire more hands-on training prior to attempting the exam of RHCE.
- understudies who have recently attempted the exam of RHCE but were not successful and aspire to give the exam again.

Course Outline:

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.