Course Outline SA-I (124)

Unit 1: Access the command line
– Log in to a Linux system and run simple commands using the shell.

Unit 2: Manage files from the command line
– Copy, move, create, delete, and organize files from the bash shell prompt.

Unit 3: Get help in Red Hat Enterprise Linux
– Resolve problems by using online help systems and Red Hat support utilities.

Unit 4: Create, view, and edit text files
– Create, view, and edit text files from command output or in an editor.

Unit 5: 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 permissions Set Linux file system permissions on files and interpret the security effects of different permission settings.

Unit 6: Monitor and manage Linux processes
– Obtain information about the system, and control processes running on it.

Unit 7: Control services and daemons
– Control and monitor network services and system daemons using systemd

Unit 8: Configure and secure OpenSSH service
– Access and provide access to the command line on remote systems securely using OpenSSH

Unit 9: Analyze and store logs
– Locate and accurately interpret relevant system log files for troubleshooting purposes.

Unit 10: Manage Red Hat Enterprise Linux networking
– Configure basic IPv4 networking on Red Hat Enterprise Linux systems.

Unit 11: Archive and copy files between systems
– Archive files and copy them from one system to another.

Unit 12: Install and update software packages
– Download, install, update, and manage software packages from Red Hat and yum package repositories.

Unit 13: Access Linux file systems
– Access and inspect existing file systems on a Red Hat Enterprise Linux system.

Unit 14: Use virtualized systems
– Create and use Red Hat Enterprise Linux virtual machines with KVM and libvirt.

Unit 15: Comprehensive review
– Practice and demonstrate the knowledge and skills learned in this course.

Course Outline SA-II (134)

Unit 1: Automate installation with Kickstart
Automate the installation of Red Hat Enterprise Linux systems with Kickstart.

Unit 2: 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.

Unit 3: Create and Edit text files with vim
Introduce the vim text editor, with which you can open, edit, and save text files.

Unit 4: Schedule future Linux tasks
Schedule tasks to automatically execute in the future.

Unit 5: Manage priority of Linux processes
Influence the relative priorities at which Linux processes run.

Unit 6: Control access to files with access control lists (ACL)
Manage file security using POSIX access control lists.

Unit 7: Manage SELinux security
Manage the Security Enhanced Linux (SELinux) behavior of a system to keep it secure in case of a network service compromise.

Unit 8: Connect to network-defined users and groups
Configure systems to use central identity management services.

Unit 9: Add disks, partitions, and file systems to a Linux system
Manage simple partitions and file systems.

Unit 10: Manage logical volume management (LVM) storage
Manage logical volumes from the command line.

Unit 11: Access networked attached storage with network file system (NFS)
Access (secure) NFS shares.

Unit 12: Access networked storage with SMB
Use autofs and the command line to mount and unmount SMB file systems.

Unit 13: Control and troubleshoot the Red Hat Enterprise Linux boot process

Unit 14: Limit network communication with firewall
Configure a basic firewall.

Unit 15: Comprehensive review
Practice and demonstrate knowledge and skills learned in this course.

Course Outline SA-III (254)

Unit 1: Control services and daemons
Review how to manage services and the boot-up process using systemctl

Unit 2: Manage IPv6 networking
Configure and troubleshoot basic IPv6 networking on Red Hat Enterprise Linux systems

Unit 3: Configure link aggregation and bridging
Configure and troubleshoot advanced network interface functionality including bonding, teaming, and local software bridges

Unit 4: Control network port security
Permit and reject access to network services using advanced SELinux and firewalld filtering techniques

Unit 5: Manage DNS for servers
Set and verify correct DNS records for systems and configure secure DNS caching

Unit 6: Configure email delivery
Relay all email sent by the system to an SMTP gateway for central delivery

Unit 7: Provide block-based storage
Provide and use networked iSCSI block devices as remote disks

Unit 8: Provide file-based storage
Provide NFS exports and SMB file shares to specific systems and users

Unit 9: Configure MariaDB databases
Provide a MariaDB SQL database for use by programs and database administrators

Unit 10: Provide Apache HTTPD web service
Configure Apache HTTPD to provide Transport Layer Security (TLS)-enabled websites and virtual hosts

Unit 11: Write Bash scripts
Write simple shell scripts using Bash

Unit 12: Bash conditionals and control structures
Use Bash conditionals and other control structures to write more sophisticated shell commands and scripts

Unit 13: Configure the shell environment
Customize Bash startup and use environment variables, Bash aliases, and Bash functions

Unit 14: Linux containers preview
Preview the capabilities of Linux containers, Docker, and other related technologies in Red Hat Enterprise Linux 7

Unit 15: Comprehensive review
Practice and demonstrate knowledge and skills learned in Red Hat System Administration III