



LINUX SERVER ADMINISTRATION

Course Outline

- **Get started with Linux**
 - Describe and define open source, Linux distributions, and 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 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.
- **Monitor and manage Linux processes**
 - Evaluate and control processes running on a 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 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 exercises.
 - Run commands more efficiently by using advanced features of the bash shell, shell scripts, and various utilities provided by 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 Linux**
 - Install Linux on servers and virtual machines.
- **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.