



Red Hat System Administration I

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Lecture 10

Agenda

- **Chapter 15: Comprehensive Review**

Goal	Review tasks from <i>Red Hat System Administration I</i> .
Objectives	• Review tasks from <i>Red Hat System Administration I</i>.
Sections	• Comprehensive Review

Chapter 1, *Get Started with Red Hat Enterprise Linux*

Define open source, Linux, Linux distributions, and Red Hat Enterprise Linux.

Explain the purpose of open source, Linux, Linux distributions, and Red Hat Enterprise Linux.

Chapter 2, *Access the Command Line*

Log in to a Linux system and run simple commands from the shell.

- Log in to a Linux system and run simple commands from the shell.
- Log in to the Linux system with the GNOME desktop environment to run commands from a shell prompt in a terminal program.
- Save time when running commands from a shell prompt with Bash shortcuts.

Chapter 3, *Manage Files from the Command Line*

Copy, move, create, delete, and organize files from the Bash shell.

- Describe how Linux organizes files, and the purposes of various directories in the file-system hierarchy.
- Specify the absolute location and relative location of files to the current working directory, determine and change the working directory, and list the contents of directories.
- Create, copy, move, and remove files and directories.
- Create multiple file name references to the same file with hard links and symbolic (or "soft") links.
- Efficiently run commands that affect many files by using pattern matching features of the Bash shell.

Chapter 4, *Get Help in Red Hat Enterprise Linux*

Resolve problems by using local help systems.

Find information in local Linux system manual pages.

Chapter 5, *Create, View, and Edit Text Files*

Create, view, and edit text files from command output or in a text editor.

- Save output or errors to a file with shell redirection, and process command output through multiple command-line programs with pipes.
- Create and edit text files from the command line with the `vim` editor.
- Set shell variables to run commands, and edit Bash startup scripts to set shell and environment variables to modify the behavior of the shell and programs that are run from the shell.

Chapter 6, *Manage Local Users and Groups*

Create, manage, and delete local users and groups, and administer local password policies.

- Describe the purpose of users and groups on a Linux system.
- Switch to the superuser account to manage a Linux system, and grant other users superuser access through the `sudo` command.
- Create, manage, and delete local user accounts.
- Create, modify, and delete local group accounts.
- Set a password management policy for users, and manually lock and unlock user accounts.

Chapter 7, *Control Access to Files*

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

- List file-system permissions on files and directories, and interpret the effects of those permissions on access by users and groups.
- Change the permissions and ownership of files with command-line tools.
- Control the default permissions of user-created files, explain the effects of special permissions, and use special and default permissions to set the group owner of files that are created in a directory.

Chapter 8, *Monitor and Manage Linux Processes*

Evaluate and control processes that run on a Red Hat Enterprise Linux system.

- Determine status, resource use, and ownership of running programs on a system, to control them.
- Use Bash job control to manage multiple processes that were started from the same terminal session.
- Use commands to kill and communicate with processes, define the characteristics of a daemon process, and stop user sessions and processes.
- Define load average and determine resource-intensive server processes.

Chapter 9, *Control Services and Daemons*

Control and monitor network services and system daemons with the `systemd` service.

- List system daemons and network services that the `systemd` service and socket units started.
- Control system daemons and network services with the `systemctl` command.

Chapter 10, *Configure and Secure SSH*

Configure secure command-line service on remote systems with OpenSSH.

- Log in to a remote system and run commands with `ssh`.
- Configure a user account to use key-based authentication to log in to remote systems securely without a password.
- Disable direct logins as `root` and password-based authentication for the OpenSSH service.

Chapter 11, *Manage Networking*

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

- Fundamental concepts of network addressing and routing for a server.
- Test and inspect the current network configuration with command-line utilities.
- Manage network settings and devices with the `nmcli` command.
- Modify network configuration by editing configuration files.
- Configure a server's static hostname and its name resolution and test the results.

Chapter 12, *Install and Update Software Packages*

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

- Register a system to your Red Hat account and assign it entitlements for software updates and support services with Red Hat Subscription Management.
- Explain how software is provided as RPM packages, and investigate the DNF and RPM installed system packages.
- Find, install, and update software packages with the `dnf` command.
- Enable and disable server use of Red Hat or third-party DNF repositories.

Chapter 13, *Access Linux File Systems*

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

- Identify a directory in the file-system hierarchy and the device where it is stored.
- Access the contents of file systems by adding and removing file systems in the file-system hierarchy.
- Search for files on mounted file systems with the `find` and `locate` commands.

Chapter 14, *Analyze Servers and Get Support*

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

- Activate the web console management interface to remotely manage and monitor the performance of a Red Hat Enterprise Linux server.
- Describe and use the Red Hat Customer Portal key resources to find information from Red Hat documentation and the Knowledgebase.
- Use Red Hat Insights to analyze servers for issues, remediate or resolve them, and confirm that the solution worked.

End of Chapter 15

*Thank
you*

