



Red Hat Enterprise Linux 9

RHCSA-SA1 LAB-Book

Chapter 14 - Installing and Updating Software Packages

Software Packages and RPM:

RPM package files names consist of four elements (plus the .rpm suffix): name-versionrelease.architecture:

coreutils-8.30-4.el8.x86_64.rpm			
Name	Version	Release	Arch

NAME is one or more words describing the contents (coreutils).

VERSION is the version number of the original software (8.30).

RELEASE is the release number of the package based on that version, and is set by the packager, who might not be the original software developer (4.el8).

ARCH is the processor architecture the package was compiled to run on. noarch indicates that this package's contents are not architecture-specific (as opposed to x86_64 for 64-bit, aarch64 for 64-bit ARM, and so on).

RPM: Redhat Package Manager

1)To install packages using RPM:

→ **Command:** rpm -ivh packagefilename.rpm

→ **Command:** wget packagenamefile

2)To check whether that package is installed or not?

→ **Command:** uname -r

3)To know the currently installed packages:

→Command: rpm -q yum

4)What package provides filename?

→Command: rpm -qf /etc/yum.repos. d

5)To fetch or see the information about content of packages / list the content from that package:

→Command: rpm -q -l yum packagename

6)To list just the config files

→Command: rpm -q -c yum packagename

7)To list out the documentation files:

→Command: rpm -q -d yum packagename

8)To list all installed packages:

→Command: rpm -qa

9)To get the detailed information about the packages:

→Command: rpm -qi

10) List the files installed by the package:

→Command: rpm -ql

11) List just the configuration files installed by the package:

→ Command: rpm -qc yum / openssh-clients

12) List just the documentation files installed by the package:

→ Command: rpm -qd openssh-clients

13) List shell scripts that run before or after the package is installed or removed:

→ Command: rpm -q --scripts openssh-server

14) list change information for the package

→ Command: rpm -q --changelog audit

YUM: Yellodog Updater Modified

1) yum local install / install packagefilename.rpm

→ Command: yum install wonderwidgets-1.0-4.x86_64.rpm

2) yum install PACKAGENAME obtains and installs a software package, including any dependencies

→ Command: yum install nfs* -y / yum install httpd

3) yum list displays installed and available packages

→ Command: yum list 'http*'

4) **yum search KEYWORD** lists packages by keywords found in the name and summary fields only. To search for packages that have “web server” in their name, summary, and description fields,

use search all:

➔ **Command:** yum search all 'web server'

5) **yum info PACKAGENAME** returns detailed information about a package, including the disk space needed for installation.

➔ **Command:** yum info httpd

6) **yum provides PATHNAME** displays packages that match the path name specified (which often include wildcard characters).

➔ **Command:** yum provides /var/www/html

7) **yum update PACKAGENAME** obtains and installs a newer version of the specified package, including any dependencies.

➔ **Command:** sudo yum update

8) **yum remove PACKAGENAME** removes an installed software package, including any supported packages.

➔ **Command:** sudo yum remove httpd

Summary of RPM and YUM Commands:

COMMAND	TASK
<code>rpm -qa</code>	List all RPM packages currently installed
<code>rpm -q NAME</code>	Display the version of NAME installed on the system
<code>rpm -qi NAME</code>	Display detailed information about a package
<code>rpm -ql NAME</code>	List all files included in a package
<code>rpm -qc NAME</code>	List configuration files included in a package
<code>rpm -qd NAME</code>	List documentation files included in a package
<code>rpm -q --changelog NAME</code>	Show a short summary of the reason for a new package release

COMMAND	TASK
<code>rpm -q --scripts NAME</code>	Display the shell scripts run on package installation, upgrade, or removal

TASK:	COMMAND:
List installed and available packages by name	<code>yum list [NAME-PATTERN]</code>
List installed and available groups	<code>yum group list</code>
Search for a package by keyword	<code>yum search KEYWORD</code>
Show details of a package	<code>yum info PACKAGENAME</code>
Install a package	<code>yum install PACKAGENAME</code>
Install a package group	<code>yum group install GROUPNAME</code>
Update all packages	<code>yum update</code>
Remove a package	<code>yum remove PACKAGENAME</code>
Display transaction history	<code>yum history</code>

Enabling Red Hat Software Repositories:

Configure your YUM Repository so that you can download Packages from

http://content.example.com/rhel8.2/x86_64/dvd/BaseOS/

http://content.example.com/rhel8.2/x86_64/dvd/AppStream/



Step 1: yum repolist all

Step 2: yum clean all

Step 3: yum update

Step 4: vi /etc/yum.repos.d/rhel_dvd_repo

Step 5: Hit “Insert + I” from keyboard and start typing below Command

s[RHCSA]

Name=sample

baseurl=http://content.example.com/rhel8.2/x86_64/dvd/BaseOS/

enabled=1

gpgcheck=0

[RHCE]

Name=sample

baseurl=http://content.example.com/rhel8.2/x86_64/dvd/AppStream/

enabled=1

gpgcheck=0

Step 6: Save and exit using Ex:wq! Command

Step 7: yum clean all

Step 8: yum update

Step 9: yum repolist all

Note: In Global Exam do not perform below two commands:

Commands: yum clean all and yum update.

END