Ex. 12   **Package Management**

Aim:

       To maintain, query, build, and verify the packages using RPM command.

Procedure:

Syntax for the rpm command: **rpm options rpm-package-name** (rpm-package-name is the name of the software package to be installed)

1.   <u>Maintaining packages</u>

      a) Installing new ones

rpm -ioptions package-file -   Installs a package; the name of the package file is required.

Options

--percent	-	Displays percentage of package during installation.
--replacepks	-	Installs an already-installed package.
--replacefiles	-	Replaces files installed by other packages.
--redhatprovides dependent-files	-	Searches for dependent packages
.--oldfiles	-	Installs an older version of a package already installed.
--test	-	Tests installation; does not install, checks for conflicts.
-h	-	Displays # symbols as package is installed.
--excludedocs	-	Excludes documentation files.
--nodeps	-	Installs without doing any dependency checks
--force	-	Forces installation despite conflicts (dangerous).

b) <u>Upgrading to new versions</u>

rpm -Uoptions package-name -   Upgrades; same as install, but any previous
                                         version is removed.

rpm -Foptions package-name -   Upgrades, but only if package is currently
                                          installed.

c) <u>Uninstalling packages</u>

rpm -eoptions package-name -   Uninstalls (erases) a package; you only   need the
                                          name of the package, often one word.

Options

--test   -   Tests uninstall. Does not remove, only checks for
                                          what is to be removed.
--nodeps   -   Uninstalls without checking for dependencies.
--allmatches   -   Removes all versions of package.

2. <u>Querying packages</u>

rpm -qoptions package-name   -   Queries a package. An option can be a
                                         package name, a further option and package
                                         name, or an option

   Options

-qa   -   Queries all packages.
-qf   -   filename Queries package that owns filename

-qR   -   List packages on which this package depends.
-qp   -   package-name Queries an uninstalled package.
-qi   -   Displays all package information.

-ql	-	Lists files in package.
-qd	-	Lists only documentation files in package.
-qc	-	Lists only configuration files in package.
-q --dump	-	Lists only files with complete details.

Query Options for RPM Packages

-qpi RPM-file	-	Displays all package information in the RPM package.
-qpl RPM-file	-	Lists files in the RPM package.
-qpd RPM-file	-	Lists only documentation files in the RPM package.
-qpc RPM-file	-	Lists only configuration files in the RPM package
-qpR RPM-file	-	Lists packages on which this RPM package depends.

3. <u>Verifying the rpm package</u>

rpm –verify options   -   Verifies a package is correctly installed; uses same options as query. You can use -V or -y in place of -verify

4. <u>General Options (to be used with any option)</u>

-vv	-	Debugs; displays descriptions of all actions taken.
--quit	-	Displays only error messages.
--version	-	Displays RPM version number.
--help	-	Displays detailed use message.
--rootdirectory	-	Uses directory as top-level directory for all operations (instead of root).
--dbpathdirectory	-	Uses RPM database in the specified directory.
--dbpath cmd	-	Pipes output of RPM to the command cmd.

--rebuilddb - Rebuilds the RPM database; can be used with the -root and -dbpath options.

--initdb - Builds a new RPM database; can be used with the -root and -dbpath options