

Linux Day 4 Notes

❖ Package Management :

In windows, we have software (.exe, .msi) but in Linux, we have packages (.rpm, .deb, .dpkg..)

Name of the package:

- pkgname-version-release-architecture.rpm
Architecture:
 - 32bit = i686
 - 64bit = x86_64
 - no architecture = noarch

Task 1

Q1. How to list the packages that can be only installed on 64bit architecture:

Ans : # ls *x86_64* | wc -l

```
[root@svr Packages]# ls *x86_64* | wc -l
2665
[root@svr Packages]#
```

Q2. How to list the packages that can be only installed on 32bit & 64bit (noarch):

Ans : # ls *noarch* | wc -l

```
[root@svr Packages]# ls *noarch* | wc -l
1405
[root@svr Packages]#
```

Commands in Package Management:

1. Install
2. Update
3. Query / Info
4. Uninstalling

Types of Package Manager:

1.RPM

- Redhat Package Manager
- It is the default package manager in CentOS & Redhat OS
- It is used for offline installation.

2.YUM

- Yellowdog Update Manager / Yellowdog Updater Modifier
- It is a part of CentOS & Redhat OS.
- It is used for both offline installation & online installation

3.APT

- Advance Packaging Tool
- It is generally used in Ubuntu, Kali Linux and Backtrack OS.

4.DPKG

- Debian packaging
- Used in Kali Linux, Backtrack OS.

5.DNF

- Dandified YUM
- It is a part of RHEL 8, CentOS8.

1.RPM Server:

Installation:

- `# rpm -ivh <full-path-of-package>.rpm`
i = install
v = verbose
h = hashing

Update:

- `# rpm -Uvh <new-package-name>.rpm`
U = update
V= verbose
H= hashing

Query / Info:

- `# rpm -q <package-name>`
- `# rpm -qa`

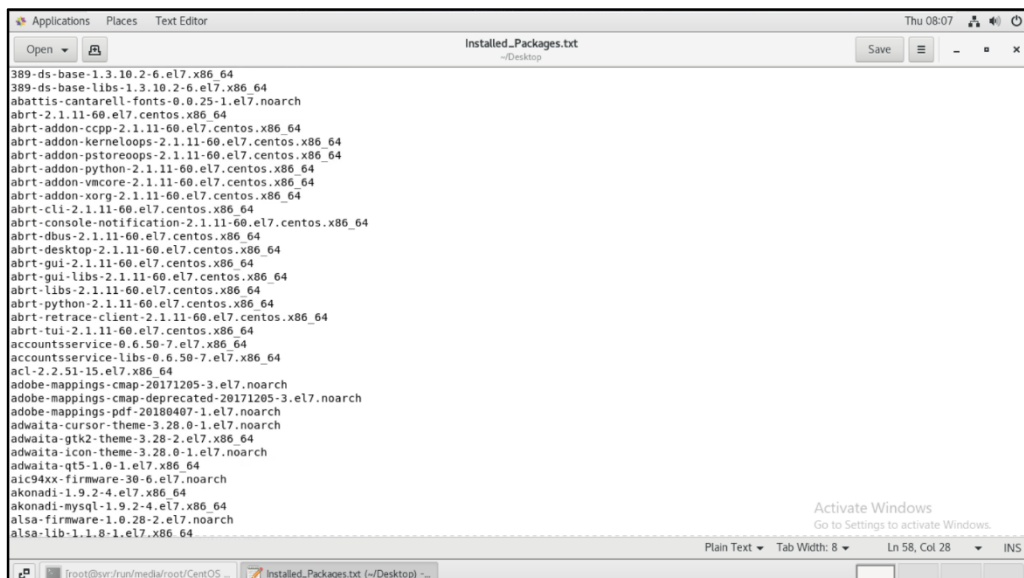
Uninstalling:

- `# rpm -e <package-name>`

Task:

1.List all installed packages on ur system & save them in a text file.

Ans. `# rpm -qa | sort > /root/Desktop/Installed_Packages.txt`



NOTE: To sort in descending order you can use :

`# rpm -qa | sort -r > /root/Desktop/Installed_Packages.txt`

Installing packages online:

- RHN (RedHat Network)
 - RedHat Satellite server (PAID) --> production solution
- Mirror server in Centos
 - online server to install pkgs. (free)

RPM has 3 issues:

1. Full name
2. Need to write total Path of the package
3. Dependency Errors occur

2.YUM Server:

Installation

```
# yum install <package-name>
# yum install <package-name> -y
```

Update

```
# yum update -y
```

Query / Info

```
# yum info <package-name>
```

Uninstalling

```
# yum remove <package-name> -y
```

Task:

1. Verify if these packages are installed or not. then,
2. Install the following packages using RPM.
 - vsftpd
 - ftp
 - telnet
 - php

Note: if any package shows dependency error, by pass it.

Ques: How to add alias permanently on linux?

to find/search a file or directory, we have:

1. find

```
# find <where-to-find> <option> <name>
```
2. locate
 - it's a database
 - cmd that needs to be execute before locate:

```
# updatedb
```
 - ```
locate <filename>
```

### **❖ Network Management:**

#### 1. CLI

- nmcli
  - Network Manager Command Line Interface
- nmtui
  - Network Manager Text User Interface
- ip address
- ifconfig
- /etc/sysconfig/network-scripts/ifcfg-ens33

#### 2. GUI

- Network settings.

### ❖ Service Management:

- It manages the services on Linux machine.
- Actions:
  - start
  - stop
  - restart
  - enable
  - disable
  - is-active
- Service-name ( d = daemon ) :
  - httpd
  - vsftpd
  - named
  - sshd
- Old syntax:
  - # service <service-name> <action>
- New syntax:
  - # systemctl <action> <service-name>

### ❖ Storage Managment:

- 
- Disk Management
  - Adding the disk:
    1. Simple Disk Partitioning (SDP)
    2. LVM partitioning
  - cmds:
    1. df -h
    2. du -sh /\*
    3. lsblk
    4. fdisk
      - # fdisk -l /dev/sda

#### Simple Disk Partitioning:

1. Add the disk to the linux
2. Create the partition
3. Create the mount point
4. Create the file system
5. Mount the partition & verify.