RHSA1

Red hat System Administration 1

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Course Plan

Day 05

- Inode table
- Hard link and Soft link
- Rpm and Yum
- Search
- Compressing and Archiving
- LAB 5

Notes
Before LAB

Hard link and soft link

Ln <path to existing file> <new file>

Ls –l

The dir (minimum 2 hard link . and ..)

Must be in the same file system

Ln –s <path to existing file> <new file>

Ls –l

Inode

Ls –i filename

Ls –id dir

Yum

Basic commands: **/etc/yum.repos.d** **/etc/yum.conf**

yum search somefile	(look for the package)
yum list somefile	(get installed and available versions)
yum list installed	(same as rpm qa)
yum list available	(what's available in repository)
yum grouplist "some search string"	(look for like packages to search string)
yum install somefile	(install the package and any dependencies)
yum localinstall /path/ somefile	(yum install off local media)
yum remove somefile	(uninstall the package)
yum upgrade somefile	(upgrade the package removing prior versions)
yum update somefile	(update the package keeping prior version)
yum provides somefile	(what packages are associated with a file)
yum repolist all	(list defined repositories)
yum clean all	(clean yum download)

Find and locate

The locate command searches through a pre built database containing the contents of your filesystem at the time the database was last updated.

#updated #locate file

Find command
The find command locates files by performing a real-time search in the file-system hierarchy. It is slower than locate, but more accurate.

It can also search for files based on criteria other than the file name, such as the permissions of the file, type of file, its size, or its modification time. he search using the user account that executed the search. this user must have the x permission to cd to dirs

#find / -name '*.txt‘ **FIND WHERE WHAT**

#man find

Find cont..

```
#find   /     -name sshd_config          ##To search for files by file name
#find   /     -name '*.txt‘
#find /etc  -name '*pass*'
#find   /     -iname '*messages*‘        ##To perform a case-insensitive search
#find   /     -user user                 ##Search for files owned by user
#find   /     -group user                ##Search for files owned by the group user
#find   /     -uid 1000                  ##Search for files owned by user ID 1000
#find   /      -gid 1000                 ##Search for files owned by group ID 1000
# find /home -perm 764
#find -size 10M                  to search for files with a size of 10 megabytes, rounded up.
#find -size +10G                 To search the files with a size more than 10 gigabytes.
#find -size -10k                 To list all files with a size less than 10 kilobytes.
# find /etc -type d              search for dirs under /etc/
# find /etc -type f              search for files under /etc/
#find / -type l                  Search for all soft links on host.
```

Compressing

Compress: only one file and reduce the size

#gzip file

#gunzip file

#bzip2 file

#bunzip2 file

Note that gzip is faster but bzip2 is smaller

Ls –lh to list the size in human readable way

Archiving

Archiving: archive n of files/dirs in one file

Tar command with no – when using options

C create **f** filename **t** view/list **V** verbose **x** extract **z** compress gzip way **j** compress bzip2

Note that tar command can compress and archive

tar cvf file.tar file1 file2 file3	archive 3 files
tar tf file.tar	view an archive
tar xvf file.tar	extracting files

LAB 05

1. Compress a file by gzip and bzip2 commands and decompress it again. State the differences between two commands.
2. What is the command used to view the content of a compressed file.
3. Backup /etc directory using tar utility.
4. Starting from your home directory, find all files that were modified in the last two day.
5. Starting from /etc, find files owned by root user.
6. Find all directories in your home directory.
7. Write a command to search for all files on the system that, its name is “.profile”.
8. Identify the file types of the following: /etc/passwd, /dev/pts/0, /etc, /dev/sda
9. List the inode numbers of /, /etc, /etc/hosts.
10. Copy /etc/passwd to your home directory, use the command diff and Edit in the file you copied, and then use the command again, and check the output.
11. Create a symbolic link of /etc/passwd in /boot.
12. Create a hard link of /etc/passwd in /boot. Could you? Why?