UNIX

Lesson 12 : Miscellaneous Commands

Lesson Objectives

- In this lesson, you will learn:
  - Filters
  - Hard link and soft link
  - File Compression
  - Disk utility command

12.1: Creating alias
alias & unalias

- Defined a new name for a command
- $ alias
- with no arguments lists currently active aliases
- $ alias newcommand oldcommand
- defines a newcommand
- $ alias cl cal 2003
- $ cl
- Unalias Removes alias
- Requires an argument.
- $ unalias cl

12.2: filters
who Command

who Command:

- To list all users who are currently logged in
- Example:

```
$who
```

- **Output:**

```
ssdesh   ttyp0        Mar 29 09:00
root     tty01        Mar 29 10:32
root     tty03        Mar 29 10:37
```

$who am I Command:

- To see the current user

paste Command

The paste command is used for horizontal merging of files.

```
$paste <file1><file2><Enter>
```

- Options : -d (Field delimiter)

- **Example 1:** To paste enum.lst and ename.lst files:

```
$ paste enum.lst ename.lst
```

- **Example 2:** To paste enum.lst and ename.lst files with ‘|’ character as delimiter:

```
$ paste –d’l’ enum.lst ename.lst
```

head command

head

- displays the first n lines of a file

```
head sample       - display first 10 lines (default)
head -5 sample    - display first 5 lines
head -25 sample   - display first 25 lines
```

tail command

- displays the last n lines or n characters of a file
- Examples

```
tail sample       - display last 10 lines (default)
tail -5 sample          - display last 5 lines
tail -5c sample  - display last 5 characters
tail -25 sample  - display last 25 lines
```

locate

- Locate command used to search location of file.
- 'locate' will work in a off line mode.
- locate simply looks its database and reports the file location.
  - Eg: locate perl

finger

- Is user for user information lookup
- Finger tells you personal information about a user, possibly including real name, office location, and office phone number

Eg: **finger abc**

bc – Best Calculator

The calculator bc is triggered once you type bc at the prompt.

```
$ bc
10/2*2
10
2.5*2.5+2
8.25
quit
```

```
$ bc
ibase = 2
obase = 16
11010011
89275
1010
A
quit
```

```
$ bc -l
sqrt(196)
14
s(3.14)
0
c(3.14)
-1
quit
```

```
$ bc
for(i=1;i<=5;i=i+1)i
1
2
3
4
5
quit
```

expr – Another Computation Utility

- **The almighty bc need not be beseeched for analyzing a simple expression here or a formula there.**
- **$ expr 100+50**
- **150**
- **$ expr 3*2   => \ takes away the special meaning of ***
- **6   (always expand to all files in current directory)**

- **Floating point arithmetic can't be handled. In such cases we have no recourse but to invoke bc.**

factor

- **Print the prime factors of all specified integer NUMBERs.**

- **If no arguments are specified on the command line, they are read from standard input.**

- **$ factor**
- **15**
- **15: 3 5**
- **28**
- **28: 2 2 7**

12.3: Creating links
Hard link and Soft link

- Soft link or symbolic links–
  - Similar to shortcut in windows
  - Symbolic links doesn’t contain any information about the destination file
  - It simply contains the pointer to the location of the destination fileb for back,
    - Eg: ln -s /usr/bin/gedit ~/Desktop/gedit
- Hard link –
  - A hard link then just creates another file with a link to the same underlying inode.
  - When you delete a file it removes one link to the underlying inode
    - Eg: ln /usr/bin/gedit ~/Desktop/gedit

12.4: Browsing file more

- more –
  - browses/displays files one screen at a time.
  - Use h for help,
  - spacebar to page,
  - b for back,
  - q to quit,
  - /string to search for string
    - Eg: **more sample.f**

less

- less–
  - browses/displays files one screen at a time.
  - Allows backward and forward movement.
  - Use h for help,
  - spacebar to scroll forward.
  - b scroll back.
  - /string to search for string
    - Eg: **less sample.f**

12.5: File compression
Compression

- Compresses files to save disk space.
- $ compress –v trial.txt
- Trial.txt: Compression: 43.21% - replaced with trial.txt.Z

- To uncompress
- $uncompress trial.txt.Z => Original file is created trial.txt.

- Pack is also another compression technique
- $ pack trial.txt
- Pack: trial.txt: 37.1% compression

- To unpack
- $ unpack trial.txt.z
- Unpack: trial.txt: unpacked

File compression

- **gzip (GNU zip) is a compress tool**
- **$ gzip dump.doc => Create compressed file dump.doc.gz**

- **To uncompress (gunzip)**
- **$ gunzip dump.doc.gz => Uncompress and creates original file dump.doc**

- **bzip2 is block-sorting file compressor**
- **$ bzip2 dump.doc => create compressed file dump.doc.bz2**

- **To uncompress (bunzip2)**
- **$ bunzip2 dump.doc.bz2 => Uncompress and creates original file dump.doc**

12.6: Disk utility command
Commands

df-

- **If we want to see how much of the disk is being used and what part of it lies free.**
- **Reports free as well as used disk space for all file systems installed on your system.**
- **E.g.**

```
        $ df

         Filesystem     1K-blocks    Used      Available    Use% Mounted on
         /dev/unix       564762560  15647148  520427096    3%      /

         $ df –iv

         Filesystem        Inodes    IUsed   Ifree         IUse% Mounted on
         /dev/unix      71729152  116771  71612381    1%          /
```

Disk Utility commands

d**u (disk usage)**

- **Reports disk space used by specified files and directories**
- **E.g.**

```
$ du
226   ./backup
418   ./SA/backup
1182  ./SA
```

SUMMARY

➢In this lesson, you have learnt:

- Filters like head,tail,etc
- Creating links to a file
- Compressing and uncompressing of file
- Disk usage

Review Questions

- Question 1: How to check disk space?
- Question 2: ______ command used to display first 10 lines ?
- Question 3:Which command we use for compressing file?