

ASSIGNMENT 1 - Basic Linux Commands

Exp No. 1

Date : 05-02-2018

Aim : To familiarise with basic linux commands

1. cat

Purpose : Sends file contents to standard output. To view content of file in terminal

Usage : cat <filename>

eg.

input : cat hello.txt

output : Hello World (the content of the file hello.txt will display)

2. cd

Purpose : To change directory

Usage : cd <directory path>

eg.

input : cd Desktop

output : /home/s1767/Desktop (directory changed into desktop)

3. cd /home

Purpose : To change working directory into home

Usage : cd /home

eg.

input : cd /home

output : /home (directory changed into home)

4. cd ..

Purpose : To change working directory into parent directory

Usage : cd ..

eg.

input : cd ..

output : ~/Desktop/s4\$ cd ..

~/Desktop\$

directory will change to parent directory of current directory

5. cd ~

Purpose : To change working directory into root directory

Usage : cd ~

eg.

input : cd ~

output : ~/Desktop\$ cd ~

~\$

directory changed into root directory

6. cp

Purpose : To copy files and directories to another directory

Usage : cp <source file/directory> <destination file/directory>

eg.

input : cp example1.txt example2.txt

output : ~/Desktop/s4\$ touch a.txt

~/Desktop/s4\$ cp a.txt b.sh

~/Desktop/s4\$ ls

a.txt b.sh

If there is no existing file in the folder then create a new file named

If example2.txt already exists, the content of example2.txt is overwritten.

7. cp -i

Purpose : -i used to prompt a warning dialogue before overwrite

Usage : cp <source file/directory> <destination file/directory>

eg.

input : cp -i example1.txt example2.txt

output : ~/Desktop/s4\$ cp -i b.sh a.txt

cp: overwrite 'a.txt'? y

~/Desktop/s4\$ ls

a.txt b.sh

If example2.txt is already exists, a prompt will display before overwrite.

8. dd

Purpose : convert and copy a file

Usage : dd <source file path> <destination file path>

eg.

input : dd if="/Desktop/s3/a.txt" of="/Desktop/s4/b.doc"

output : 0+1 records in

0+1 records out

3 bytes copied, 0.000197546 s, 15.2 kB/s

(content in file a.txt will saved into b.doc)

9. ln

Purpose : creates links between files

Usage : ln <file1> <file2>

eg.

input : ls example1.txt example2.txt

output : ~/Desktop/s4\$ ln a.txt c.doc

~/Desktop/s4\$ ls

a.txt b.sh c.doc

This will create link to c.doc from a.txt

10. locate

Purpose : To find files in the system or to locate path of a file

Usage : locate <file_name>

eg.

input : locate example1.txt

output : /home/s1767/Desktop/s3/

11. ls

Purpose : list files and folders in the current directory. '-l' is used to show ownership properties and '-a' is used to all files including hidden

Usage : ls [-l] [-a]

eg.

input : ls

output : Desktop Downloads Music Public Video Documents Pictures Template

input : ls -la

output : ~/Desktop/s4\$ ls -la

drwxr-xr-x 2 s1767 4096 Feb 14 20:58 .

drwxr-xr-x 3 s1767 4096 Feb 14 20:25 ..

-rwxr-xr-x 2 s1767 0 Feb 14 20:56 a.txt

-rw-r--r-- 1 s1767 0 Feb 14 20:54 b.sh

12. mv

Purpose : Move the file or directory into some oth directory

Usage : locate <file/directory_name> <destination_folder>

eg.

input : mv example1.txt s4/programs/

output : ~/Desktop/s4\$ mv a.txt new/

~/Desktop/s4\$ ls new/

a.txt

file example1.txt moved into programs folder

13. pwd

Purpose : show present working directory

Usage : pwd

eg.

input : pwd

output : /home/s1767/Desktop/s4

14. logout

Purpose : to logout of a login shell session or secure shell session.

Usage : logout

eg.

input : logout

output : the current login session will be logout

15. shutdown

Purpose : to shutdown the system

Usage : shutdown

eg.

input : shutdown

output : the system will be shutdown

16. Redirecting symbols : > , >> , <

Purpose : To write an output result into a file or read file content into terminal

Usage : These are used with other linux command

eg.

input : ls > filename

output : this will write output of ls command into file

input : cat < file1

output : this will take input for cat command from file named file1

17. Pipelining : |

Purpose : to connect to more commands and give output instead for typing multiple commands.

Usage : <command 1> | <command 2> | <command 3>

eg.

input : ls | sort

output : this will sort the output of the command 'ls' and display in terminal.

bin

boot

dev

etc

home

lib

lost+found
media
mnt
root
sbin
sys
tmp
usr
var

18. sort

Purpose : to sort contents in a file

Usage : sort [-r] <file_name> . -r will sort the contents in reverse order

eg.

input : sort new1

output : file.sh

new.c

sample.py

19. fg

Purpose : to send current job into background

Usage : fg

eg.

input : fg

output : current foreground job will send to background

20. chmod

Purpose : to change permission of a file/directory

Usage : chmod [a,u,g,o][+,-][r,w,x] filenames . 4-write, 2-read, 1-execute

eg.

input : chmod 317 filename

output : --wx--rwx 1 s1767 0 Feb 14 23:57 abc

this will give read & write permission to user, execute permission to other
and read,write & execute permission to others for the file

input : chmod +x file/directory_name

output : -rwxr-xr-x 1 s1767 0 Feb 14 23:57 abc

this will give execute permission to the file/directory

21. touch

Purpose : to create an empty file

Usage : touch <filename>

eg.

input : touch abc.c

output : this create an empty file abc.c

22. rm

Purpose : to delete a file

Usage : rm <filename>

eg.

input : rm abc.c

output : the file abc.c will be removed

23. head

Purpose : to display first 10 lines of a line

Usage : head <filename>

eg.

```
input : head new.c
output : fd
        hai
        hello
        world
        c
        java
        foss
```

24. tail

Purpose : to display last 10 lines of a line

Usage : tail <filename>

eg.

```
input : tail pgm.c
output : for(i=1; i<=rows; ++i)
        {
            for(j=1; j<=i; ++j)
            {
                printf("* ");
            }
            printf("\n");
        }
        return 0;
    }
```

25. man

Purpose : to display description about a command

Usage : man <command>

eg.

```
input : man cls
output : this will display details about ls command

NAME
    ls - list directory contents

SYNOPSIS
    ls [OPTION]... [FILE]...

DESCRIPTION
    List information about the FILES (the current directory by default).
    Sort entries alphabetically if none of -cftuvSUX nor --sort is specified.
    .....
```

26. echo

Purpose : to display a text

Usage : echo <"text">

eg.

```
input : echo "hello world"
output : hello world
```

27. chown

Purpose : to change ownership of a file/folder

Usage : chown <username> <file/folder name>

eg.

```
input : chown user2 pgm1.c
```

output : ownership of pgm1.c is changed to user2

28. history

Purpose : to display previously used commands

Usage : echo <"text">

eg.

input : echo "hello world"

output : 1 sudo apt install vim
2 nmtui
3 ls
4 cd Downloads/
5 cd.....

29. uniq

Purpose : to remove duplicate entries from a sorted list

Usage : uniq <filename>

eg.

input : uniq hello.txt

output : if hello is sorted, then duplicate entries are removed and display distinct entries
file.sh
new.c
sample.py

30. curl

Purpose : to transfer data from or to a server

Usage : curl <url>

eg.

input : curl www.google.com

output : <!doctype html><htmlitemscope=""itemtype="http://schema.org/WebPage" lang="en-IN"><head><meta content="text/html; charset=UTF-8" http-equiv="Content-Type"><meta content="/images/branding/googleg/1x/googleg_standard_color_128dp.png" itemprop="image"><title>Google</title><script nonce="9j7rNq95wN3rd4yO0OoflQ==">(function(){window.google={kEl:'fsFIXIWtEYH.....

31. wget

Purpose : to download file from a url

Usage : wget <url>

eg.

input : wget <http://index-of.es/Programming/C/O'Reilly%20-%20Practical%20C%20Programming.pdf>

output : --2019-02-15 01:10:25--

<http://index-of.es/Programming/C/O'Reilly%20-%20Practical%20C%20Programming.pdf>

Resolving sv4avadt.uploadt.com (sv4avadt.uploadt.com)... 185.191.76.8

Connecting to sv4avadt.uploadt.com (sv4avadt.uploadt.com)|

185.191.76.8|:80... connected.

HTTP request sent, awaiting response... 200 OK

Saving to: 'O'Reilly-Practical-C-Programming.pdf'

[O'Reilly-Practical-C-Programming.pdf](#) 0%[] 602.14K 206KB/s

32. ftp

Purpose : to connect to an FTP server, up- and download files and create directories.

Usage : ftp <url>

eg.

Input : ftp 192.168.0.1

output : Connected to 192.168.0.1

220 Welcome to ftp service

Name(192.168.0.1:localuser):

33. ssh

Purpose : for logging into a remote machine and for executing commands on a remote machine.

Usage : ssh <host ip>

eg.

Input: ssh 192.168.99.5

output : a secure encrypted connection between two systems will be created

34. grep

Purpose : The grep filter searches a file for a particular pattern of characters, and displays all lines that contain that pattern.

Usage : grep <"character(s)"> <filename>

eg.

Input: grep "printf" star.c

output : ~/Desktop\$ grep "printf" star.c

printf("Enter number of rows: ");

printf("* ");

printf("\n");

The input will display all the lines which include the string "printf" in the file named star.c

35. tree

Purpose : to displaying current directory structure in tree format

Usage : tree

eg.

Input : tree

output :

```
├── a.c
├── commands.txt
├── file1.sh
├── abc.sh
├── s4
│   ├── c.doc
│   └── new
│       ├── a.txt
│       └── b.sh
```

Conclusion

Familiarised with basic linux commands and its interpretations.