



Mawlana Bhashani Science and Technology University

Lab-Report

Lab Report No: 11

Lab Report Name: Basic Command of Linux Operating System

Course code: ICT-3110

Course title: Operating System Lab

Date of Performance:

Date of Submission: 13/09/2020

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Session: 2017-2018
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Lab Report No: 02

Name of the Lab Report: Basic Command of Linux Operating System

1. What is Linux command?

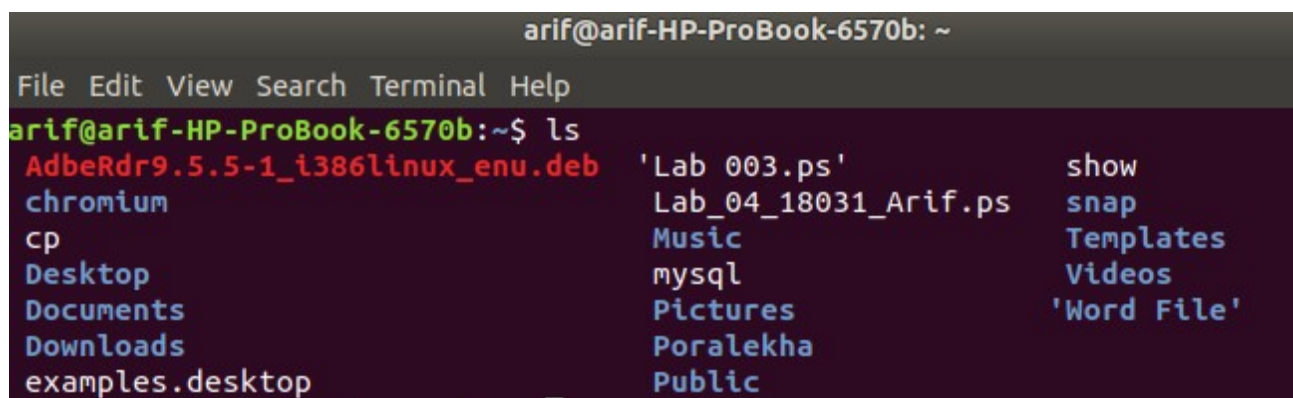
Answer: Linux is a Unix-Like operating system. All the Linux/Unix commands are run in the terminal provided by the Linux system. This terminal is just like command prompt of Windows OS. Linux/Unix commands are *case-sensitive*. The terminal can be used to accomplish all Administrative tasks. This includes package installation, file manipulation, and user management. Linux terminal is user-interactive. The terminal outputs the results of commands which are specified by the user itself.

2. Describe the operation of Linux basic command(screenshot)

Answer :The operation of basic Linux command is given below :

1) ls : ls command is used for listing contents of a directory. It works as dir command.

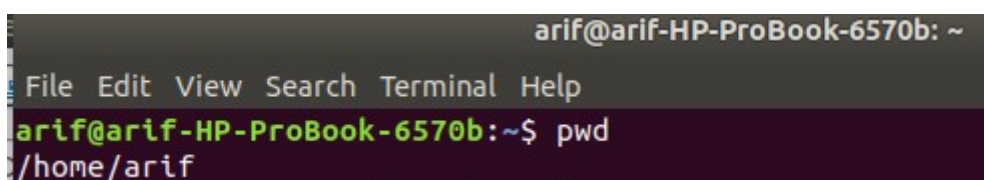
Example :



```
arif@arif-HP-ProBook-6570b: ~  
File Edit View Search Terminal Help  
arif@arif-HP-ProBook-6570b:~$ ls  
AdbeRdr9.5.5-1_i386linux_enu.deb 'Lab 003.ps' show  
chromium Lab_04_18031_Arif.ps snap  
cp Music Templates  
Desktop mysql Videos  
Documents Pictures 'Word File'  
Downloads Poralekha  
examples.desktop Public
```

2) pwd : pwd command displays the name of current/working directory as below.

Example:



```
arif@arif-HP-ProBook-6570b: ~  
File Edit View Search Terminal Help  
arif@arif-HP-ProBook-6570b:~$ pwd  
/home/arif
```

3) **chmod:** chmod command is used to change/update file access permissions like this .

Example:

```
Usage: chmod [OPTION]... MODE[,MODE]... FILE...
or: chmod [OPTION]... OCTAL-MODE FILE...
or: chmod [OPTION]... --reference=RFILE FILE...
Change the mode of each FILE to MODE.
With --reference, change the mode of each FILE to that of RFILE.

-c, --changes          like verbose but report only when a change is made
-f, --silent, --quiet  suppress most error messages
-v, --verbose          output a diagnostic for every file processed
--no-preserve-root     do not treat '/' specially (the default)
--preserve-root        fail to operate recursively on '/'
--reference=RFILE      use RFILE's mode instead of MODE values
-R, --recursive        change files and directories recursively
--help                display this help and exit
--version              output version information and exit

Each MODE is of the form '[ugoa]*([-+=]([rwxXst]*|[ugo]))+|[-+=][0-7]+'.

GNU coreutils online help: <http://www.gnu.org/software/coreutils/>
Full documentation at: <http://www.gnu.org/software/coreutils/chmod>
or available locally via: info '(coreutils) chmod invocation'
```

4) **df:** df command is used to show file system disk space usage as follows.

Example:

Filesystem	1K-blocks	Used	Available	Use%	Mounted on
sysfs	0	0	0	-	/sys
proc	0	0	0	-	/proc
udev	479464	0	479464	0%	/dev
devpts	0	0	0	-	/dev/pts
tmpfs	100668	1544	99124	2%	/run
/dev/sda1	30830500	5998968	23242388	21%	/
securityfs	0	0	0	-	/sys/kernel/security
tmpfs	503336	0	503336	0%	/dev/shm
tmpfs	5120	4	5116	1%	/run/lock
tmpfs	503336	0	503336	0%	/sys/fs/cgroup
cgroup	0	0	0	-	/sys/fs/cgroup/unified
cgroup	0	0	0	-	/sys/fs/cgroup/systemd
pstore	0	0	0	-	/sys/fs/pstore
cgroup	0	0	0	-	/sys/fs/cgroup/net_cls,net_prio
cgroup	0	0	0	-	/sys/fs/cgroup/hugetlb

5) **du:** du command is used to show disk space usage of files present in a directory as well as its sub – directories .

Example :

```

4.0K    ./Documents
4.0K    ./Templates
4.0K    ./Downloads
12K     ./cache/update-manager-core
20K     ./cache/ibus/bus
24K     ./cache/ibus
4.0K    ./cache/libgweather
4.0K    ./cache/evolution/memos/trash
8.0K    ./cache/evolution/memos
4.0K    ./cache/evolution/tasks/trash
8.0K    ./cache/evolution/tasks
4.0K    ./cache/evolution/addressbook/trash
8.0K    ./cache/evolution/addressbook
4.0K    ./cache/evolution/calendar/trash
8.0K    ./cache/evolution/calendar
4.0K    ./cache/evolution/sources/trash
8.0K    ./cache/evolution/sources
4.0K    ./cache/evolution/mail/trash
8.0K    ./cache/evolution/mail
52K     ./cache/evolution
176K    ./cache/gnome-software/fwupd/remotes.d/lvfs
180K    ./cache/gnome-software/fwupd/remotes.d
184K    ./cache/gnome-software/fwupd
456K    ./cache/gnome-software/odrs
708K    ./cache/gnome-software/shell-extensions

```

6) **mkdir**: mkdir command is used to create single or more directories, if they do not already exist (this can be overridden with the -p option).

Example:

```

mkdir (GNU coreutils) 8.28
Copyright (C) 2017 Free Software Foundation, Inc.
License GPLv3+: GNU GPL version 3 or later <http://gnu.org/licenses/gpl.html>.
This is free software: you are free to change and redistribute it.
There is NO WARRANTY, to the extent permitted by law.

Written by David MacKenzie.

```

7) **passwd** : passwd command is used to create or update passwords for user accounts, it can also change the account or associated password validity period.

Example:

```

Changing password for anika.
(current) UNIX password: 

```

8) **rm** : rm command is used to remove files or directories.

Example:

```
Usage: rm [OPTION]... [FILE]...
Remove (unlink) the FILE(s).

  -f, --force            ignore nonexistent files and arguments, never prompt
  -i                    prompt before every removal
  -I                    prompt once before removing more than three files, or
                        when removing recursively; less intrusive than -i,
                        while still giving protection against most mistakes
  --interactive[=WHEN]  prompt according to WHEN: never, once (-I), or
                        always (-i); without WHEN, prompt always
  --one-file-system     when removing a hierarchy recursively, skip any
                        directory that is on a file system different from
                        that of the corresponding command line argument
  --no-preserve-root    do not treat '/' specially
  --preserve-root       do not remove '/' (default)
  -r, -R, --recursive  remove directories and their contents recursively
  -d, --dir             remove empty directories
  -v, --verbose         explain what is being done
  --help               display this help and exit
  --version            output version information and exit
```

9) **ln** : ln command is used to create a soft link between files using the **-s** flag .

Example :

```
ln (GNU coreutils) 8.28
Copyright (C) 2017 Free Software Foundation, Inc.
License GPLv3+: GNU GPL version 3 or later <http://gnu.org/licenses/gpl.html>.
This is free software: you are free to change and redistribute it.
There is NO WARRANTY, to the extent permitted by law.

Written by Mike Parker and David MacKenzie.
```

10) **tar** : tar command is a most powerful utility for archiving files in Linux.

Example :

```
tar (GNU tar) 1.29
Copyright (C) 2015 Free Software Foundation, Inc.
License GPLv3+: GNU GPL version 3 or later <http://gnu.org/licenses/gpl.html>.
This is free software: you are free to change and redistribute it.
There is NO WARRANTY, to the extent permitted by law.
```

11) **cd** : cd stands for change directory and it does the same as it name stands for.

Example :

```
Desktop    Downloads    Music    Public    Videos
Documents  examples.desktop  Pictures  Templates
```