Mawlana Bhashani Science and Technology University

Lab-Report

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Experiment No:02

Experiment Name:Basic command of Linux operating system

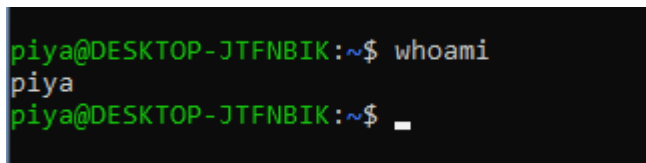## Question:What is Linux command?

Ans:Linux is an operating system's kernel. You might have heard of UNIX. Well, Linux is a UNIX clone. But it was actually created by Linus Torvalds from Scratch. Linux is free and open-source, that means that you can simply change anything in Linux and redistribute it in your own name! There are several Linux Distributions, commonly called "distros".

Question:Describe the operation of Linux basic command

Ans:The operation of basic linux commands are given below:

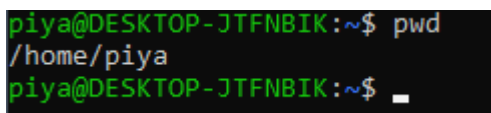1)whoami:whoami command shows who logged on this system

Example:

2)pwd:pwd command shows the path of current working directory

Example:

3)cal:It displays the calendar of the current month

Example:

```
piya@DESKTOP-JTFNBIK:~$ cal
    September 2020
Su Mo Tu We Th Fr Sa
       1  2  3  4  5
 6  7  8  9 10 11 12
13 14 15 16 17 18 19
20 21 22 23 24 25 26
27 28 29 30

piya@DESKTOP-JTFNBIK:~$ _
```

4)date:It displays the current time and date

Example:

```
piya@DESKTOP-JTFNBIK:~$ date
Thu Sep 17 21:58:23 +06 2020
piya@DESKTOP-JTFNBIK:~$ _
```

5)echo:The echo command displays whatever I provide it

Example:

```
piya@DESKTOP-JTFNBIK:~$ echo "operating system"
operating system
piya@DESKTOP-JTFNBIK:~$ _
```

6)tty:This command displays current terminal

Example:

```
/dev/tty1
piya@DESKTOP-JTFNBIK:~$
```

7)id:This command prints user groups(UID and GID) of the current user.If another username is provided as an argument information about that user will be printed.

Example:

```
piya@DESKTOP-JTFNBIK:~$ id
uid=1000(piya) gid=1000(piya) groups=1000(piya),4(adm),20(dialout),24(cdrom),25(floppy),27(sudo),29(audio),30(dip),44(video),46(plugdev),117(netdev)
piya@DESKTOP-JTFNBIK:~$ id root
uid=0(root) gid=0(root) groups=0(root)
piya@DESKTOP-JTFNBIK:~$
```

8)help option:help option shows usage summary of that command

Example:

```
piya@DESKTOP-JTFNBIK:~$ date --help
Usage: date [OPTION]... [+FORMAT]
  or:  date [-u|--utc|--universal] [MMDDhhmm[[CC]YY][.ss]]
Display the current time in the given FORMAT, or set the system date.
```

9)Whatis:This command gives a one line description about the command.It can be used as a quick reference for any command.

Example:

```
piya@DESKTOP-JTFNBIK:~$ whatis date
date (1)              - print or set the system date and time
piya@DESKTOP-JTFNBIK:~$ whatis whatis
whatis (1)            - display one-line manual page descriptions
piya@DESKTOP-JTFNBIK:~$
```

10)ls –l: It displays a long listing of the files.The entries wiyh a'-'are regular files ones with d are directions

Example:

```
piya@DESKTOP-JTFNBIK:~$ ls -l
total 0
drwxr-xr-x 1 piya piya 512 Sep 17 20:24 piya
piya@DESKTOP-JTFNBIK:~$ ls -la
total 8
drwxr-xr-x 1 piya piya  512 Sep 17 20:24 .
drwxr-xr-x 1 root root  512 Sep 15 19:48 ..
-rw------- 1 piya piya  110 Sep 17 20:24 .bash_history
-rw-r--r-- 1 piya piya  220 Sep 15 19:48 .bash_logout
-rw-r--r-- 1 piya piya 3771 Sep 15 19:48 .bashrc
drwxr-xr-x 1 piya piya  512 Sep 15 19:53 .landscape
-rw-r--r-- 1 piya piya    0 Sep 17 20:02 .motd_shown
-rw-r--r-- 1 piya piya  807 Sep 15 19:48 .profile
drwxr-xr-x 1 piya piya  512 Sep 17 20:24 piya
piya@DESKTOP-JTFNBIK:~$ ls -ld
drwxr-xr-x 1 piya piya 512 Sep 17 20:24 .
piya@DESKTOP-JTFNBIK:~$
```

11)mkdir:To create a directory,the mkdir command is used

Example:

```
piya@DESKTOP-JTFNBIK:~$ mkdir exam
piya@DESKTOP-JTFNBIK:~$ ls -l
total 0
drwxr-xr-x 1 piya piya 512 Sep 17 22:48 exam
drwxr-xr-x 1 piya piya 512 Sep 17 22:31 example
-rw-r--r-- 1 piya piya   0 Sep 17 22:40 file1
-rw-r--r-- 1 piya piya   0 Sep 17 22:40 file2
drwxr-xr-x 1 piya piya 512 Sep 17 20:24 piya
```

12)touch:For creating an empty file,touch command is used

Example:

```
piya@DESKTOP-JTFNBIK:~$ touch file3
piya@DESKTOP-JTFNBIK:~$ ls -l
total 0
drwxr-xr-x 1 piya piya 512 Sep 17 22:48 exam
drwxr-xr-x 1 piya piya 512 Sep 17 22:31 example
-rw-r--r-- 1 piya piya   0 Sep 17 22:40 file1
-rw-r--r-- 1 piya piya   0 Sep 17 22:40 file2
-rw-r--r-- 1 piya piya   0 Sep 17 22:48 file3
drwxr-xr-x 1 piya piya 512 Sep 17 20:24 piya
piya@DESKTOP-JTFNBIK:~$
```

13)copy:This command is used to copy files and directories

Example:

```
piya@DESKTOP-JTFNBIK:~$ cp file1 file2 file3 example
piya@DESKTOP-JTFNBIK:~$ cp file1 file2 file3 example/
piya@DESKTOP-JTFNBIK:~$ ls -l example/
total 0
-rw-r--r-- 1 piya piya 0 Sep 17 23:00 file1
-rw-r--r-- 1 piya piya 0 Sep 17 23:00 file2
-rw-r--r-- 1 piya piya 0 Sep 17 23:00 file3
piya@DESKTOP-JTFNBIK:~$
```

14)mv:This command is used to move file and directories.The mv command can be used to rename the file.

Example:

```
piya@DESKTOP-JTFNBIK:~$ mv file3 user
piya@DESKTOP-JTFNBIK:~$ ls -l
total 0
drwxr-xr-x 1 piya piya 512 Sep 17 22:57 exam
drwxr-xr-x 1 piya piya 512 Sep 17 22:59 example
-rw-r--r-- 1 piya piya   0 Sep 17 22:40 file1
-rw-r--r-- 1 piya piya   0 Sep 17 22:40 file2
drwxr-xr-x 1 piya piya 512 Sep 17 20:24 piya
-rw-r--r-- 1 piya piya   0 Sep 17 22:48 user
piya@DESKTOP-JTFNBIK:~$
```

15)rmdir:This command is used to remove or delete file and directories.

Example:

```
piya@DESKTOP-JTFNBIK:~$ rm file2
piya@DESKTOP-JTFNBIK:~$ rm -r example/
piya@DESKTOP-JTFNBIK:~$ ls -l
total 0
drwxr-xr-x 1 piya piya 512 Sep 17 22:57 exam
-rw-r--r-- 1 piya piya   0 Sep 17 22:40 file1
drwxr-xr-x 1 piya piya 512 Sep 17 20:24 piya
-rw-r--r-- 1 piya piya   0 Sep 17 22:48 user
piya@DESKTOP-JTFNBIK:~$
```

16)chmod:chmod command is used to change/update file access permissions like this

Example:

```
piya@DESKTOP-JTFNBIK:~$ chmod --help
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: <https://www.gnu.org/software/coreutils/>
Report chmod translation bugs to <https://translationproject.org/team/>
Full documentation at: <https://www.gnu.org/software/coreutils/chmod>
or available locally via: info '(coreutils) chmod invocation'
piya@DESKTOP-JTFNBIK:~$
```

Discussion:

In this experiment,I do implement some basic linux command.This commands are very easy to implement.We can do so many important operations by using this command.In our operating system,their uses are so many.So we have to learn this basic linux commands and I learn it so easily.