

Lab 1: Learning Basic Linux Commands

OS used: Linux Mint 22.1

1.1 Command Name : ls

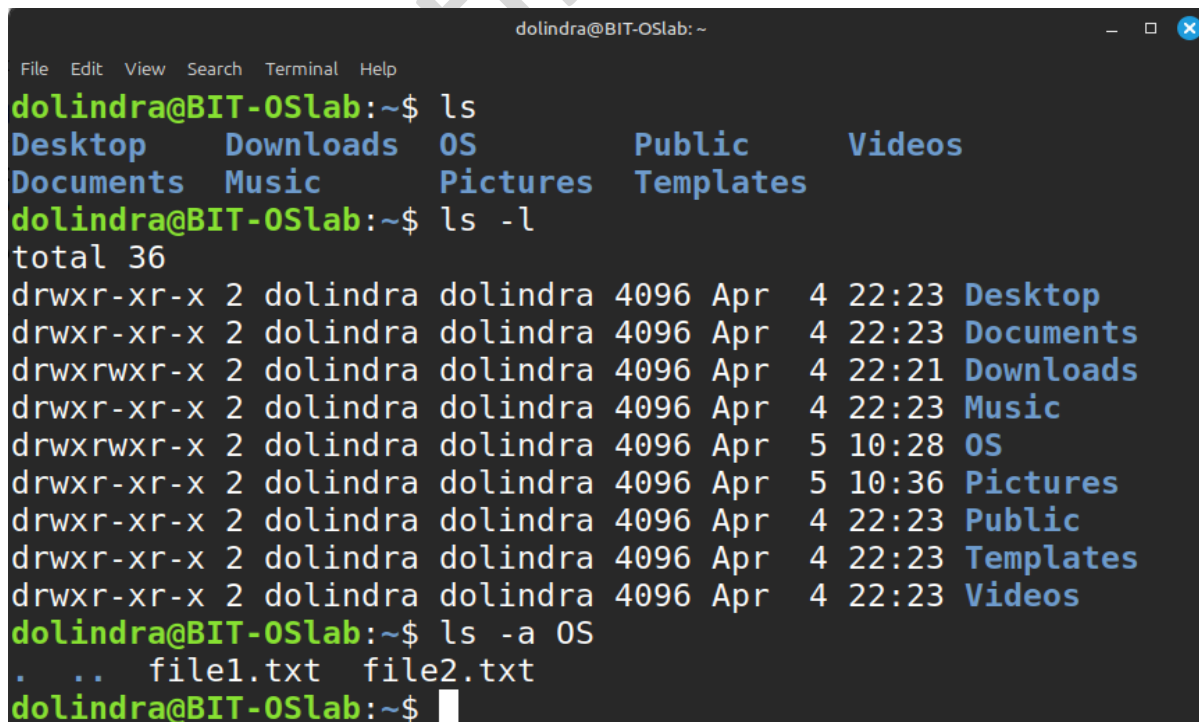
Syntax: ls [option] [directory].

Usage: ls is used to list the contents of a directory. It can be used to list the contents of the current directory or any other directory.

Commands used:

- ls : list the contents of the current directory
- ls -l : list the contents of the current directory in long format which includes:
 - The file type.
 - The file owner.
 - The file permissions.
 - Number of hard links to the file.
 - File group.
 - File name.
 - Date and Time.
 - File size.
- ls -a OS : list the contents of “OS” directory including hidden files

Output:



```
dolindra@BIT-OSlab: ~
File Edit View Search Terminal Help
dolindra@BIT-OSlab:~$ ls
Desktop  Downloads  OS          Public      Videos
Documents Music       Pictures    Templates
dolindra@BIT-OSlab:~$ ls -l
total 36
drwxr-xr-x 2 dolindra dolindra 4096 Apr  4 22:23 Desktop
drwxr-xr-x 2 dolindra dolindra 4096 Apr  4 22:23 Documents
drwxrwxr-x 2 dolindra dolindra 4096 Apr  4 22:21 Downloads
drwxr-xr-x 2 dolindra dolindra 4096 Apr  4 22:23 Music
drwxrwxr-x 2 dolindra dolindra 4096 Apr  5 10:28 OS
drwxr-xr-x 2 dolindra dolindra 4096 Apr  5 10:36 Pictures
drwxr-xr-x 2 dolindra dolindra 4096 Apr  4 22:23 Public
drwxr-xr-x 2 dolindra dolindra 4096 Apr  4 22:23 Templates
drwxr-xr-x 2 dolindra dolindra 4096 Apr  4 22:23 Videos
dolindra@BIT-OSlab:~$ ls -a OS
.  ..  file1.txt  file2.txt
dolindra@BIT-OSlab:~$
```

1.2 Command Name: cd

Syntax : cd [directory]

Usage : cd is used to change the current working directory. It can be used to change the current working directory to the home directory or any other directory.

Commands used:

- cd Documents: change the current working directory to the Documents directory of the user.
- cd / : change the current working directory to the root directory.
- cd /home: change the current working directory to the home directory.
- cd .. : change the current working directory to the parent directory.

Output:

```
dolindra@BIT-OSlab: /
File Edit View Search Terminal Help
dolindra@BIT-OSlab:~$ cd Documents
dolindra@BIT-OSlab:~/Documents$ cd /
dolindra@BIT-OSlab:/$ cd /home
dolindra@BIT-OSlab:/home$ cd ..
dolindra@BIT-OSlab:/$
```

1.3 Command Name: grep

Syntax : grep [options] pattern [file]

Usage : grep is used to search for a pattern in a file.

Commands Used:

- grep "operating system" samplefile.txt: searches for the word "operating system" in samplefile.txt.

Output:

```
dolindra@BIT-OSlab: ~
File Edit View Search Terminal Help
dolindra@BIT-OSlab:~$ grep "operating system" samplefile.txt
This is a lab file of operating system.operating system is a
software that manages computer hardware and software resource
s, providing a platform for applications to run and users to
interact with the computer.
dolindra@BIT-OSlab:~$
```

1.4 Command Name : su/sudo

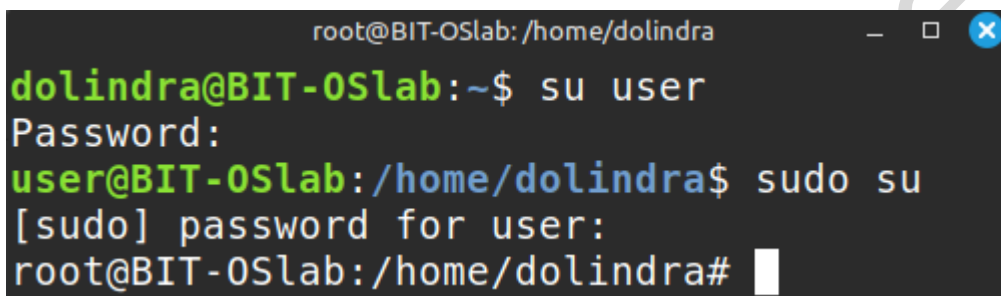
Syntax : su [options] [username]
 sudo [options] command

Usage : su is used to switch to another user. It can be used to switch to the root user or any other user.

sudo is used to execute a command as another user. It can be used to execute a command as the root user or any other user.

Commands used:

- su dolindra : switch to the user “user”.
- sudo su : switch to the root user.

Output:


```

root@BIT-OSlab: /home/dolindra
dolindra@BIT-OSlab:~$ su user
Password:
user@BIT-OSlab:/home/dolindra$ sudo su
[sudo] password for user:
root@BIT-OSlab:/home/dolindra#
  
```

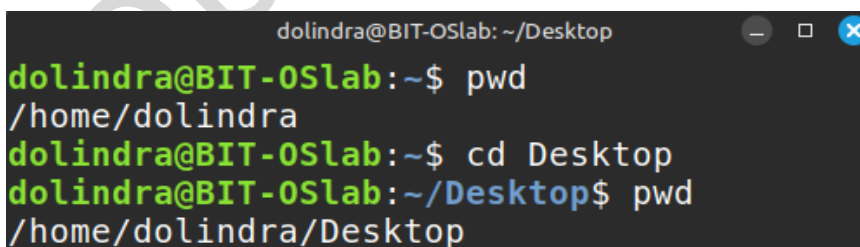
1.5 Command Name: pwd

Syntax : pwd

Usage : pwd is used to print the current working directory.

Commands Used:

- pwd : print the current working directory

Output:


```

dolindra@BIT-OSlab: ~/Desktop
dolindra@BIT-OSlab:~$ pwd
/home/dolindra
dolindra@BIT-OSlab:~$ cd Desktop
dolindra@BIT-OSlab:~/Desktop$ pwd
/home/dolindra/Desktop
  
```

1.6 Command Name: mv

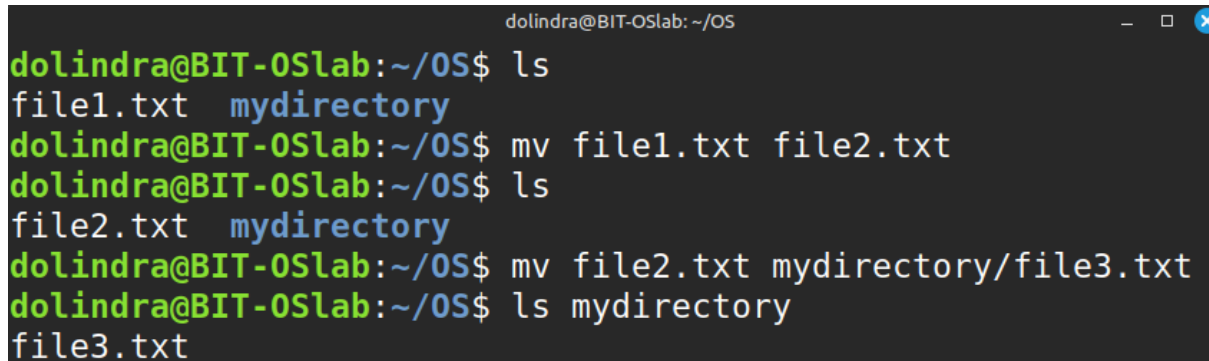
Syntax : mv [options] source destination

Usage : mv is used to move or rename a file or directory. It can be used to move or rename a file or directory in the same directory or in a different directory.

Commands Used:

- mv file1.txt file2.txt : rename the file1.txt to file2.txt
- mv file2.txt mydirectory/ file3.txt : move the file1.txt to “mydirectory” and rename it to file3.txt

Output:



```
dolindra@BIT-OSlab: ~/OS
dolindra@BIT-OSlab:~/OS$ ls
file1.txt  mydirectory
dolindra@BIT-OSlab:~/OS$ mv file1.txt file2.txt
dolindra@BIT-OSlab:~/OS$ ls
file2.txt  mydirectory
dolindra@BIT-OSlab:~/OS$ mv file2.txt mydirectory/file3.txt
dolindra@BIT-OSlab:~/OS$ ls mydirectory
file3.txt
```

1.7 Command Name: cp

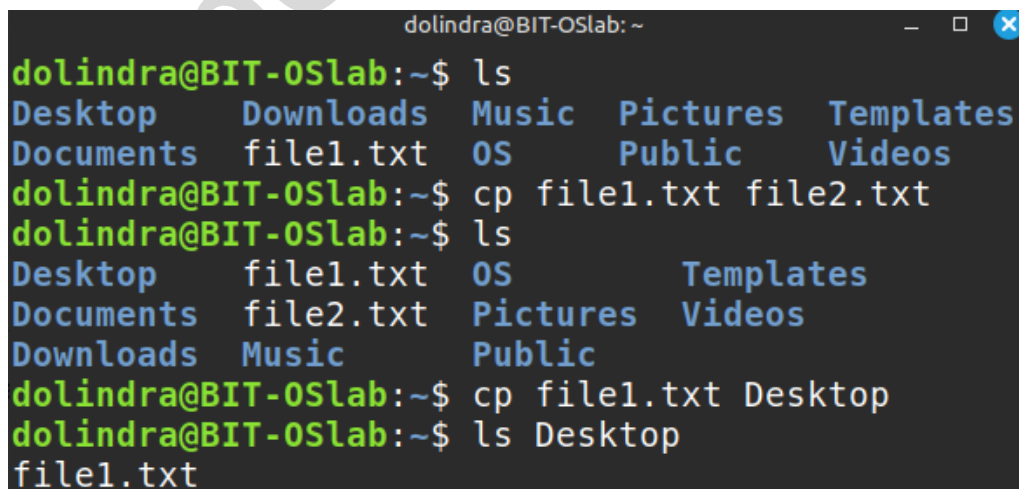
Syntax : cp [options] source destination

Usage : cp is used to copy a file or directory. It can be used to copy a file or directory in the same directory or in a different directory.

Commands Used:

- cp file1.txt file2.txt : copy the file1.txt to file2.txt.
- cp file1 Desktop : copy the file1.txt to “Desktop” directory.

Output:



```
dolindra@BIT-OSlab: ~
dolindra@BIT-OSlab:~$ ls
Desktop  Downloads  Music  Pictures  Templates
Documents  file1.txt  OS      Public  Videos
dolindra@BIT-OSlab:~$ cp file1.txt file2.txt
dolindra@BIT-OSlab:~$ ls
Desktop  file1.txt  OS      Templates
Documents  file2.txt  Pictures  Videos
Downloads  Music      Public
dolindra@BIT-OSlab:~$ cp file1.txt Desktop
dolindra@BIT-OSlab:~$ ls Desktop
file1.txt
```

1.8 Command Name: rm

Syntax : rm [options] file

Usage : rm is used to remove a file or directory. It can be used to remove a file or directory in the same directory or in a different directory.

Commands Used:

- rm file1.txt : removes the file1.txt
- rm Desktop/file2.txt : removes the file2.txt located at the “Desktop” directory.

Output:

```
dolindra@BIT-OSlab: ~  
dolindra@BIT-OSlab:~$ ls  
Desktop    file1.txt  Pictures   Videos  
Documents  Music      Public  
Downloads  OS         Templates  
dolindra@BIT-OSlab:~$ rm file1.txt  
dolindra@BIT-OSlab:~$ ls  
Desktop    Music      Public  
Documents  OS         Templates  
Downloads  Pictures   Videos  
dolindra@BIT-OSlab:~$ ls Desktop  
file2.txt  
dolindra@BIT-OSlab:~$ rm Desktop/file2.txt  
dolindra@BIT-OSlab:~$
```

1.9 Command Name: mkdir

Syntax : mkdir [options] directory

Usage : mkdir is used to create a directory.

Commands Used:

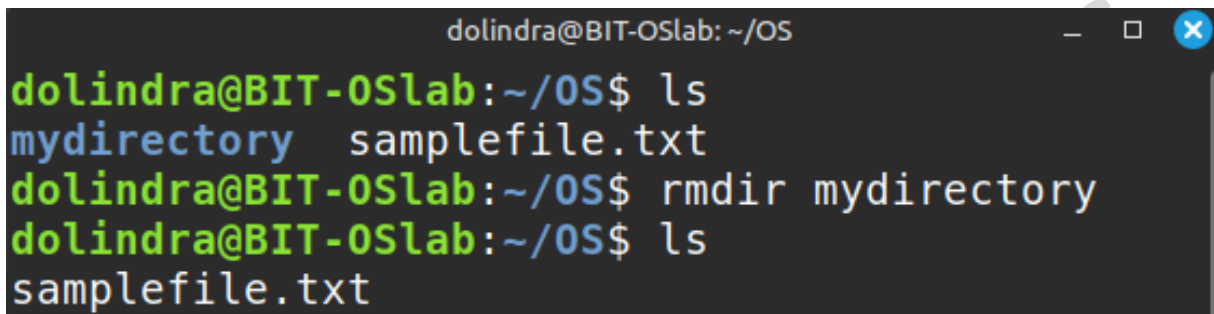
- mkdir mydirectory : creates a new directory named “mydirectory”.

Output:

```
dolindra@BIT-OSlab: ~/OS  
dolindra@BIT-OSlab:~/OS$ ls  
samplefile.txt  
dolindra@BIT-OSlab:~/OS$ mkdir mydirectory  
dolindra@BIT-OSlab:~/OS$ ls  
mydirectory  samplefile.txt
```

1.10 Command Name: rmdir**Syntax :** rmdir [options] directory**Usage :** rmdir is used to remove an empty directory.**Commands Used:**

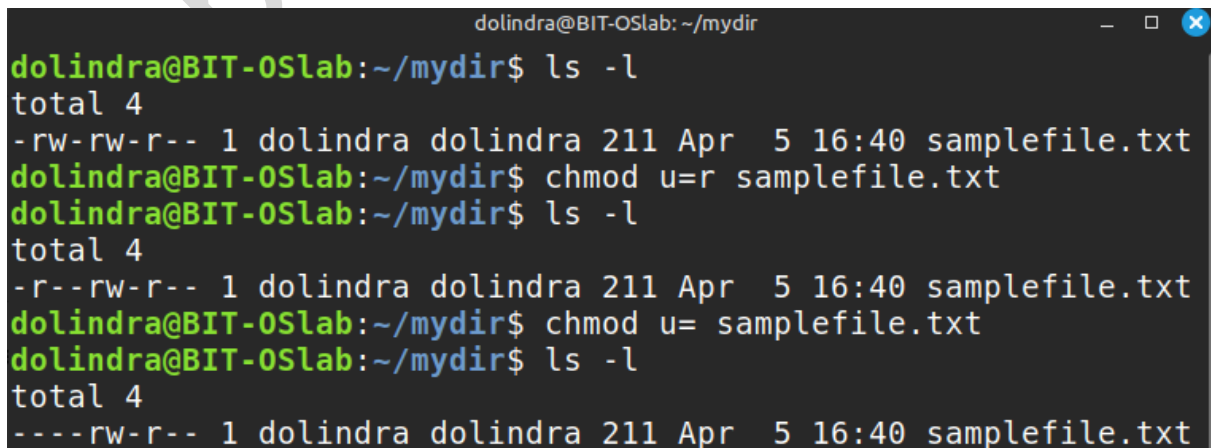
- rmdir directory : removes an empty directory named “mydirectory”.

Output:


```
dolindra@BIT-OSlab: ~/OS
dolindra@BIT-OSlab:~/OS$ ls
mydirectory  samplefile.txt
dolindra@BIT-OSlab:~/OS$ rmdir mydirectory
dolindra@BIT-OSlab:~/OS$ ls
samplefile.txt
```

1.11 Command Name: chmod**Syntax :** chmod [options] permissions file**Usage :** chmod is used to change the permissions of a file or directory.**Commands Used:**

- chmod u=r samplefile.txt : sets the “samplefile.txt” file to read only .
- chmod u= samplefile.txt : removes all the permissions of the user for “samplefile.txt”.

Output:


```
dolindra@BIT-OSlab: ~/mydir
dolindra@BIT-OSlab:~/mydir$ ls -l
total 4
-rw-rw-r-- 1 dolindra dolindra 211 Apr  5 16:40 samplefile.txt
dolindra@BIT-OSlab:~/mydir$ chmod u=r samplefile.txt
dolindra@BIT-OSlab:~/mydir$ ls -l
total 4
-r--rw-r-- 1 dolindra dolindra 211 Apr  5 16:40 samplefile.txt
dolindra@BIT-OSlab:~/mydir$ chmod u= samplefile.txt
dolindra@BIT-OSlab:~/mydir$ ls -l
total 4
---rw-r-- 1 dolindra dolindra 211 Apr  5 16:40 samplefile.txt
```

1.12 Command Name: cat

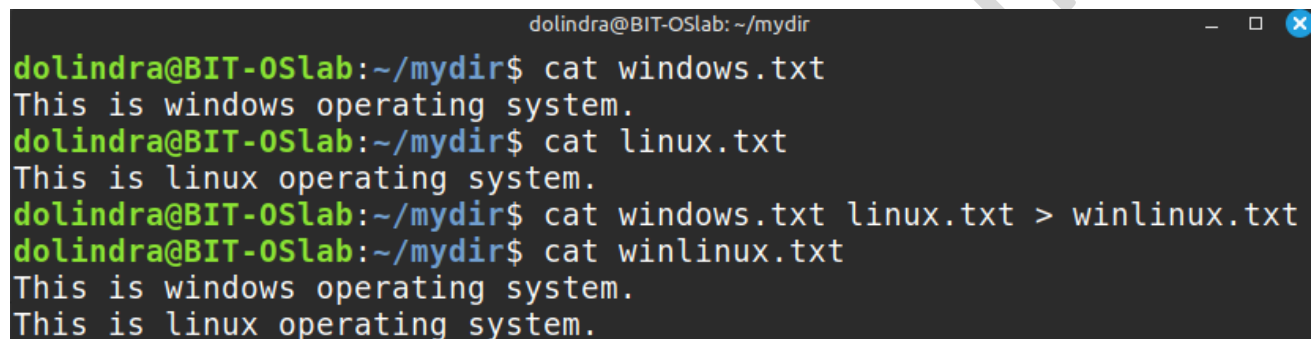
Syntax : cat [options] file(s)

Usage : cat is used to concatenate files and print on the standard output.

Commands Used:

- cat windows.txt : prints the contents of windows.txt file.
- cat linux.txt : prints the contents of linux.txt file.
- cat windows.txt linux.txt > winlinux.txt : combines the contents of windows.txt and linux.txt and saves it to winlinux.txt file.

Output:



```
dolindra@BIT-OSlab: ~/mydir
dolindra@BIT-OSlab:~/mydir$ cat windows.txt
This is windows operating system.
dolindra@BIT-OSlab:~/mydir$ cat linux.txt
This is linux operating system.
dolindra@BIT-OSlab:~/mydir$ cat windows.txt linux.txt > winlinux.txt
dolindra@BIT-OSlab:~/mydir$ cat winlinux.txt
This is windows operating system.
This is linux operating system.
```

1.13 Command Name: chown

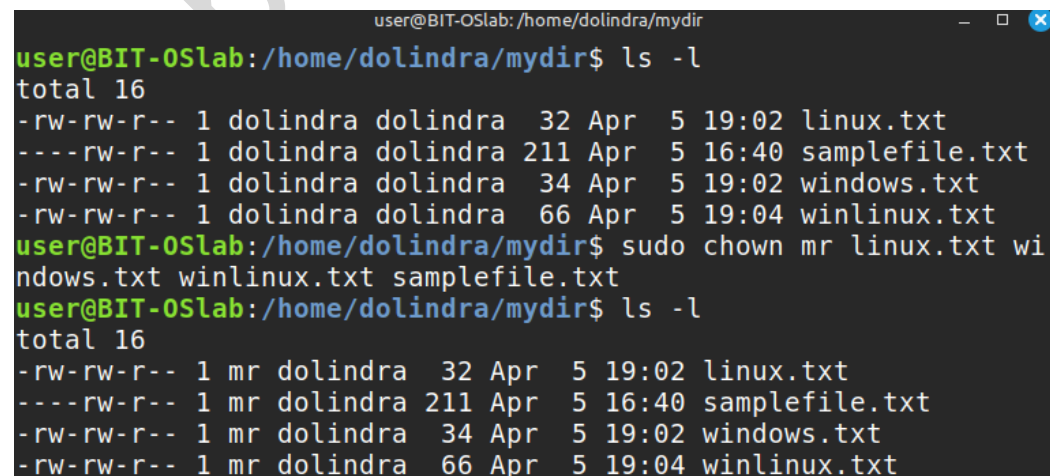
Syntax : chown [options] [owner] file

Usage : chown is used to change the owner of a file or directory.

Commands Used:

- chown user linux.txt : changes the owner of the file to the “user”.

Output:



```
user@BIT-OSlab: /home/dolindra/mydir
user@BIT-OSlab:/home/dolindra/mydir$ ls -l
total 16
-rw-rw-r-- 1 dolindra dolindra 32 Apr  5 19:02 linux.txt
----rw-r-- 1 dolindra dolindra 211 Apr  5 16:40 samplefile.txt
-rw-rw-r-- 1 dolindra dolindra 34 Apr  5 19:02 windows.txt
-rw-rw-r-- 1 dolindra dolindra 66 Apr  5 19:04 winlinux.txt
user@BIT-OSlab:/home/dolindra/mydir$ sudo chown mr linux.txt wi
ndows.txt winlinux.txt samplefile.txt
user@BIT-OSlab:/home/dolindra/mydir$ ls -l
total 16
-rw-rw-r-- 1 mr dolindra 32 Apr  5 19:02 linux.txt
----rw-r-- 1 mr dolindra 211 Apr  5 16:40 samplefile.txt
-rw-rw-r-- 1 mr dolindra 34 Apr  5 19:02 windows.txt
-rw-rw-r-- 1 mr dolindra 66 Apr  5 19:04 winlinux.txt
```


1.14 Command Name: echo

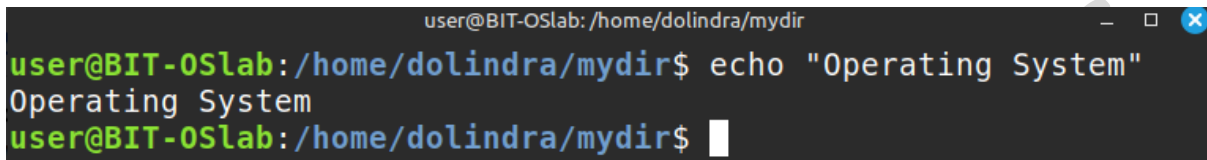
Syntax : echo [options] string

Usage : echo is used to display a line of text/string.

Commands Used:

- echo "Operating System" : Displays "Operating System".

Output:

A terminal window with a dark background. The title bar shows 'user@BIT-OSlab: /home/dolindra/mydir'. The prompt is 'user@BIT-OSlab:/home/dolindra/mydir\$'. The command 'echo "Operating System"' has been entered, and the output 'Operating System' is displayed on the next line. The prompt is now 'user@BIT-OSlab:/home/dolindra/mydir\$' with a cursor.

```
user@BIT-OSlab:/home/dolindra/mydir$ echo "Operating System"
Operating System
user@BIT-OSlab:/home/dolindra/mydir$
```

1.15 Command Name : wc

Syntax : wc [options] file

Usage : wc is used to count the number of lines, words, and bytes in a file.

Commands Used:

- wc linux.txt : counts the number of lines, words, and bytes in the file "linux.txt".
- wc -l linux.txt : counts the number of lines in the file "linux.txt".
- wc -w linux.txt : counts the number of words in the file "linux.txt".
- wc -c linux.txt : counts the number of bytes in the file "linux.txt".

Output:

A terminal window with a dark background. The title bar shows 'dolindra@BIT-OSlab: ~/mydir'. The prompt is 'dolindra@BIT-OSlab:~/mydir\$'. Four commands are shown, each followed by its output:
1. 'wc linux.txt' outputs '1 5 32 linux.txt'.
2. 'wc -l linux.txt' outputs '1 linux.txt'.
3. 'wc -w linux.txt' outputs '5 linux.txt'.
4. 'wc -c linux.txt' outputs '32 linux.txt'.
The prompt is 'dolindra@BIT-OSlab:~/mydir\$' with a cursor.

```
dolindra@BIT-OSlab:~/mydir$ wc linux.txt
1 5 32 linux.txt
dolindra@BIT-OSlab:~/mydir$ wc -l linux.txt
1 linux.txt
dolindra@BIT-OSlab:~/mydir$ wc -w linux.txt
5 linux.txt
dolindra@BIT-OSlab:~/mydir$ wc -c linux.txt
32 linux.txt
dolindra@BIT-OSlab:~/mydir$
```

1.16 Command Name: man

Syntax : man [options] command

Usage : man is used to display the user manual of any command that we can run on the terminal.

Commands Used:

- man pwd : It provides a detailed view of **pwd** command which includes NAME, SYNOPSIS, DESCRIPTION, OPTIONS, EXIT STATUS, RETURN VALUES, ERRORS, FILES, VERSIONS, EXAMPLES, AUTHORS and SEE ALSO.

Output:

```

dolindra@BIT-OSlab: ~/mydir
PWD(1)                                User Commands                                PWD(1)

NAME
    pwd - print name of current/working directory

SYNOPSIS
    pwd [OPTION]...

DESCRIPTION
    Print the full filename of the current working
    directory.

    -L, --logical
        use PWD from environment, even if it
        contains symlinks

    -P, --physical
        avoid all symlinks

    --help display this help and exit

    --version
        output version information and exit

    If no option is specified, -P is assumed.

    NOTE: your shell may have its own version of
    al page pwd(1) line 1 (press h for help or q to quit)
  
```

```

dolindra@BIT-OSlab: ~/mydir

AUTHOR
    Written by Jim Meyering.

REPORTING BUGS
    GNU      coreutils      online      help:
    <https://www.gnu.org/software/coreutils/>
    Report any translation bugs to <https://trans-
    lationproject.org/team/>

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    later <https://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.

SEE ALSO
    getcwd(3)

    Full documentation <https://www.gnu.org/soft-
    ware/coreutils/pwd>
    or available locally via: info '(coreutils)
    pwd invocation'

GNU coreutils 9.4      April 2024      PWD(1)
d(1) line 32/58 (END) (press h for help or q to quit)

```

1.17 Command Name: history

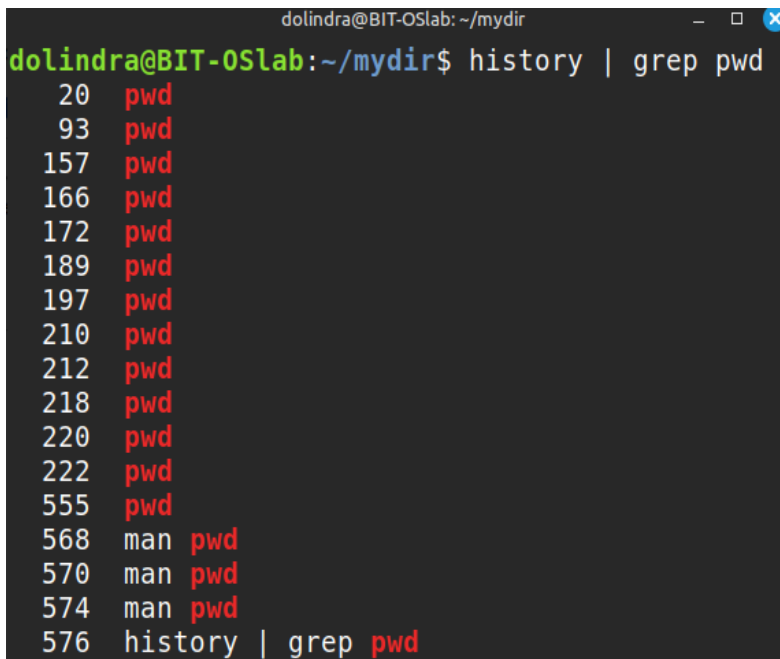
Syntax : history [options]

Usage : history is used to print the history of commands.

Commands Used:

- history | grep pwd : prints the history of the “pwd” command.

Output:



```
dolindra@BIT-OSlab: ~/mydir
dolindra@BIT-OSlab:~/mydir$ history | grep pwd
20  pwd
93  pwd
157 pwd
166 pwd
172 pwd
189 pwd
197 pwd
210 pwd
212 pwd
218 pwd
220 pwd
222 pwd
555 pwd
568 man pwd
570 man pwd
574 man pwd
576 history | grep pwd
```

1.18 Command Name: clear

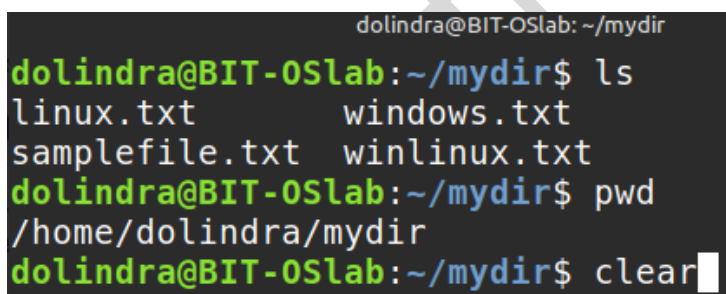
Syntax : clear [options]

Usage : clear is used to clear the terminal screen.

Commands Used:

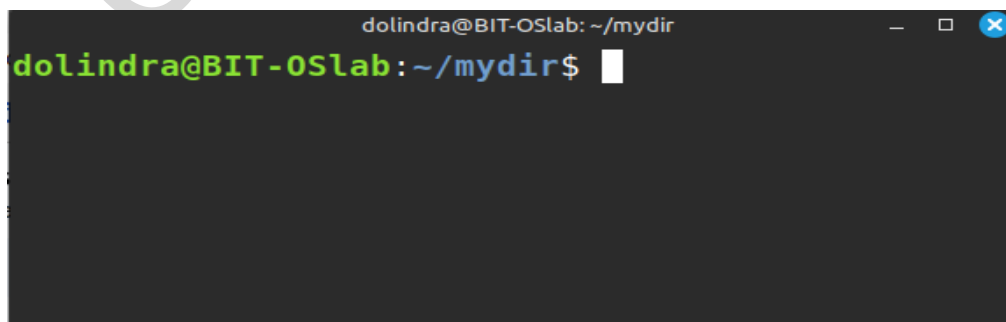
- clear : clears the terminal screen.

Output Before executing **clear** command:



```
dolindra@BIT-OSlab: ~/mydir
dolindra@BIT-OSlab:~/mydir$ ls
linux.txt      windows.txt
samplefile.txt winlinux.txt
dolindra@BIT-OSlab:~/mydir$ pwd
/home/dolindra/mydir
dolindra@BIT-OSlab:~/mydir$ clear
```

Output After executing **clear** command:



```
dolindra@BIT-OSlab: ~/mydir
dolindra@BIT-OSlab:~/mydir$
```

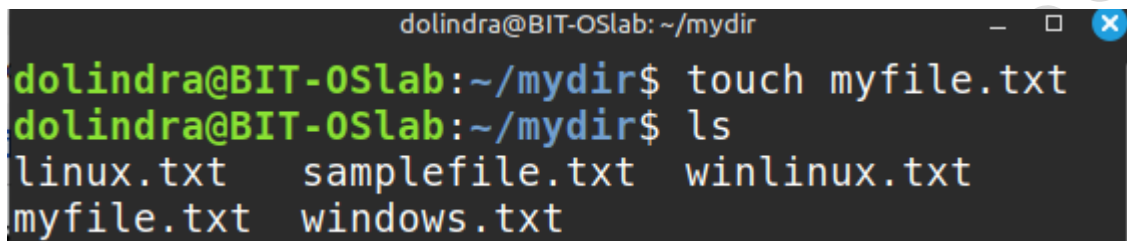
1.19 Command Name: touch

Syntax : touch [options] file

Usage : touch is used to create an empty file.

Commands Used:

- touch myfile.txt : creates a new empty file named “myfile.txt”.

Output:

```
dolindra@BIT-OSlab: ~/mydir
dolindra@BIT-OSlab:~/mydir$ touch myfile.txt
dolindra@BIT-OSlab:~/mydir$ ls
linux.txt    samplefile.txt  winlinux.txt
myfile.txt   windows.txt
```

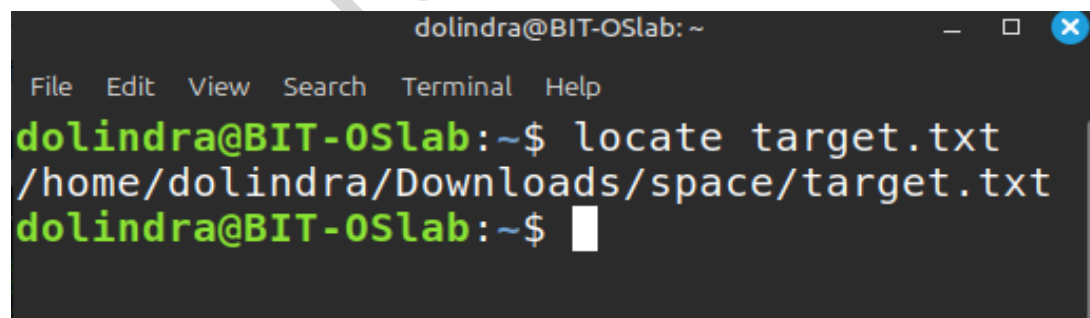
1.20 Command Name: locate

Syntax : locate [options] file

Usage : locate is used to find the location of a file or directory.

Commands Used:

- locate myfile.txt : find the location of the file.

Output:

```
dolindra@BIT-OSlab: ~
File Edit View Search Terminal Help
dolindra@BIT-OSlab:~$ locate target.txt
/home/dolindra/Downloads/space/target.txt
dolindra@BIT-OSlab:~$
```

1.21 Command Name: netstat

Syntax : netstat [options]

Usage : netstat is used to display network connections, routing tables, interface statistics, masquerade connections, and multicast memberships.

Commands Used:

- netstat -l : displays listening sockets.

Output:

```
dolindra@BIT-OSlab: ~
File Edit View Search Terminal Help
dolindra@BIT-OSlab:~$ netstat -l
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
tcp        0      0 localhost:ipp           0.0.0.0:*               LISTEN
tcp        0      0 localhost:33060         0.0.0.0:*               LISTEN
tcp        0      0 _localdnsproxy:domain  0.0.0.0:*               LISTEN
tcp        0      0 _localdnsstub:domain   0.0.0.0:*               LISTEN
tcp        0      0 localhost:mysql         0.0.0.0:*               LISTEN
tcp6       0      0 ip6-localhost:ipp      [::]:*                  LISTEN
```

1.22 Command Name: df

Syntax : df [options] file

Usage : df is used to display the amount of disk space available on the file system.

Commands Used:

- df : displays the amount of disk space available on the file system.
- df -h : display the amount of disk space available on the file system in human readable format.

Output:

```
dolindra@BIT-OSlab: ~
File Edit View Search Terminal Help
dolindra@BIT-OSlab:~$ df
Filesystem      1K-blocks    Used Available Use% Mounted on
tmpfs           344240      1548    342692   1% /run
efivarfs        88          45       39   55% /sys/firmware/efi/efivars
/dev/sda2      244506940 16954076 215059808   8% /
tmpfs          1721184    248276  1472908  15% /dev/shm
tmpfs           5120        12     5108    1% /run/lock
/dev/sda1       523244     6284   516960    2% /boot/efi
tmpfs          344236      200    344036    1% /run/user/1001
dolindra@BIT-OSlab:~$ df -h
Filesystem      Size  Used Avail Use% Mounted on
tmpfs           337M  1.6M  335M   1% /run
efivarfs        88K   45K   39K   55% /sys/firmware/efi/efivars
/dev/sda2       234G   17G  206G    8% /
tmpfs           1.7G  243M  1.5G   15% /dev/shm
tmpfs           5.0M   12K  5.0M    1% /run/lock
/dev/sda1       511M   6.2M  505M    2% /boot/efi
tmpfs           337M  200K  336M    1% /run/user/1001
```

1.23 Command Name: du

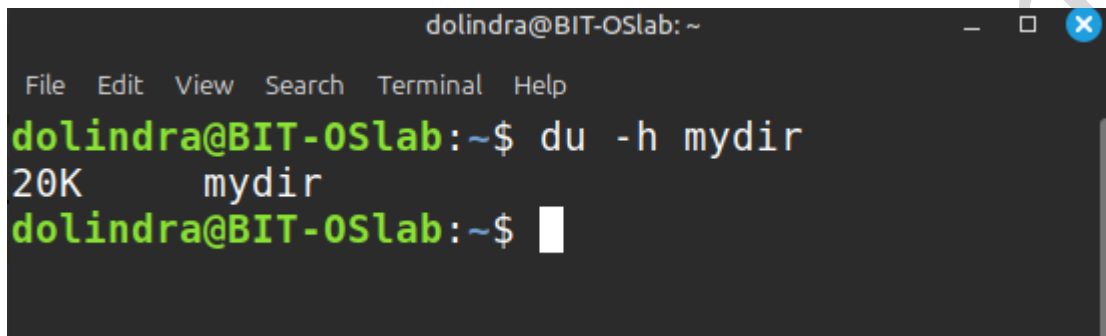
Syntax : du [OPTIONS]....[FILE]....

Usage : du is used to estimate files or directories space usage.

Commands Used:

- du -h mydir : estimate file space usage of “mydir” directory in human readable format.

Output:



```
dolindra@BIT-OSlab: ~  
File Edit View Search Terminal Help  
dolindra@BIT-OSlab:~$ du -h mydir  
20K      mydir  
dolindra@BIT-OSlab:~$
```

1.24 Command Name: uname

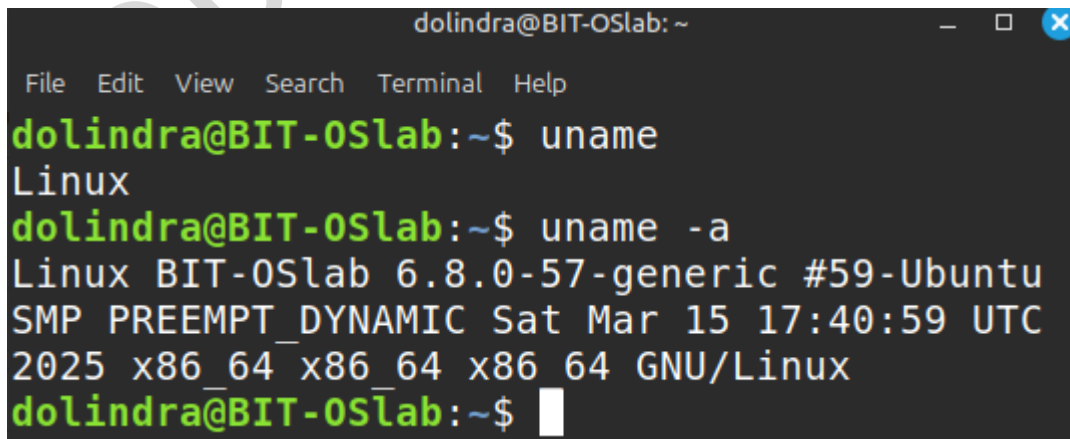
Syntax : uname [options]

Usage : uname is used to print certain system information.

Commands Used:

- uname : prints certain system information.
- uname -a : prints all system information.

Output:



```
dolindra@BIT-OSlab: ~  
File Edit View Search Terminal Help  
dolindra@BIT-OSlab:~$ uname  
Linux  
dolindra@BIT-OSlab:~$ uname -a  
Linux BIT-OSlab 6.8.0-57-generic #59-Ubuntu  
SMP PREEMPT_DYNAMIC Sat Mar 15 17:40:59 UTC  
2025 x86_64 x86_64 x86_64 GNU/Linux  
dolindra@BIT-OSlab:~$
```

1.25 Command Name: passwd**Syntax :** passwd [options]**Usage :** passwd is used to change the password of a user.**Commands Used:**

- passwd : changes the password of the current user.

Output:

```
dolindra@BIT-OSlab: ~  
File Edit View Search Terminal Help  
dolindra@BIT-OSlab:~$ passwd  
Changing password for dolindra.  
Current password:  
New password:  
Retype new password:  
passwd: password updated successfully  
dolindra@BIT-OSlab:~$
```

1.26 Command Name: useradd**Syntax :** useradd [options] [username]**Usage :** useradd is used to add a new user to the system.**Commands Used:**

- useradd student : Creates a new user named student.

Output:

```
user@BIT-OSlab: /home/dolindra  
File Edit View Search Terminal Help  
user@BIT-OSlab:/home/dolindra$ sudo useradd student  
user@BIT-OSlab:/home/dolindra$ id student  
uid=1003(student) gid=1003(student) groups=1003(student)  
user@BIT-OSlab:/home/dolindra$
```

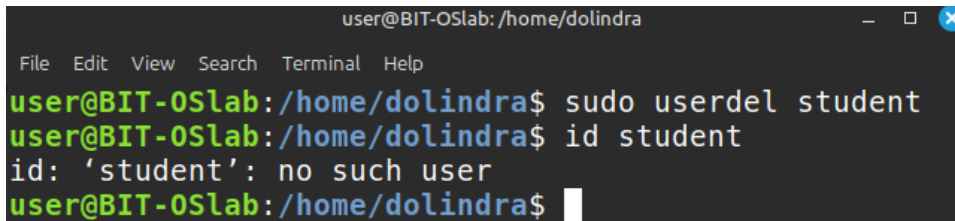
1.27 Command Name: userdel**Syntax :** userdel [options] [username]

Usage : userdel is used to delete a user from the system.

Commands Used:

- `sudo userdel student` : Deletes “student” user from the system.

Output:



```

user@BIT-OSlab:/home/dolindra
File Edit View Search Terminal Help
user@BIT-OSlab:/home/dolindra$ sudo userdel student
user@BIT-OSlab:/home/dolindra$ id student
id: 'student': no such user
user@BIT-OSlab:/home/dolindra$

```

1.28 Command Name: apt-get

Syntax : `apt-get [options]`

`apt-get install [package name]`, `apt-get remove [package name]`

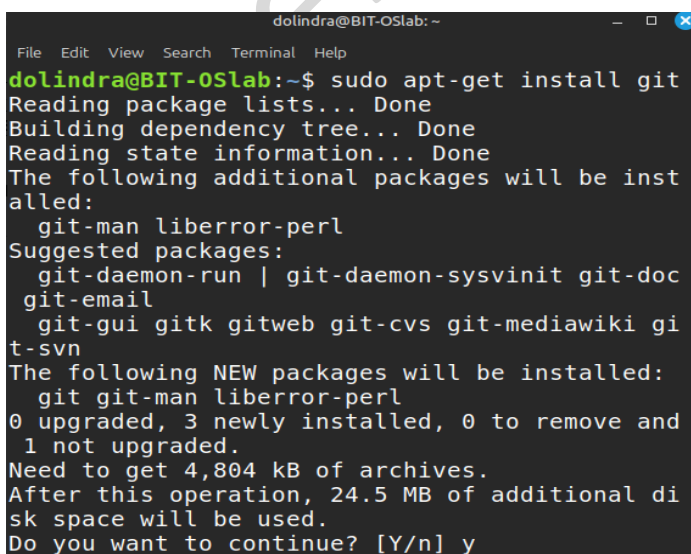
Note: You may need to add sudo before the commands.

Usage : apt-get is used to install, remove, and update software packages on Debian based systems.

Commands Used:

- `sudo apt-get install git` : install the “git” package.
- `sudo apt-get remove git` : remove the “git” package.
- `sudo apt-get update` : update all available packages.

Output:



```

dolindra@BIT-OSlab: ~
File Edit View Search Terminal Help
dolindra@BIT-OSlab:~$ sudo apt-get install git
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  git-man liberror-perl
Suggested packages:
  git-daemon-run | git-daemon-sysvinit git-doc
  git-email
  git-gui gitk gitweb git-cvs git-mediawiki git-svn
The following NEW packages will be installed:
  git git-man liberror-perl
0 upgraded, 3 newly installed, 0 to remove and
1 not upgraded.
Need to get 4,804 kB of archives.
After this operation, 24.5 MB of additional disk
space will be used.
Do you want to continue? [Y/n] y

```

```
dolindra@BIT-OSlab: ~
File Edit View Search Terminal Help
dolindra@BIT-OSlab:~$ sudo apt-get remove git
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following packages were automatically installed and are no longer required:
  git-man liberror-perl
Use 'sudo apt autoremove' to remove them.
The following packages will be REMOVED:
  git
0 upgraded, 0 newly installed, 1 to remove and
1 not upgraded.
After this operation, 22.2 MB disk space will
be freed.
Do you want to continue? [Y/n] y
(Reading database ... 572683 files and directo
ries currently installed.)
Removing git (1:2.43.0-1ubuntu7.2) ...
dolindra@BIT-OSlab:~$
```

```
dolindra@BIT-OSlab: ~
File Edit View Search Terminal Help
dolindra@BIT-OSlab:~$ sudo apt-get update
Hit:1 http://security.ubuntu.com/ubuntu noble-security InRelease
Hit:2 https://dl.google.com/linux/chrome/deb stable InRelease
Ign:3 http://packages.linuxmint.com xia InRelease
Hit:4 http://archive.ubuntu.com/ubuntu noble InRelease
Hit:5 http://packages.linuxmint.com xia Release
Hit:6 http://archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:7 http://archive.ubuntu.com/ubuntu noble-backports InRelease
Reading package lists... Done
dolindra@BIT-OSlab:~$
```

1.29 Command Name: ping

Syntax : ping [options] hostname

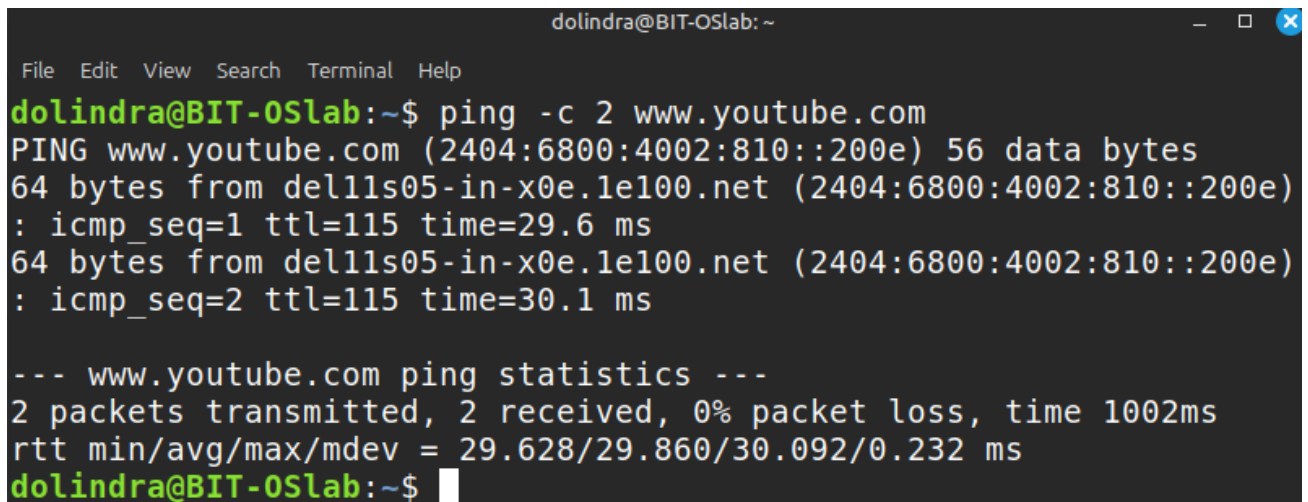
hostname is the name of the host to be pinged eg: "www.google.com".

Usage : ping is used to test the reachability of a host on an Internet Protocol (IP) network.

Commands Used:

- ping -c 2 www.youtube.com : tests the reachability of "www.youtube.com" by sending 2 packets and stops.

Output:



```
dolindra@BIT-OSlab: ~
File Edit View Search Terminal Help
dolindra@BIT-OSlab:~$ ping -c 2 www.youtube.com
PING www.youtube.com (2404:6800:4002:810::200e) 56 data bytes
64 bytes from del11s05-in-x0e.1e100.net (2404:6800:4002:810::200e)
: icmp_seq=1 ttl=115 time=29.6 ms
64 bytes from del11s05-in-x0e.1e100.net (2404:6800:4002:810::200e)
: icmp_seq=2 ttl=115 time=30.1 ms

--- www.youtube.com ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1002ms
rtt min/avg/max/mdev = 29.628/29.860/30.092/0.232 ms
dolindra@BIT-OSlab:~$
```

1.30 Command Name: find

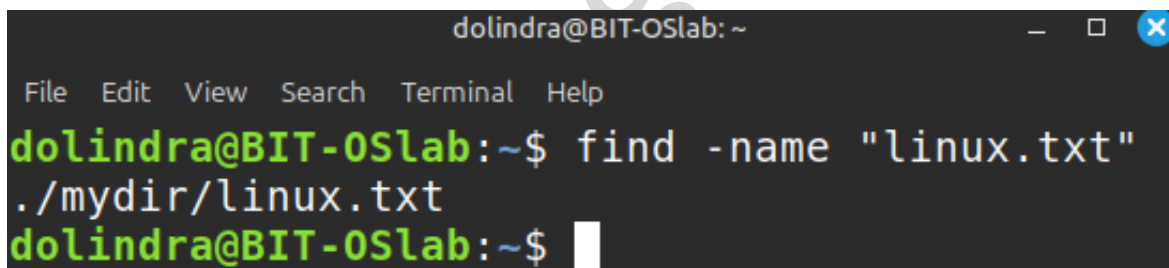
Syntax : find [options] path

Usage : find is used to search for files in a directory hierarchy.

Commands Used:

- find -name linux.txt : searches for “linux.txt” and prints its path.

Output:



```
dolindra@BIT-OSlab: ~
File Edit View Search Terminal Help
dolindra@BIT-OSlab:~$ find -name "linux.txt"
./mydir/linux.txt
dolindra@BIT-OSlab:~$
```

1.31 Command Name: head

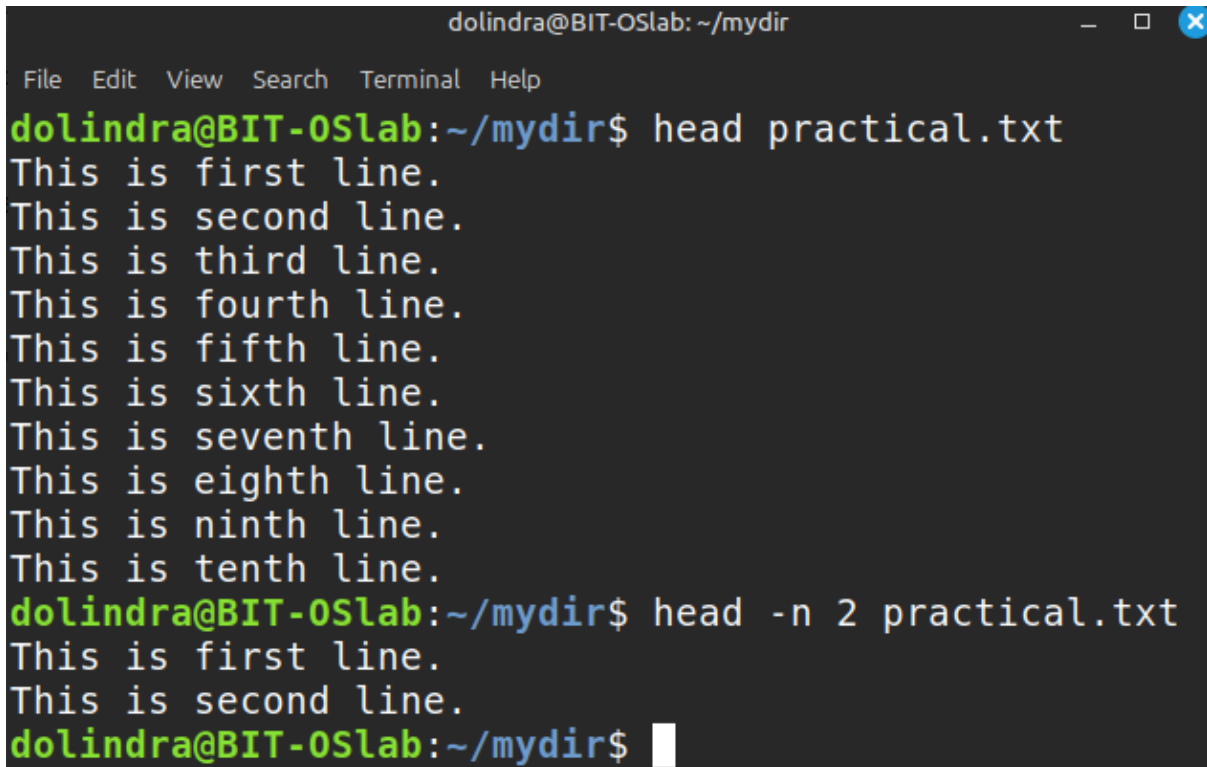
Syntax : head [options] file

Usage : head is used to output the first part of files.

Commands Used:

- head practical.txt : displays the first 10 lines of the file “practical.txt”.
- head -n 2 practical.txt : displays the first 2 lines of the file.

Output:



```
dolindra@BIT-OSlab: ~/mydir
File Edit View Search Terminal Help
dolindra@BIT-OSlab:~/mydir$ head practical.txt
This is first line.
This is second line.
This is third line.
This is fourth line.
This is fifth line.
This is sixth line.
This is seventh line.
This is eighth line.
This is ninth line.
This is tenth line.
dolindra@BIT-OSlab:~/mydir$ head -n 2 practical.txt
This is first line.
This is second line.
dolindra@BIT-OSlab:~/mydir$
```

1.32 Command Name: tail

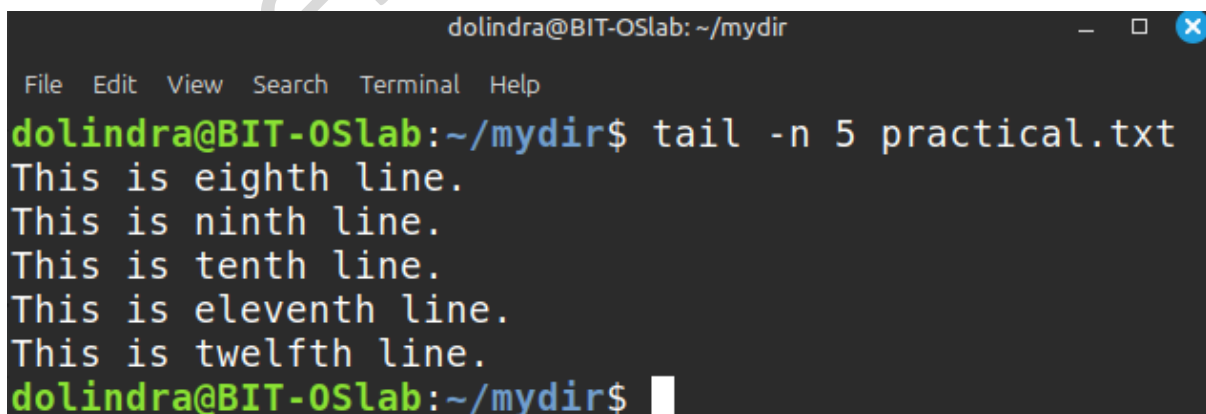
Syntax : tail [options] file

Usage : tail is used to output the last part of files.

Commands Used:

- tail -n 5 practical.txt : displays the last 5 lines of “practical.txt”.

Output:



```
dolindra@BIT-OSlab: ~/mydir
File Edit View Search Terminal Help
dolindra@BIT-OSlab:~/mydir$ tail -n 5 practical.txt
This is eighth line.
This is ninth line.
This is tenth line.
This is eleventh line.
This is twelfth line.
dolindra@BIT-OSlab:~/mydir$
```

1.33 Command Name: rename

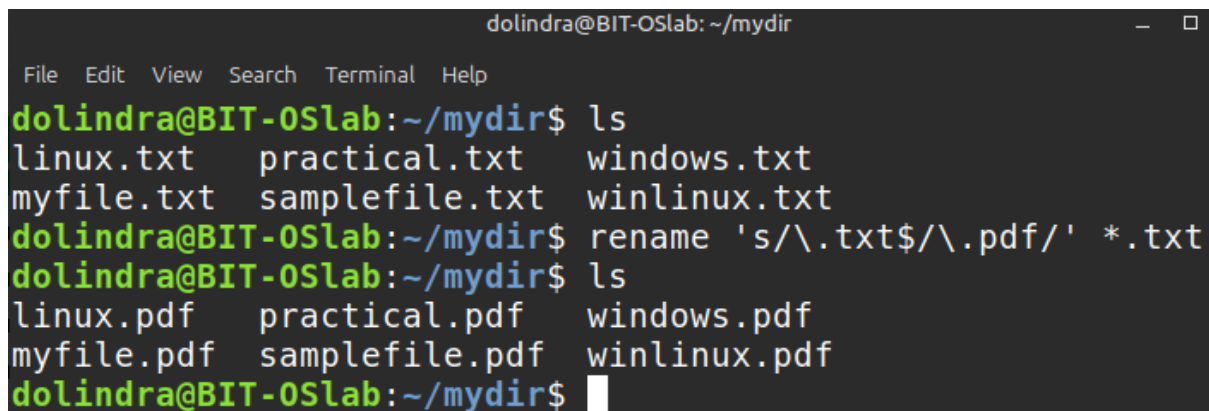
Syntax : rename [options]

Usage : rename is used to rename multiple files.

Commands Used:

- rename 's/\.txt\$/\.pdf/' *.txt : rename all the text files of the current directory into pdf files.

Output:



```
dolindra@BIT-OSlab: ~/mydir
File Edit View Search Terminal Help
dolindra@BIT-OSlab:~/mydir$ ls
linux.txt      practical.txt  windows.txt
myfile.txt     samplefile.txt winlinux.txt
dolindra@BIT-OSlab:~/mydir$ rename 's/\.txt$/\.pdf/' *.txt
dolindra@BIT-OSlab:~/mydir$ ls
linux.pdf      practical.pdf  windows.pdf
myfile.pdf     samplefile.pdf winlinux.pdf
dolindra@BIT-OSlab:~/mydir$
```

1.34 Command name: tac

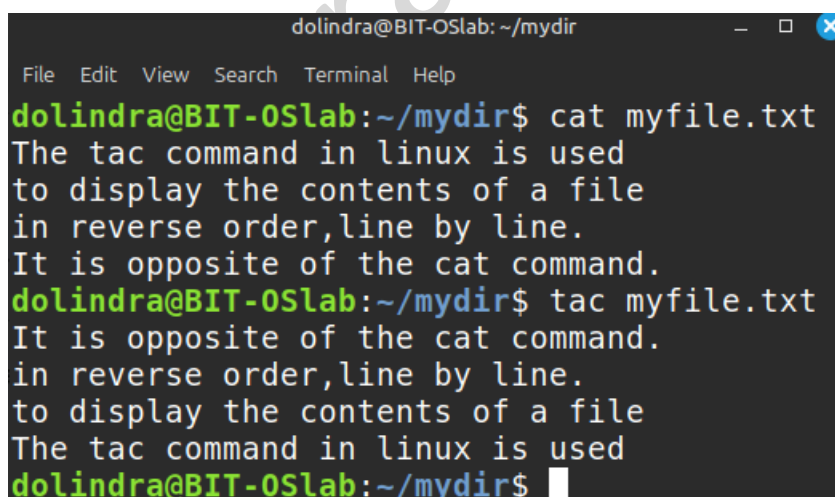
Syntax : tac [options] file

Usage : tac is used to print the contents of files in reverse.

Commands Used:

- Cat myfile.txt : prints the contents of “myfile.txt” in forward order (first to last line).
- tac myfile.txt : prints the contents of “myfile.txt” in reverse order.

Output:



```
dolindra@BIT-OSlab: ~/mydir
File Edit View Search Terminal Help
dolindra@BIT-OSlab:~/mydir$ cat myfile.txt
The tac command in linux is used
to display the contents of a file
in reverse order,line by line.
It is opposite of the cat command.
dolindra@BIT-OSlab:~/mydir$ tac myfile.txt
It is opposite of the cat command.
in reverse order,line by line.
to display the contents of a file
The tac command in linux is used
dolindra@BIT-OSlab:~/mydir$
```

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