



## Lab Report 02

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**Section:** PC-D

**Course Code:** CSE 324

**Course Title:** Operating System Lab

**Dept. Of** CSE

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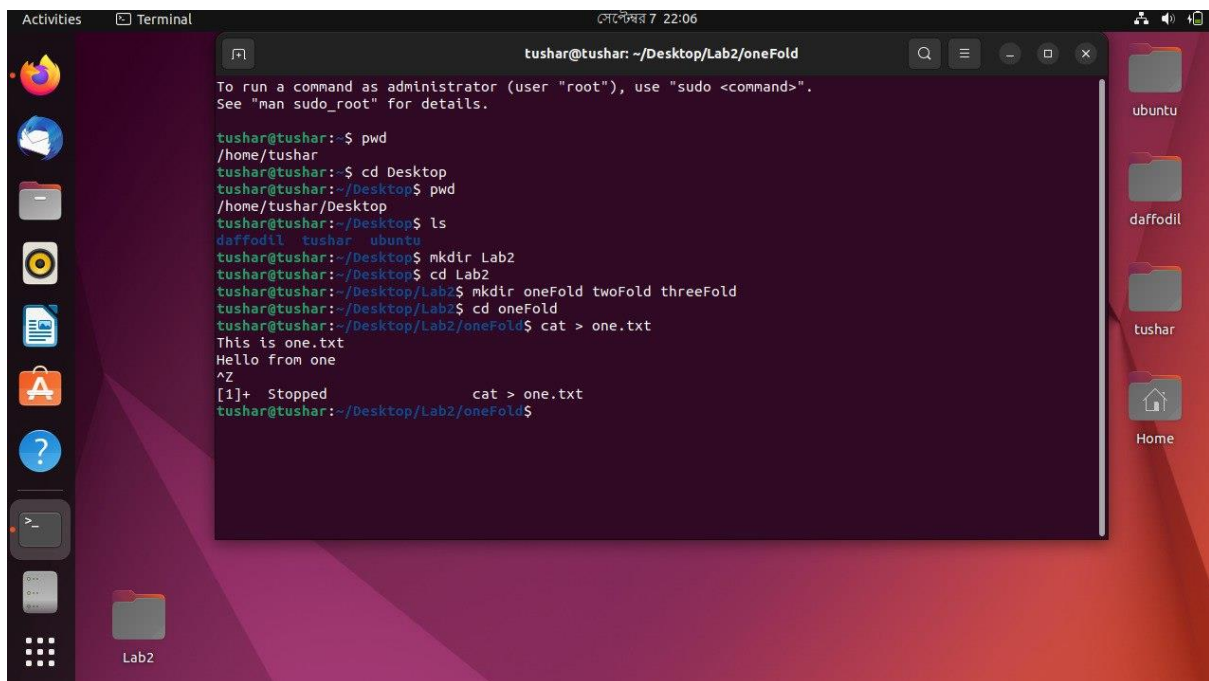
Submitted on 13 September 2022

## Experiment Name: Basic Linux commands on lab class-(2)

### Command 1: cp

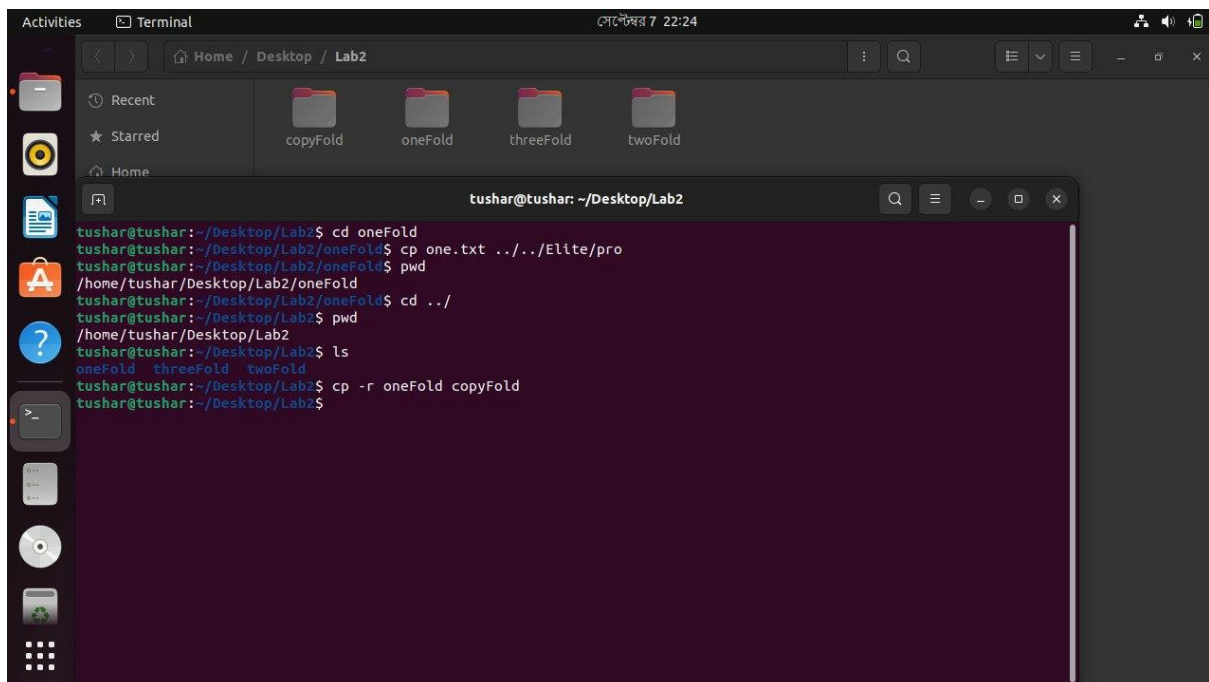
Description: It is the copy command in Linux and it is actually short for copy and it does exactly as its name suggests: it copies. cp is used for copying files from one location to another. cp can also be used to copy entire directories into a new location.

Screen shoot of the command:



```
tushar@tushar: ~/Desktop/Lab2/oneFold
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

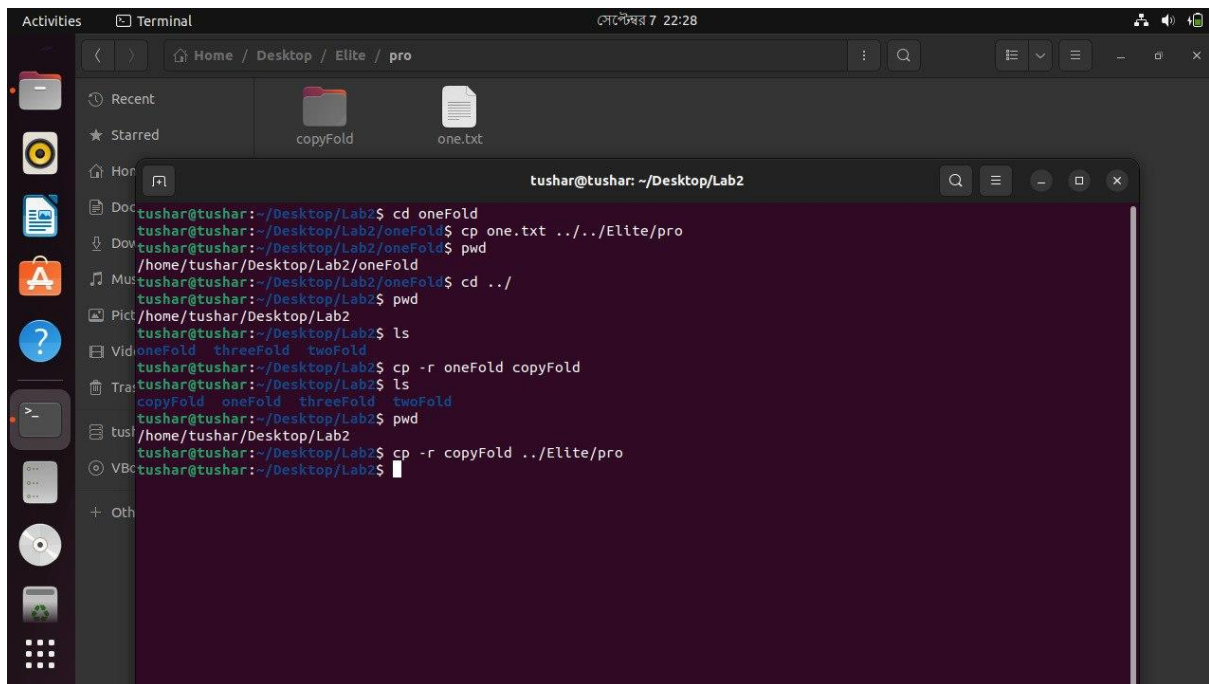
tushar@tushar:~$ pwd
/home/tushar
tushar@tushar:~$ cd Desktop
tushar@tushar:~/Desktop$ pwd
/home/tushar/Desktop
tushar@tushar:~/Desktop$ ls
daffodil  tushar  ubuntu
tushar@tushar:~/Desktop$ mkdir Lab2
tushar@tushar:~/Desktop$ cd Lab2
tushar@tushar:~/Desktop/Lab2$ mkdir oneFold twoFold threeFold
tushar@tushar:~/Desktop/Lab2$ cd oneFold
tushar@tushar:~/Desktop/Lab2/oneFold$ cat > one.txt
This is one.txt
Hello from one
^Z
[1]+  Stopped                  cat > one.txt
tushar@tushar:~/Desktop/Lab2/oneFold$
```



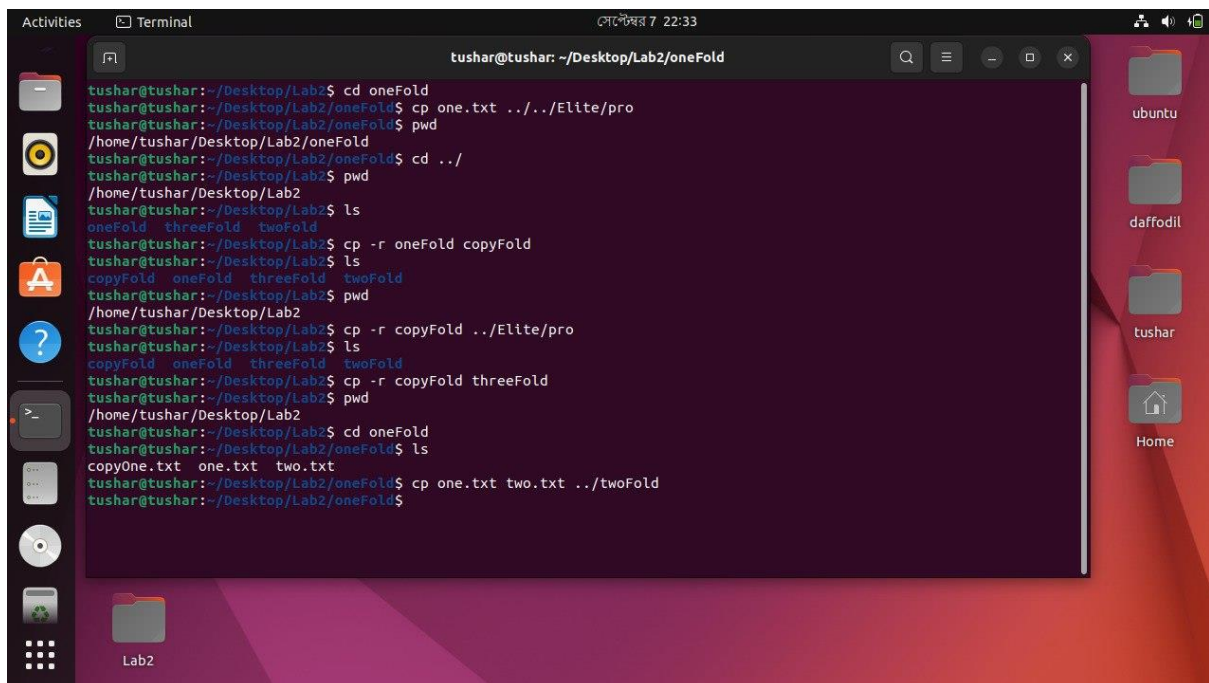
```
tushar@tushar: ~/Desktop/Lab2
Recent
Starred
Home
copyFold  oneFold  threeFold  twoFold

tushar@tushar:~/Desktop/Lab2$ cd oneFold
tushar@tushar:~/Desktop/Lab2/oneFold$ cp one.txt ../../Elite/pro
tushar@tushar:~/Desktop/Lab2/oneFold$ pwd
/home/tushar/Desktop/Lab2/oneFold
tushar@tushar:~/Desktop/Lab2/oneFold$ cd ../
tushar@tushar:~/Desktop/Lab2$ pwd
/home/tushar/Desktop/Lab2
tushar@tushar:~/Desktop/Lab2$ ls
oneFold  threeFold  twoFold
tushar@tushar:~/Desktop/Lab2$ cp -r oneFold copyFold
tushar@tushar:~/Desktop/Lab2$
```

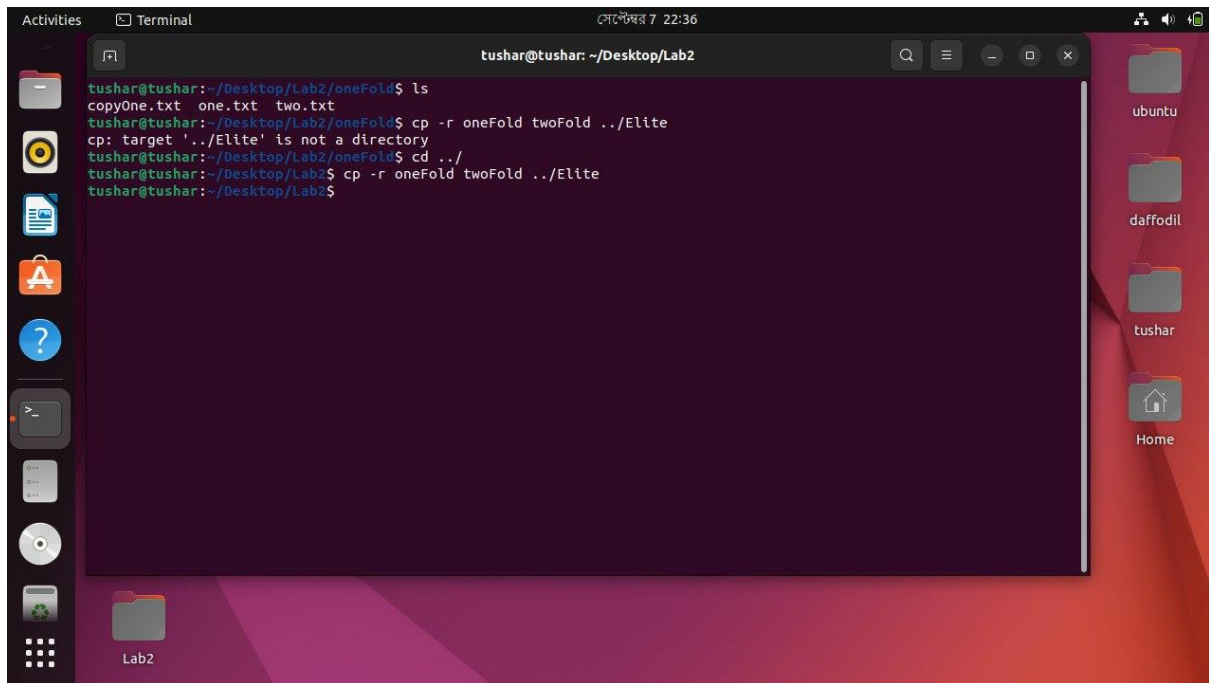
Copy one folder to another folder:

A terminal window titled 'tushar@tushar: ~/Desktop/Lab2' is open. The user is navigating through the file system to copy a folder. The terminal shows the following commands and output:

```
tushar@tushar:~/Desktop/Lab2$ cd oneFold
tushar@tushar:~/Desktop/Lab2/oneFold$ cp one.txt ../../Elite/pro
tushar@tushar:~/Desktop/Lab2/oneFold$ pwd
/home/tushar/Desktop/Lab2/oneFold
tushar@tushar:~/Desktop/Lab2/oneFold$ cd ../
tushar@tushar:~/Desktop/Lab2$ pwd
/home/tushar/Desktop/Lab2
tushar@tushar:~/Desktop/Lab2$ ls
oneFold threeFold twoFold
tushar@tushar:~/Desktop/Lab2$ cp -r oneFold copyFold
tushar@tushar:~/Desktop/Lab2$ ls
copyFold oneFold threeFold twoFold
tushar@tushar:~/Desktop/Lab2$ pwd
/home/tushar/Desktop/Lab2
tushar@tushar:~/Desktop/Lab2$ cp -r copyFold ../../Elite/pro
tushar@tushar:~/Desktop/Lab2$
```

A terminal window titled 'tushar@tushar: ~/Desktop/Lab2/oneFold' is open. The user is navigating through the file system to copy files. The terminal shows the following commands and output:

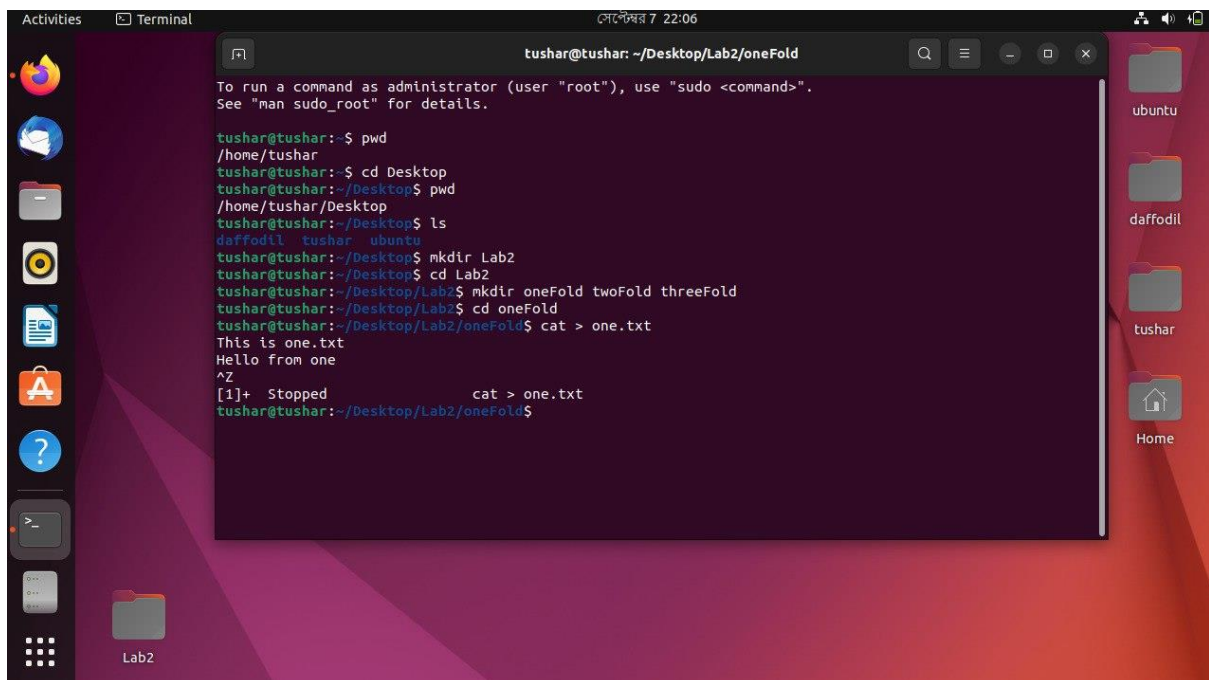
```
tushar@tushar:~/Desktop/Lab2$ cd oneFold
tushar@tushar:~/Desktop/Lab2/oneFold$ cp one.txt ../../Elite/pro
tushar@tushar:~/Desktop/Lab2/oneFold$ pwd
/home/tushar/Desktop/Lab2/oneFold
tushar@tushar:~/Desktop/Lab2/oneFold$ cd ../
tushar@tushar:~/Desktop/Lab2$ pwd
/home/tushar/Desktop/Lab2
tushar@tushar:~/Desktop/Lab2$ ls
oneFold threeFold twoFold
tushar@tushar:~/Desktop/Lab2$ cp -r oneFold copyFold
tushar@tushar:~/Desktop/Lab2$ ls
copyFold oneFold threeFold twoFold
tushar@tushar:~/Desktop/Lab2$ pwd
/home/tushar/Desktop/Lab2
tushar@tushar:~/Desktop/Lab2$ cp -r copyFold ../../Elite/pro
tushar@tushar:~/Desktop/Lab2$ ls
copyFold oneFold threeFold twoFold
tushar@tushar:~/Desktop/Lab2$ cp -r copyFold threeFold
tushar@tushar:~/Desktop/Lab2$ pwd
/home/tushar/Desktop/Lab2
tushar@tushar:~/Desktop/Lab2$ cd oneFold
tushar@tushar:~/Desktop/Lab2/oneFold$ ls
copyOne.txt one.txt two.txt
tushar@tushar:~/Desktop/Lab2/oneFold$ cp one.txt two.txt ../twoFold
tushar@tushar:~/Desktop/Lab2/oneFold$
```

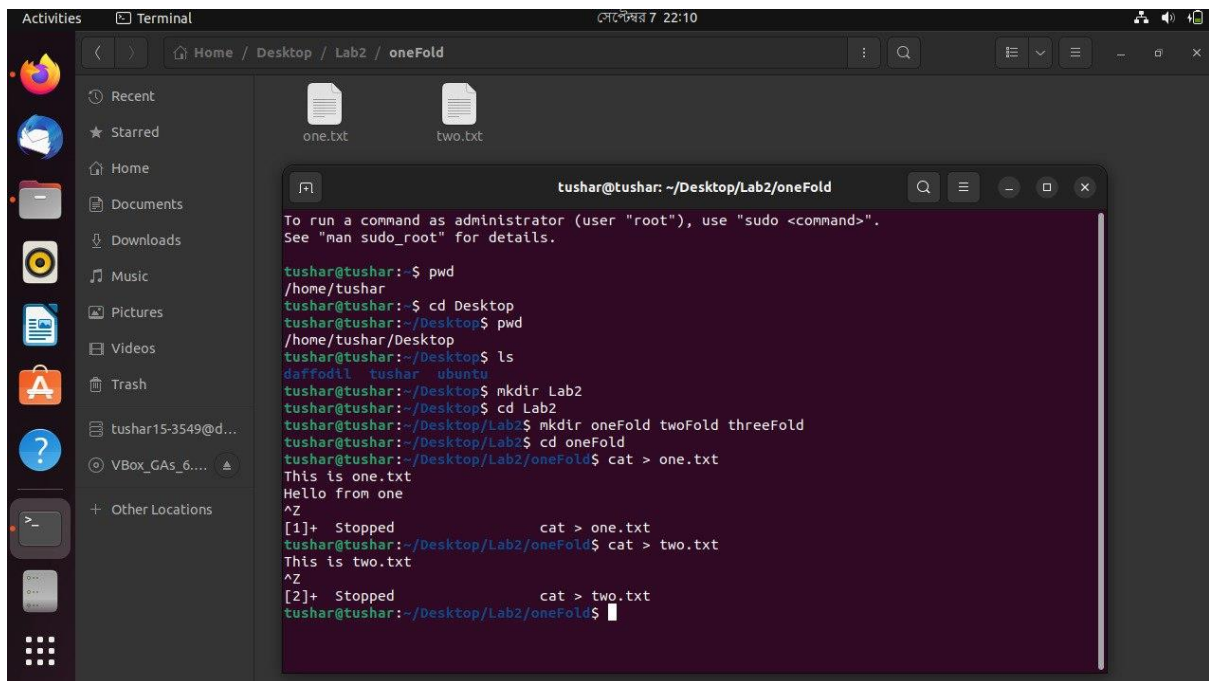


## Command 2: cat

Description: A system running Linux; Access to a terminal window / command line; cat Command Syntax.

Screen shoot of the command:





The screenshot shows a terminal window titled "Terminal" with the path "Home / Desktop / Lab2 / oneFold". The terminal output is as follows:

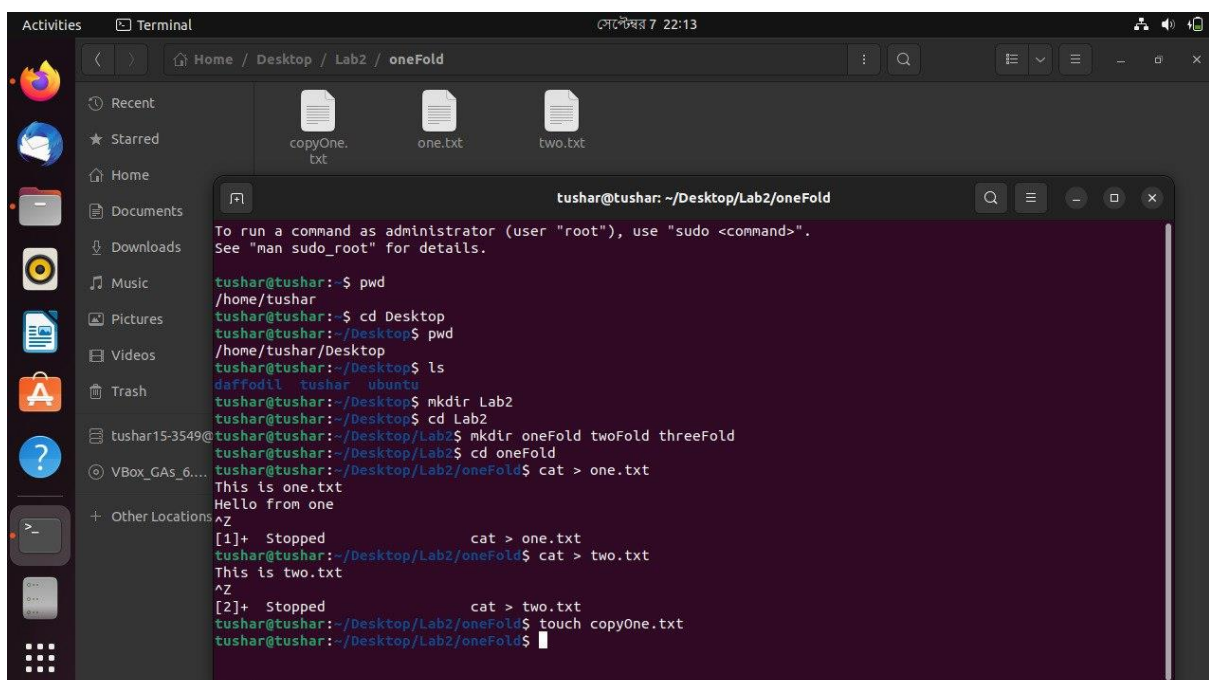
```
tushar@tushar: ~/Desktop/Lab2/oneFold
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

tushar@tushar:~$ pwd
/home/tushar
tushar@tushar:~$ cd Desktop
tushar@tushar:~/Desktop$ pwd
/home/tushar/Desktop
tushar@tushar:~/Desktop$ ls
daffodil  tushar  ubuntu
tushar@tushar:~/Desktop$ mkdir Lab2
tushar@tushar:~/Desktop$ cd Lab2
tushar@tushar:~/Desktop/Lab2$ cd oneFold
tushar@tushar:~/Desktop/Lab2/oneFold$ cat > one.txt
This is one.txt
Hello from one
^Z
[1]+  Stopped                  cat > one.txt
tushar@tushar:~/Desktop/Lab2/oneFold$ cat > two.txt
This is two.txt
^Z
[2]+  Stopped                  cat > two.txt
tushar@tushar:~/Desktop/Lab2/oneFold$
```

### Command 3: touch

Description: touch command is a way to create empty files (there are some other methods also). You can update the modification and access time of each file with the help of touch command.

Screen shoot of the command:

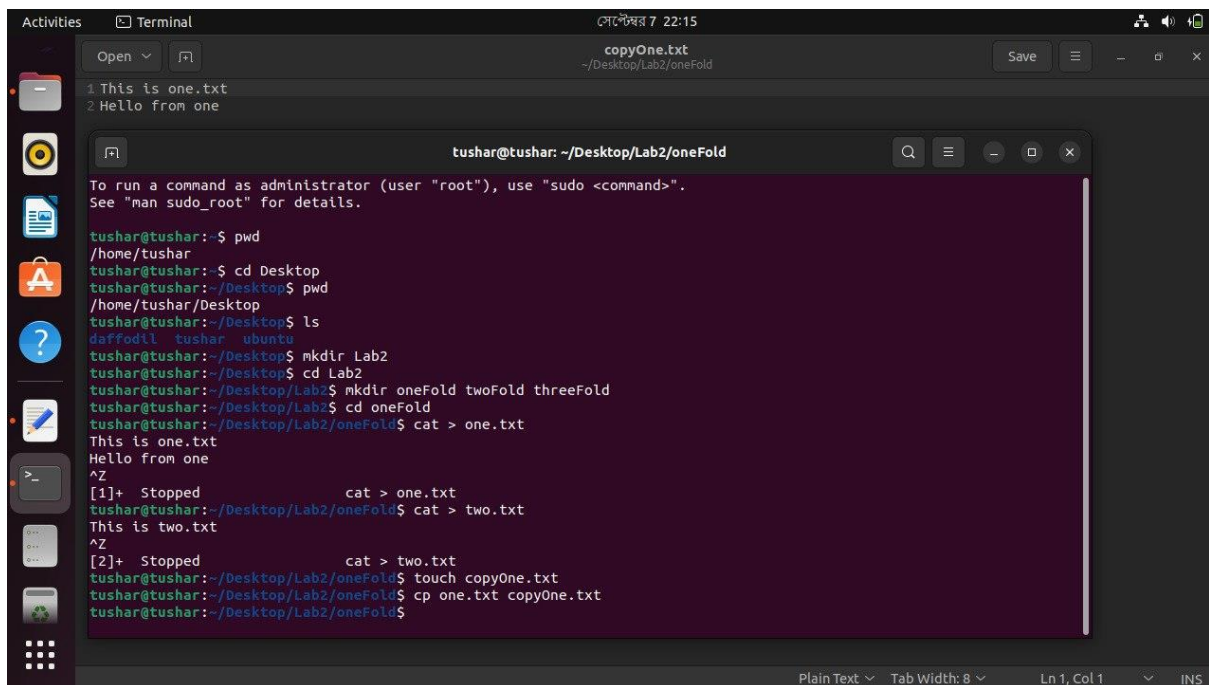


The screenshot shows a terminal window titled "Terminal" with the path "Home / Desktop / Lab2 / oneFold". The terminal output is as follows:

```
tushar@tushar: ~/Desktop/Lab2/oneFold
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

tushar@tushar:~$ pwd
/home/tushar
tushar@tushar:~$ cd Desktop
tushar@tushar:~/Desktop$ pwd
/home/tushar/Desktop
tushar@tushar:~/Desktop$ ls
daffodil  tushar  ubuntu
tushar@tushar:~/Desktop$ mkdir Lab2
tushar@tushar:~/Desktop$ cd Lab2
tushar@tushar:~/Desktop/Lab2$ mkdir oneFold twoFold threeFold
tushar@tushar:~/Desktop/Lab2$ cd oneFold
tushar@tushar:~/Desktop/Lab2/oneFold$ cat > one.txt
This is one.txt
Hello from one
^Z
[1]+  Stopped                  cat > one.txt
tushar@tushar:~/Desktop/Lab2/oneFold$ cat > two.txt
This is two.txt
^Z
[2]+  Stopped                  cat > two.txt
tushar@tushar:~/Desktop/Lab2/oneFold$ touch copyOne.txt
tushar@tushar:~/Desktop/Lab2/oneFold$
```





The screenshot shows a Linux terminal window with a dark background. The terminal title bar indicates the user is 'tushar' and the current directory is '~/Desktop/Lab2/oneFold'. The terminal content shows the following sequence of commands and outputs:

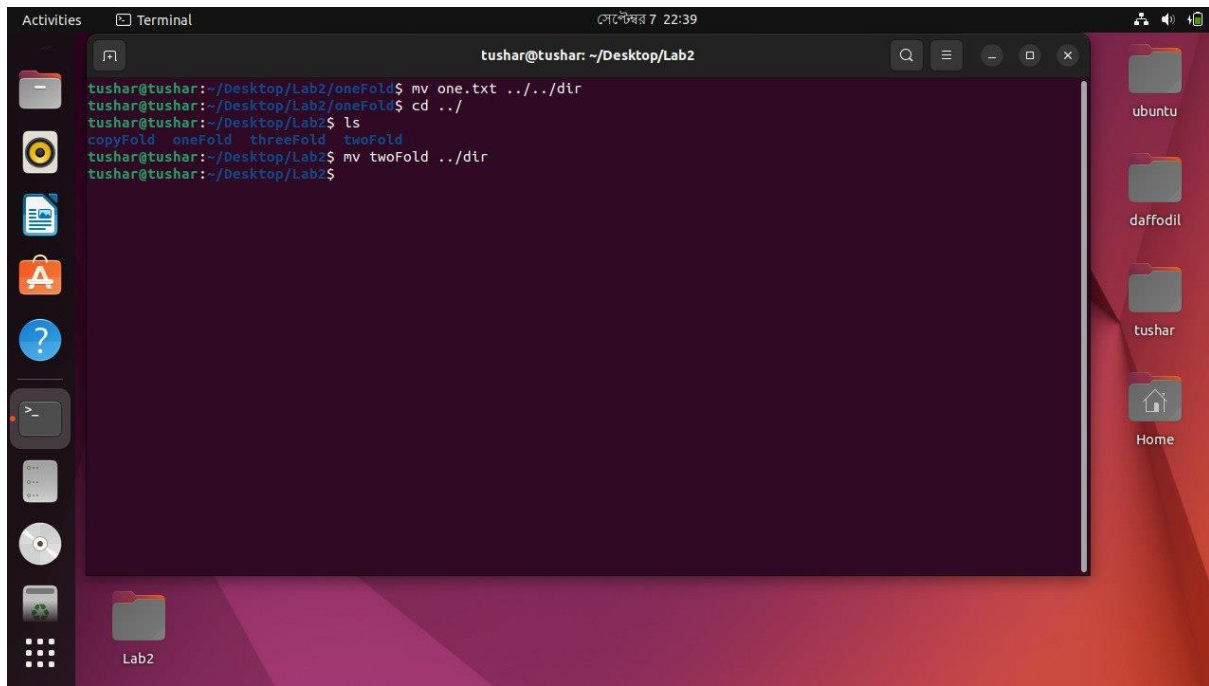
```
tushar@tushar:~$ pwd
/home/tushar
tushar@tushar:~$ cd Desktop
tushar@tushar:~/Desktop$ pwd
/home/tushar/Desktop
tushar@tushar:~/Desktop$ ls
daffodil tushar ubuntu
tushar@tushar:~/Desktop$ mkdir Lab2
tushar@tushar:~/Desktop$ cd Lab2
tushar@tushar:~/Desktop/Lab2$ mkdir oneFold twoFold threeFold
tushar@tushar:~/Desktop/Lab2$ cd oneFold
tushar@tushar:~/Desktop/Lab2/oneFold$ cat > one.txt
This is one.txt
Hello from one
^Z
[1]+  Stopped                  cat > one.txt
tushar@tushar:~/Desktop/Lab2/oneFold$ cat > two.txt
This is two.txt
^Z
[2]+  Stopped                  cat > two.txt
tushar@tushar:~/Desktop/Lab2/oneFold$ touch copyOne.txt
tushar@tushar:~/Desktop/Lab2/oneFold$ cp one.txt copyOne.txt
tushar@tushar:~/Desktop/Lab2/oneFold$
```

At the top of the terminal window, there is a text editor interface showing the content of 'copyOne.txt', which contains the lines '1 This is one.txt' and '2 Hello from one'. The terminal window also has a status bar at the bottom showing 'Plain Text', 'Tab Width: 8', 'Ln 1, Col 1', and 'INS'.

## Command 4: mv

Description of the command: The mv command termed as “Move”, which is a command-line utility to move files or directories from source to target. It supports the moving of a single file, multiple files, and directories. It is very similar to copy command (cp), used for copying and remove command (rm), used for deleting. The only difference is that move command has features of both commands for renaming and moving of files.

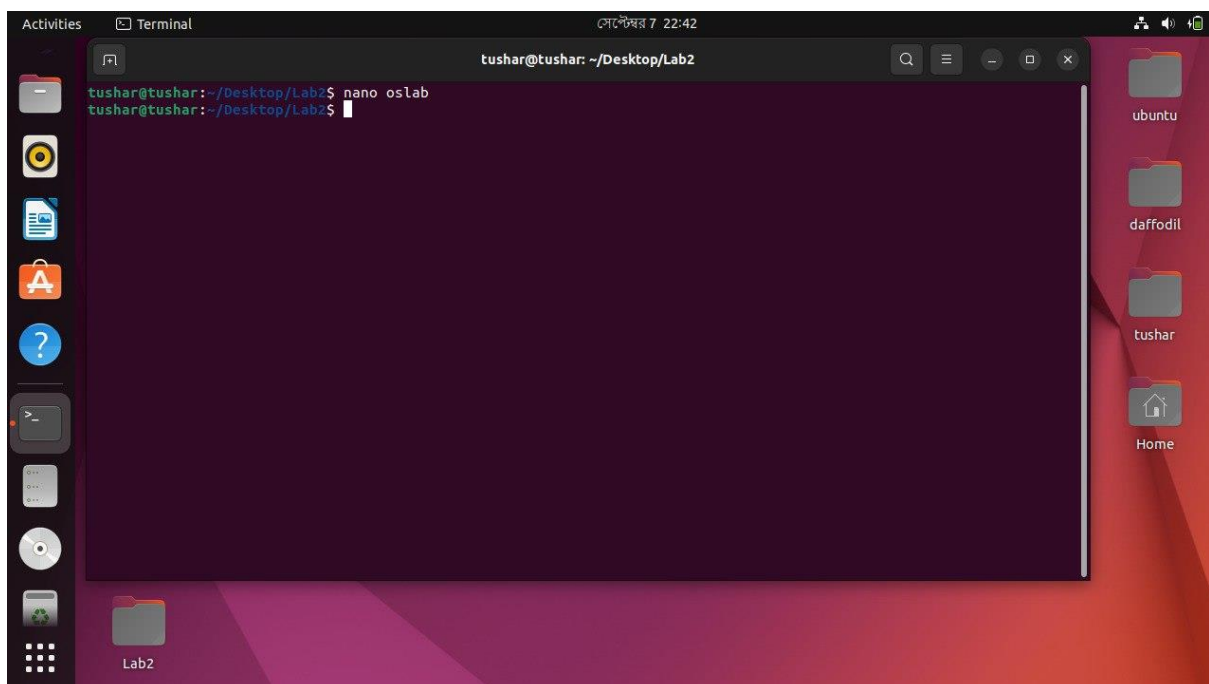
Screen shoot of the command:



## Command 4: nano

Description: Nano is an easy to use command line text editor for Unix and Linux operating systems

Screen shoot:



```
$nano oslab
```

---

Create a new file:

```
this is a new file
```

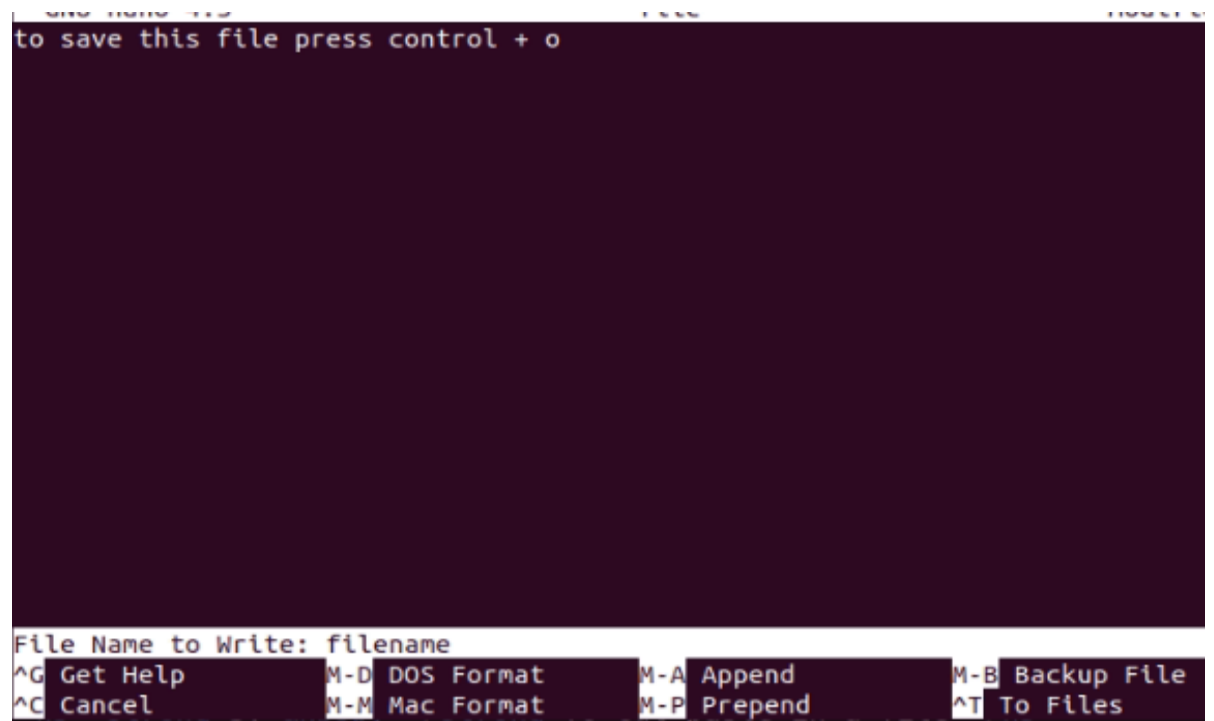


[ New File ]

^G Get Help   ^O Write Out   ^W Where Is   ^K Cut Text   ^J Justify   ^C Cur Pos  
^X Exit   ^R Read File   ^\ Replace   ^U Paste Text   ^T To Spell   ^ Go To Line

To save a file press ctrl+o :

```
to save this file press control + o
```



File Name to Write: filename

^G Get Help   ^C Cancel   ^M-D DOS Format   ^M-M Mac Format   ^M-A Append   ^M-P Prepend   ^M-B Backup File   ^T To Files



```
GNU nano 4.3
Hey there this is an article a
to paste press ctrl +u
```

here, ctrl+u for paste a line at nano

command.

```
GNU nano 4.3
Hey there this is an article a
press ctrl+w

^G Get Help  ^O Write Out  ^W W
^X Exit      ^R Read File  ^_ R
```

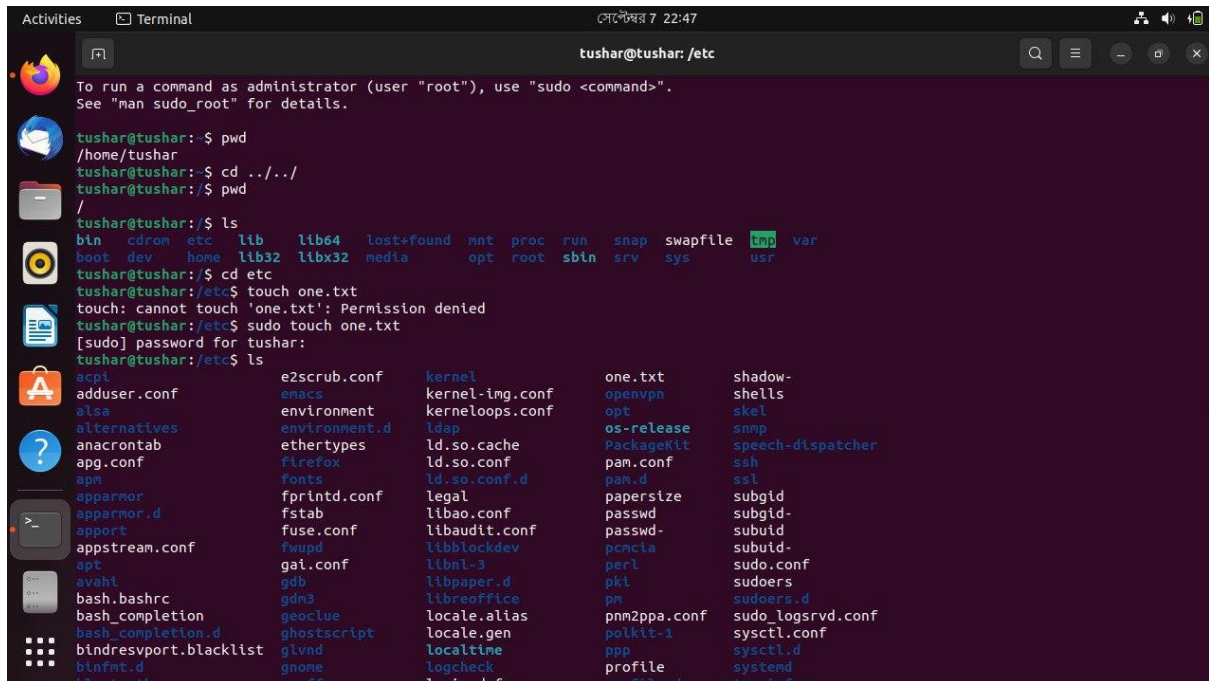
here, Press Ctrl+w .It will ask for a word to search for.

To cut and paste the selected text. Select the text which you want to cut then press Ctrl+k.

**Command 5:** sudo

Description: sudo was developed as a way to temporarily grant a user administrative rights. To make it work, use sudo before a restricted command. The system will prompt for your password. Once provided, the system runs the command.

Screen shoot:



```
Activities Terminal ৗৗৗৗৗ 7 22:47
tushar@tushar: /etc
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

tushar@tushar:~$ pwd
/home/tushar
tushar@tushar:~$ cd ../../
tushar@tushar:/$ pwd
/
tushar@tushar:/$ ls
bin  cdrom  etc  lib  lib64  lost+found  mnt  proc  run  snap  swapfile  tmp  var
boot  dev  home  lib32  libx32  media  opt  root  sbin  srv  sys  usr

tushar@tushar:/$ cd etc
tushar@tushar:/etc$ touch one.txt
touch: cannot touch 'one.txt': Permission denied
tushar@tushar:/etc$ sudo touch one.txt
[sudo] password for tushar:
tushar@tushar:/etc$ ls
acpi  e2scrub.conf  kernel  one.txt  shadow-
adduser.conf  emacs  kernel-img.conf  openvpn  shells
alsa  environment  kernelloops.conf  opt  skel
alternatives  environment.d  ldap  os-release  snmp
anacrontab  ethertypes  ld.so.cache  PackageKit  speech-dispatcher
apg.conf  firefox  ld.so.conf  pam.conf  ssh
apn  fonts  ld.so.conf.d  pam.d  ssl
apparmor  fprintd.conf  legal  papersize  subgid
apparmor.d  fstab  libao.conf  passwd  subgid-
appost  fuse.conf  libaudit.conf  passwd-  subuid
appstream.conf  fwupd  libblockdev  pcncla  subuid-
apt  gai.conf  libl-3  perl  sudo.conf
avahi  gdb  libpaper.d  pki  sudoers
bash.bashrc  gdm3  libreoffice  pm  sudoers.d
bash_completion  geoclue  locale.alias  pnm2ppa.conf  sudo_logsrvd.conf
bash_completion.d  ghostscript  locale.gen  polkit-1  sysctl.conf
bindresvport.blacklist  glvnd  localtime  ppp  sysctl.d
bluetooth  gnome  logcheck  profile  systemd
bluetooth  gconf  login.defs  profile.d  udevinfo
```