

Linux Assignment

Commad Practice

1.Manipulating Files and Directories

```
ankush.dubey@simform.dom@sf-cpu-551:~$ cd Desktop
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ touch p1
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ dir
p1 practice
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ ls
p1 practice
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ touch p2
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ touch p3
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ dir
p1 p2 p3 practice
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ cat>p1 ankush
cat: ankush: No such file or directory
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ cat>p1
hiii
^C
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ cat p1
hiii
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ mv p1
mv: missing destination file operand after 'p1'
Try 'mv --help' for more information.
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ ln
```

Basic commands for files and directories are:-

cp-copy

mv-move/rename

mkdir-make directory

rm-remove

touch-create file

cat-inserting any text

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```
ankush.dubey@simform.dom@sf-cpu-551: ~/Desktop/practice
aaa app Commands\ practices n.pdf practice
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ cd aaa
bash: cd: aaa: Not a directory
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ cd practice
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop/practice$ mkdir aa
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop/practice$ dir
aa SM
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop/practice$ rm aa
rm: cannot remove 'aa': Is a directory
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop/practice$ rm -rf aa
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop/practice$ dor
Command 'dor' not found, did you mean:
  command 'dog' from snap dog (v0.1.0)
  command 'oor' from deb openoverlayrouter (1.3.0+ds1-3)
  command 'tor' from deb tor (0.4.6.10-1)
  command 'vor' from deb vor (0.5.8-1)
  command 'dot' from deb graphviz (2.42.2-6ubuntu0.1)
  command 'dir' from deb coreutils (8.32-4.1ubuntu1.2)
  command 'dar' from deb dar (2.7.3-1)
  command 'sor' from deb pccts (1.33MR33-6.1)
See 'snap info <snapname>' for additional versions.
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop/practice$ dir
SM
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop/practice$
```

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2.List all file permissions with example

Read – Can view or copy file contents

Write – Can modify file content

Execute – Can run the file (if its executable)

```
ankush.dubey@sinform.dom@sf-cpu-551:~/Desktop/a$ grep "ohe" b
iohefsfjklInshewwww
ankush.dubey@sinform.dom@sf-cpu-551:~/Desktop/a$ stat b
  File: b
  Size: 19          Blocks: 8          IO Block: 4096   regular file
Device: fc01h/64513d Inode: 11668279   Links: 1
Access: (0644/-rw-r--r--)  Uid: (369203608/ankush.dubey@sinform.dom)   Gid: (369200513/domain users@sinform.dom)
Access: 2026-01-21 15:44:16.488682172 +0530
Modify: 2026-01-21 15:44:11.970701885 +0530
Change: 2026-01-21 15:44:11.970701885 +0530
 Birth: 2026-01-21 15:36:15.166745263 +0530
ankush.dubey@sinform.dom@sf-cpu-551:~/Desktop/a$ aa saveas ab
Command 'aa' not found, but can be installed with:
apt install astronomical-almanac
Please ask your administrator.
ankush.dubey@sinform.dom@sf-cpu-551:~/Desktop/a$ mv aa ab
ankush.dubey@sinform.dom@sf-cpu-551:~/Desktop/a$ dir
ab
ankush.dubey@sinform.dom@sf-cpu-551:~/Desktop/a$ cp ab az
ankush.dubey@sinform.dom@sf-cpu-551:~/Desktop/a$ dir
ab az b
ankush.dubey@sinform.dom@sf-cpu-551:~/Desktop/a$ mv ab ~/Desktop/
ankush.dubey@sinform.dom@sf-cpu-551:~/Desktop/a$ mv ab ~/Downloads/
mv: cannot stat 'ab': No such file or directory
ankush.dubey@sinform.dom@sf-cpu-551:~/Desktop/a$ mv az ~/Downloads/
ankush.dubey@sinform.dom@sf-cpu-551:~/Desktop/a$ chmod 744 ab
chmod: cannot access 'ab': No such file or directory
ankush.dubey@sinform.dom@sf-cpu-551:~/Desktop/a$ chmod 744 az
chmod: cannot access 'az': No such file or directory
ankush.dubey@sinform.dom@sf-cpu-551:~/Desktop/a$ chmod 744 b
ankush.dubey@sinform.dom@sf-cpu-551:~/Desktop/a$ chmod 7 b
ankush.dubey@sinform.dom@sf-cpu-551:~/Desktop/a$ cd ..
ankush.dubey@sinform.dom@sf-cpu-551:~/Desktop/a$ cd ..
ankush.dubey@sinform.dom@sf-cpu-551:~/Desktop/a$ cd Downloads
ankush.dubey@sinform.dom@sf-cpu-551:~/Downloads/a$ rm -f az
ankush.dubey@sinform.dom@sf-cpu-551:~/Downloads/a$ dir
Employee_Acknowledgment_Summary_and_Consent.pdf Homebrew-brew-5.0.11-8-g8582f2a\ (1).tar.gz Homebrew-brew-5.0.11-8-g8582f2a.tar.gz sdsf The\ Linux\ Command\ Line.pdf
ankush.dubey@sinform.dom@sf-cpu-551:~/Downloads/a$ rm -r sdsf
ankush.dubey@sinform.dom@sf-cpu-551:~/Downloads/a$ dir
Employee_Acknowledgment_Summary_and_Consent.pdf Homebrew-brew-5.0.11-8-g8582f2a\ (1).tar.gz Homebrew-brew-5.0.11-8-g8582f2a.tar.gz The\ Linux\ Command\ Line.pdf
```

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3.List all running process

command:-

ps(currently running processes).

```
ankush.dubey@inform.domsf-cpu-551: ~/Desktop$ ps
  PID TTY          TIME CMD
 19591 pts/0    00:00:00 bash
  74570 pts/0    00:00:00 less
  88662 pts/0    00:00:00 grep
 131727 pts/0    00:00:00 vi
 141658 pts/0    00:00:00 vi
 164640 pts/0    00:00:00 vi
 184384 pts/0    00:00:00 ps
ankush.dubey@inform.domsf-cpu-551: ~/Desktop$
```

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command :top(all tasks)

Tasks: 434 total, 1 running, 433 sleeping, 0 stopped, 0 zombie										
%Cpu(s): 1.7 us, 1.4 sy, 0.0 ni, 96.8 id, 0.1 wa, 0.0 hi, 0.0 si, 0.0 st										
MiB Mem : 15838.8 total, 4329.9 free, 7441.5 used, 4067.4 buff/cache										
MiB Swap: 1952.0 total, 1952.0 free, 0.0 used. 6931.8 avail Mem										
PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+ COMMAND
7185	ankush.+	20	0	1397.2g	185392	109048	S	3.0	1.1	0:16.69 msedge
6645	ankush.+	20	0	892392	55836	40736	S	2.0	0.3	0:07.70 gnome-terminal-
3738	ankush.+	20	0	1833580	197596	139872	S	1.3	1.2	4:56.61 Xorg
18505	ankush.+	20	0	20.5g	177220	119228	S	1.3	1.1	2:04.02 project-on-time
4080	ankush.+	20	0	5880880	286084	128692	S	1.0	1.8	4:50.95 gnome-shell
1003	avahi	20	0	22080	7040	3712	S	0.7	0.0	2:24.36 avahi-daemon
1007	root	20	0	344548	18896	16080	S	0.7	0.1	0:40.31 NetworkManager
1176	root	20	0	530252	31232	26368	S	0.7	0.2	0:24.01 rustdesk
6756	ankush.+	20	0	49.3g	997048	316328	S	0.7	6.1	6:01.88 msedge
648	root	19	-1	56608	26240	25088	S	0.3	0.2	0:06.61 systemd-journal
2441	root	20	0	173876	14848	11648	S	0.3	0.1	0:02.99 cups-browsed
4371	ankush.+	20	0	162764	8192	7424	S	0.3	0.1	0:01.85 at-spi2-registr
6807	ankush.+	20	0	48.5g	209460	104052	S	0.3	1.3	2:08.26 msedge
7191	ankush.+	20	0	1395.5g	144900	94336	S	0.3	0.9	0:09.64 msedge
8237	ankush.+	20	0	1395.5g	200116	119504	S	0.3	1.2	0:12.14 msedge
18415	ankush.+	20	0	391828	42152	26416	S	0.3	0.3	0:03.14 seahorse
18509	ankush.+	20	0	11992	2120	1408	S	0.3	0.0	0:07.99 memfd:runtime
33910	root	20	0	0	0	0	I	0.3	0.0	0:01.63 kworker/7:0-events
34587	ankush.+	20	0	3189808	60096	43136	S	0.3	0.4	0:14.62 gjs
63304	ankush.+	20	0	1392.3g	248012	135456	S	0.3	1.5	0:20.69 msedge
90666	ankush.+	20	0	22908	4864	3712	R	0.3	0.0	0:00.08 top
1	root	20	0	167128	11884	8172	S	0.0	0.1	0:05.05 systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.00 kthreadd
3	root	20	0	0	0	0	S	0.0	0.0	0:00.00 pool_workqueue_release
4	root	0	-20	0	0	0	I	0.0	0.0	0:00.00 kworker/R-rcu_g
5	root	0	-20	0	0	0	I	0.0	0.0	0:00.00 kworker/R-rcu_p
6	root	0	-20	0	0	0	I	0.0	0.0	0:00.00 kworker/R-slub_
7	root	0	-20	0	0	0	I	0.0	0.0	0:00.00 kworker/R-netns
10	root	0	-20	0	0	0	I	0.0	0.0	0:00.00 kworker/0:0H-events_highpri
12	root	0	-20	0	0	0	I	0.0	0.0	0:00.00 kworker/R-mm_pe
13	root	20	0	0	0	0	I	0.0	0.0	0:00.00 rcu_tasks_kthread
14	root	20	0	0	0	0	I	0.0	0.0	0:00.00 rcu_tasks_rude_kthread
15	root	20	0	0	0	0	I	0.0	0.0	0:00.00 rcu_tasks_trace_kthread
16	root	20	0	0	0	0	S	0.0	0.0	0:00.33 ksoftirqd/0
17	root	20	0	0	0	0	I	0.0	0.0	0:18.72 rcu_preempt
18	root	rt	0	0	0	0	S	0.0	0.0	0:00.04 migration/0
19	root	-51	0	0	0	0	S	0.0	0.0	0:00.00 idle_inject/0
20	root	20	0	0	0	0	S	0.0	0.0	0:00.00 cpuhp/0
21	root	20	0	0	0	0	S	0.0	0.0	0:00.00 cpuhp/1
22	root	-51	0	0	0	0	S	0.0	0.0	0:00.00 idle_inject/1
23	root	rt	0	0	0	0	S	0.0	0.0	0:00.22 migration/1
24	root	20	0	0	0	0	S	0.0	0.0	0:00.21 ksoftirqd/1
26	root	0	-20	0	0	0	I	0.0	0.0	0:00.00 kworker/1:0H-events_highpri
27	root	20	0	0	0	0	S	0.0	0.0	0:00.00 cpuhp/2
28	root	-51	0	0	0	0	S	0.0	0.0	0:00.00 idle_inject/2
29	root	rt	0	0	0	0	S	0.0	0.0	0:00.22 migration/2
30	root	20	0	0	0	0	S	0.0	0.0	0:00.38 ksoftirqd/2
32	root	0	-20	0	0	0	I	0.0	0.0	0:00.00 kworker/2:0H-events_highpri

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4. Find particular process by it's name

```
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop/practice$ pgrep bash
29653
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop/practice$
```

5. How to kill any particular process

Command: kill process_id

forcefully: kill -9 processs_id

```
ankush.dubey@simform.dom@sf-cpu-551:~$ vi
ankush.dubey@simform.dom@sf-cpu-551:~$ ps
  PID TTY          TIME CMD
 76438 pts/0        00:00:00 bash
 76565 pts/0        00:00:00 ps
ankush.dubey@simform.dom@sf-cpu-551:~$ kill -9 75565
bash: kill: (75565) - No such process
ankush.dubey@simform.dom@sf-cpu-551:~$ kill -9 76438
```

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6. Vi or Vim for file editing

Vi file_name → For creating a file

i→ **insert text**

dd-delete texts

yy-copy

:wq → save and exit

:q! → exit without save

/ → search

:q → quit

%s/replacer/replacing/y → for substitue

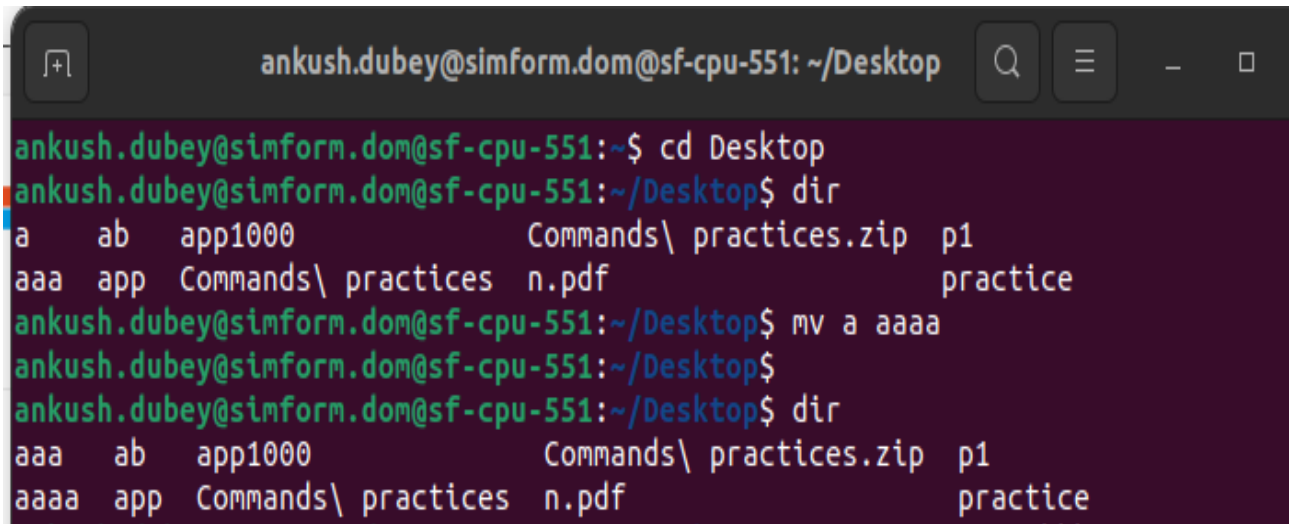
[illegible]

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7 . Moving and Renaming Files

command- mv file1 file2

A terminal window with a dark background and light-colored text. The window title bar shows the user 'ankush.dubey@simform.dom' and the current directory '~/Desktop'. The terminal output shows the user navigating to the Desktop directory and listing files. The files listed are 'a', 'ab', 'app1000', 'Commands\ practices.zip', and 'p1'. The user then runs the command 'mv a aaaa', and the terminal shows the updated directory listing where 'a' has been replaced by 'aaaa'.

```
ankush.dubey@simform.dom@sf-cpu-551: ~/$ cd Desktop
ankush.dubey@simform.dom@sf-cpu-551: ~/Desktop$ dir
a    ab    app1000          Commands\ practices.zip  p1
aaa  app  Commands\ practices  n.pdf                  practice
ankush.dubey@simform.dom@sf-cpu-551: ~/Desktop$ mv a aaaa
ankush.dubey@simform.dom@sf-cpu-551: ~/Desktop$
ankush.dubey@simform.dom@sf-cpu-551: ~/Desktop$ dir
aaa  ab    app1000          Commands\ practices.zip  p1
aaaa app  Commands\ practices  n.pdf                  practice
```


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8. Remove Files and Directories

command:- rm file_name(remove file)
rm -r dir_name(remove dir)
rm -f file_name(remove file)

```
ankush.dubey@simform.dom@sf-cpu-551: ~/Downloads
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ rm p2
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ dir
app app1000 p3 practice
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ ls -l
total 12
-rw-r--r-- 1 ankush.dubey@simform.dom domain users@simform.dom 68 Jan 21 14:19 app
-rw-r--r-- 1 ankush.dubey@simform.dom domain users@simform.dom 39 Jan 21 14:06 app1000
-rw-r--r-- 1 ankush.dubey@simform.dom domain users@simform.dom 0 Jan 21 12:10 p3
drwxr-xr-x 2 ankush.dubey@simform.dom domain users@simform.dom 4096 Jan 21 11:44 practice
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ ls
app app1000 p3 practice
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ touch p1
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ ls
app app1000 p1 p3 practice
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ rm -r p3
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ dir
app app1000 p1 practice
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ cd..
cd..: command not found
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ cd .
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ cd ..
ankush.dubey@simform.dom@sf-cpu-551:~/Downloads$ cd Downloads
ankush.dubey@simform.dom@sf-cpu-551:~/Downloads$ rm -r aaaa
ankush.dubey@simform.dom@sf-cpu-551:~/Downloads$ ls
Employee_Acknowledgment_Summary_and_Consent.pdf 'Homebrew-brew-5.0.11-8-g8582f2a (1).tar.gz' Homebrew-brew-5.0.11-8-g8582f2a.tar.gz 'The Linux Command Line.pdf'
ankush.dubey@simform.dom@sf-cpu-551:~/Downloads$ ls
Employee_Acknowledgment_Summary_and_Consent.pdf 'Homebrew-brew-5.0.11-8-g8582f2a (1).tar.gz' Homebrew-brew-5.0.11-8-g8582f2a.tar.gz sdsf 'The Linux Command Line.pdf'
ankush.dubey@simform.dom@sf-cpu-551:~/Downloads$
```

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9. List the directory contents

command:- dir

```
ankush.dubey@simform.dom@sf-cpu-551: ~/Downloads
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ rm p2
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ dir
app app1000 p3 practice
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ ls -l
total 12
-rw-r--r-- 1 ankush.dubey@simform.dom domain users@simform.dom 68 Jan 21 14:19 app
-rw-r--r-- 1 ankush.dubey@simform.dom domain users@simform.dom 39 Jan 21 14:06 app1000
-rw-r--r-- 1 ankush.dubey@simform.dom domain users@simform.dom 0 Jan 21 12:10 p3
drwxr-xr-x 2 ankush.dubey@simform.dom domain users@simform.dom 4096 Jan 21 11:44 practice
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ ls
app app1000 p3 practice
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ touch p1
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ ls
app app1000 p1 p3 practice
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ rm -r p3
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ dir
app app1000 p1 practice
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ cd..
cd.: command not found
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ cd .
ankush.dubey@simform.dom@sf-cpu-551:~/Desktop$ cd ..
ankush.dubey@simform.dom@sf-cpu-551:~/Downloads$ cd Downloads
ankush.dubey@simform.dom@sf-cpu-551:~/Downloads$ rm -r aaaa
ankush.dubey@simform.dom@sf-cpu-551:~/Downloads$ ls
Employee_Acknowledgment_Summary_and_Consent.pdf 'Homebrew-brew-5.0.11-8-g8582f2a (1).tar.gz' Homebrew-brew-5.0.11-8-g8582f2a.tar.gz 'The Linux Command Line.pdf'
ankush.dubey@simform.dom@sf-cpu-551:~/Downloads$ ls
Employee_Acknowledgment_Summary_and_Consent.pdf 'Homebrew-brew-5.0.11-8-g8582f2a (1).tar.gz' Homebrew-brew-5.0.11-8-g8582f2a.tar.gz sdsf 'The Linux Command Line.pdf'
ankush.dubey@simform.dom@sf-cpu-551:~/Downloads$
```

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10.How I can get the path of working directory.

Command: pwd(provides path of working directory)

```
ankush.dubey@inform.dongst-cpu-551: /Downloads$ pwd
/home/ankush.dubey@inform.don/Downloads
ankush.dubey@inform.dongst-cpu-551: /Downloads$
```

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11.How to Search in Vim/Vi

command: /

[illegible]

12.How Do You Do A Search And Replace in Vim/Vi

Command : - %s/replacer/replacement/y

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```

hiii
hiii
hiii
hiii
hlo
hlo
very goodmorning
Very goodmorning
:set number

: %s/good /very good/g

```

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13. How we can save and exit from Vim/Vi file.

Command:- :wq-Save and exit
:q-exit
:q! Exit without save

[illegible]

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14. Change file owner and group.

Command: `sudo useadd username`

`sudo chown name file_name`

`sudo groupadd group_name`

`sudo chown :mygroup file_name`

```
chown: invalid user: 'a'
labex:project/ $ sudo chown ank a
labex:project/ $ dir
a aa
labex:project/ $ who am i
labex:project/ $
labex:project/ $ whoami
labex
labex:project/ $ mkdir h
labex:project/ $ cd h
labex:h/ $ cd ..
labex:project/ $ chown ank h
chown: changing ownership of 'h': Operation not permitted
labex:project/ $ sudo chown ank h
labex:project/ $ dir
a aa h
labex:project/ $ ls -l a
-rw-rw-r-- 1 ank labex 0 Jan 22 16:58 a
labex:project/ $ ls -l h
total 0
labex:project/ $ ls -l aa
-rw-rw-r-- 1 labex labex 0 Jan 22 17:12 aa
labex:project/ $
```

```
labex:project/ $ ls -l a
-rw-rw-r-- 1 ank labex 0 Jan 22 16:58 a
labex:project/ $ ls -l h
total 0
labex:project/ $ ls -l aa
-rw-rw-r-- 1 labex labex 0 Jan 22 17:12 aa
labex:project/ $ sudo chown :mygroup a
labex:project/ $ ls -l a
-rw-rw-r-- 1 ank mygroup 0 Jan 22 16:58 a
labex:project/ $
```

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15. Change group ownership

command:- chgrp groupname file_name

```
labex:project/ $ sudo chown :mygroup a
labex:project/ $ ls -l a
-rw-rw-r-- 1 ank mygroup 0 Jan 22 16:58 a
labex:project/ $ sudo chgrp aa
chgrp: missing operand after 'aa'
Try 'chgrp --help' for more information.
labex:project/ $ chgrp sudo aa
labex:project/ $ ls -l aa
-rw-rw-r-- 1 labex sudo 0 Jan 22 17:12 aa
labex:project/ $ ls -l h
```