

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

Linux Assignment

Commad Practice

```
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$
```

Linux Assignment

Commad Practice

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@inform.dongtf-cpu-5511: /Desktop/$ grep "ohe" b
Linksfjklshwww
ankush.dubey@inform.dongtf-cpu-5511: /Desktop/$ 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@inform.dom)   Gid: (369200513/domain users@inform.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@inform.dongtf-cpu-5511: /Desktop/$ aa saveas ab
Command 'aa' not found, but can be installed with:
apt install astronomical-almnac
Please ask your administrator.
ankush.dubey@inform.dongtf-cpu-5511: /Desktop/$ mv aa ab
ankush.dubey@inform.dongtf-cpu-5511: /Desktop/$ dir
ab .b
ankush.dubey@inform.dongtf-cpu-5511: /Desktop/$ cp ab az
ankush.dubey@inform.dongtf-cpu-5511: /Desktop/$ dir
ab .az .b
ankush.dubey@inform.dongtf-cpu-5511: /Desktop/$ mv ab ~/Desktop/
ankush.dubey@inform.dongtf-cpu-5511: /Desktop/$ mv ab ~/Downloads/
mv: cannot stat 'ab': No such file or directory
ankush.dubey@inform.dongtf-cpu-5511: /Desktop/$ mv az ~/Downloads/
ankush.dubey@inform.dongtf-cpu-5511: /Desktop/$ chmod 744 ab
chmod: cannot access 'ab': No such file or directory
ankush.dubey@inform.dongtf-cpu-5511: /Desktop/$ chmod 744 az
chmod: cannot access 'az': No such file or directory
ankush.dubey@inform.dongtf-cpu-5511: /Desktop/$ chmod 744 b
ankush.dubey@inform.dongtf-cpu-5511: /Desktop/$ chmod 7 b
ankush.dubey@inform.dongtf-cpu-5511: /Desktop/$ cd ..
ankush.dubey@inform.dongtf-cpu-5511: /Desktop/$ cd ..
ankush.dubey@inform.dongtf-cpu-5511: /Desktop/$ cd Downloads
ankush.dubey@inform.dongtf-cpu-5511: /Downloads/$ rm -f az
ankush.dubey@inform.dongtf-cpu-5511: /Downloads/$ dir
Employee_Acknowledgment_Summary_and_Consent.pdf Honebrew-brew-5.0.11-8-g8582f2a\ {1}.tar.gz Honebrew-brew-5.0.11-8-g8582f2a.tar.gz sdsf The\ Linux\ Command\ Line.pdf
ankush.dubey@inform.dongtf-cpu-5511: /Downloads/$ rm -r sdsf
ankush.dubey@inform.dongtf-cpu-5511: /Downloads/$ dir
Employee_Acknowledgment_Summary_and_Consent.pdf Honebrew-brew-5.0.11-8-g8582f2a\ {1}.tar.gz Honebrew-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@kali:~$ ps
  PID TTY          TIME CMD
 5551 pts/0    00:00:00 sshd
 70176 pts/0    00:00:00 ls
 90522 pts/0    00:00:00 grep
131727 pts/0    00:00:00 vi
141616 pts/0    00:00:00 vi
150644 pts/0    00:00:00 vi
154364 pts/0    00:00:00 ps
```


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Commad Practice

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

Linux Assignment

Commad Practice

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
```

Linux Assignment

Commad Practice

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

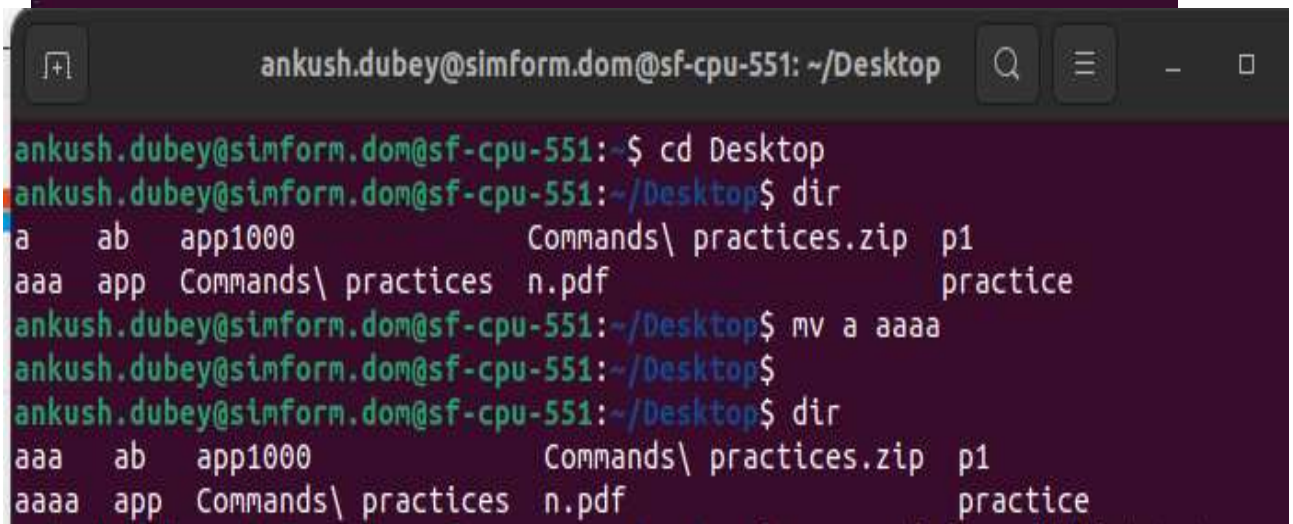
/ → search

:q → quit

%s/replacer/replacing/y → for substitue

```
hll
hll
hll
hll
hlo
hlo
hlo
very goodmornig
very goodmornig
:set number
```

7.



The image shows a terminal window with a dark purple background. The window title is 'ankush.dubey@simform.dom@sf-cpu-551: ~/Desktop'. The terminal output shows the following commands and results:

```
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
```

Moving and Renaming Files

command- mv file1 file2

Linux Assignment

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Linux Assignment

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8. Remove Files and Directories

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

```
ankush.dubey@inform.dongrf-cpu-5511:~/Downloads$ rm p2
ankush.dubey@inform.dongrf-cpu-5511:~/Downloads$ dir
app app1000 p3 practice
ankush.dubey@inform.dongrf-cpu-5511:~/Downloads$ ls -l
total 12
-rw-r--r-- 1 ankush.dubey@inform.dongrf-cpu-5511:~/Downloads 68 Jan 21 14:19 app
-rw-r--r-- 1 ankush.dubey@inform.dongrf-cpu-5511:~/Downloads 39 Jan 21 14:00 app1000
-rw-r--r-- 1 ankush.dubey@inform.dongrf-cpu-5511:~/Downloads 8 Jan 21 12:18 p3
drwxr-xr-x 2 ankush.dubey@inform.dongrf-cpu-5511:~/Downloads 4096 Jan 21 11:44 practice
ankush.dubey@inform.dongrf-cpu-5511:~/Downloads$ ls
app app1000 p3 practice
ankush.dubey@inform.dongrf-cpu-5511:~/Downloads$ touch p1
ankush.dubey@inform.dongrf-cpu-5511:~/Downloads$ ls
app app1000 p1 p3 practice
ankush.dubey@inform.dongrf-cpu-5511:~/Downloads$ rm -r p3
ankush.dubey@inform.dongrf-cpu-5511:~/Downloads$ dir
app app1000 p1 practice
ankush.dubey@inform.dongrf-cpu-5511:~/Downloads$ cd ..
cd.: command not found
ankush.dubey@inform.dongrf-cpu-5511:~/Downloads$ cd .
ankush.dubey@inform.dongrf-cpu-5511:~/Downloads$ cd ..
ankush.dubey@inform.dongrf-cpu-5511:~/Downloads$ cd Downloads
ankush.dubey@inform.dongrf-cpu-5511:~/Downloads$ rm -r .000
ankush.dubey@inform.dongrf-cpu-5511:~/Downloads$ ls
Employee_Acknowledgment_Summary_and_Conse.pdf 'Numbrew-brew-3.0.11-0-g8322f2a (1).tar.gz' 'Numbrew-brew-3.0.11-0-g8322f2a.tar.gz' 'The Linux Command Line.pdf'
ankush.dubey@inform.dongrf-cpu-5511:~/Downloads$ ls
Employee_Acknowledgment_Summary_and_Conse.pdf 'Numbrew-brew-3.0.11-0-g8322f2a (1).tar.gz' 'Numbrew-brew-3.0.11-0-g8322f2a.tar.gz' 'The Linux Command Line.pdf'
ankush.dubey@inform.dongrf-cpu-5511:~/Downloads$
```

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9. List the directory contents

command:- dir

```
ankush.dubey@sinform.dongrf-cpu-5511:~/Downloads$ rm p2
ankush.dubey@sinform.dongrf-cpu-5511:~/Downloads$ dir
app app1000 p3 practice
ankush.dubey@sinform.dongrf-cpu-5511:~/Downloads$ ls -l
total 12
-rw-r--r-- 1 ankush.dubey@sinform.dongrf-cpu-5511:~/Downloads 68 Jan 21 14:19 app
-rw-r--r-- 1 ankush.dubey@sinform.dongrf-cpu-5511:~/Downloads 39 Jan 21 14:00 app1000
-rw-r--r-- 1 ankush.dubey@sinform.dongrf-cpu-5511:~/Downloads 8 Jan 21 12:18 p3
drwxr-xr-x 2 ankush.dubey@sinform.dongrf-cpu-5511:~/Downloads 4096 Jan 21 11:44 practice
ankush.dubey@sinform.dongrf-cpu-5511:~/Downloads$ ls
app app1000 p3 practice
ankush.dubey@sinform.dongrf-cpu-5511:~/Downloads$ touch p1
ankush.dubey@sinform.dongrf-cpu-5511:~/Downloads$ ls
app app1000 p1 p3 practice
ankush.dubey@sinform.dongrf-cpu-5511:~/Downloads$ rm -r p3
ankush.dubey@sinform.dongrf-cpu-5511:~/Downloads$ dir
app app1000 p1 practice
ankush.dubey@sinform.dongrf-cpu-5511:~/Downloads$ cd ..
cd..: command not found
ankush.dubey@sinform.dongrf-cpu-5511:~/Downloads$ cd ..
ankush.dubey@sinform.dongrf-cpu-5511:~/Downloads$ cd ..
ankush.dubey@sinform.dongrf-cpu-5511:~/Downloads$ cd Downloads
ankush.dubey@sinform.dongrf-cpu-5511:~/Downloads$ rm -r aaaa
ankush.dubey@sinform.dongrf-cpu-5511:~/Downloads$ ls
Employee_Acknowledgment_Summary_and_Consent.pdf 'Homebrew-brew-3.9.11-8-g828272a.tar.gz' 'Homebrew-brew-3.9.11-8-g828272a.tar.gz' 'The Linux Command Line.pdf'
ankush.dubey@sinform.dongrf-cpu-5511:~/Downloads$ ls
Employee_Acknowledgment_Summary_and_Consent.pdf 'Homebrew-brew-3.9.11-8-g828272a.tar.gz' 'Homebrew-brew-3.9.11-8-g828272a.tar.gz' 'The Linux Command Line.pdf'
ankush.dubey@sinform.dongrf-cpu-5511:~/Downloads$
```

Linux Assignment

Commad Practice

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

Command: pwd(provides path of working directory)

A terminal window with a dark purple background. The prompt is 'ankush.dubey@inform.dangit-ipw-551: /home/ankush.dubey\$'. The user enters 'pwd' and the output is '/home/ankush.dubey@inform.dangit-ipw-551: /home/ankush.dubey\$'.

Linux Assignment

Commad Practice

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

Linux Assignment

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```
httl
httl
httl
httl
hlo
hlo
very goodmorning
very goodmorning
:set number

%$good /very good/g
```


Linux Assignment

Commad Practice

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

Command:- :wq-Save and exit

:q-exit

:q! Exit without save

A screenshot of a Vim editor window. The background is dark purple. The text is light blue. The first four lines of the file contain the word "hll". The fifth line contains "hlo". The sixth line contains "very goodmorning". The seventh line contains "very goodmorning". The eighth line contains the command ":set number". The command prompt ":" is visible at the end of the eighth line. The status bar at the bottom left shows "100" and a small icon.

Linux Assignment

Commad Practice

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/ $
```

Linux Assignment

Commad Practice

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
```