

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

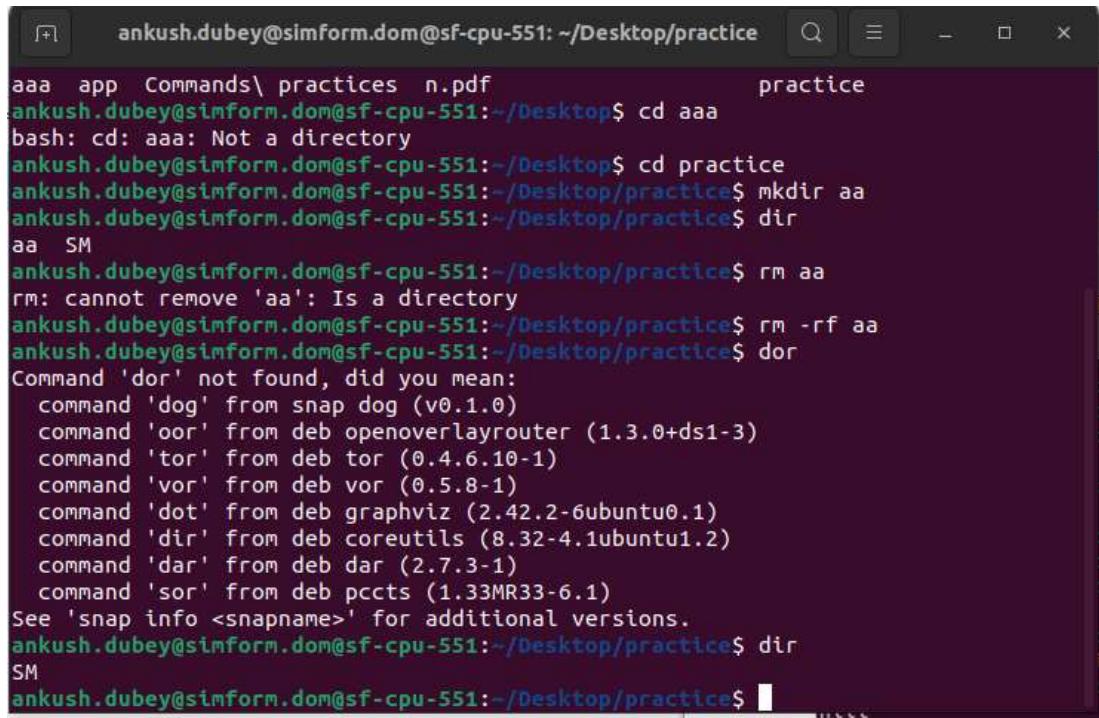
rm-remove

touch-create file

cat-inserting any text

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A screenshot of a terminal window titled "ankush.dubey@simform.dom@sf-cpu-551: ~/Desktop/practice". The terminal displays a series of Linux commands and their outputs:

```
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 openoverlayoutrouter (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@inform.dom:~/cpu-5511:/Desktop$ grep "ohe" b
ankush.dubey@inform.dom:~/cpu-5511:/Desktop$ stat b
  File: b
  Size: 19          Blocks: 8          10 Block: 4096   regular file
Device: fc01h/64513d  Inode: 11668279  Links: 1
Access: (0644/-rw-r--r--)  Uid: (36920808/ankush.dubey@inform.dom)  Gid: (369208513/domain users@inform.dom)
Access: 2026-01-21 15:44:16.4886682172 +0530
Modify: 2026-01-21 15:44:11.970701885 +0530
Change: 2026-01-21 15:44:11.970701885 +0530
Birth: 2026-01-21 15:36:15.166745265 +0530
ankush.dubey@inform.dom:~/cpu-5511:/Desktop$ aa saves ab
Command 'aa' not found, but can be installed with:
apt install astronomical-almanac
Please ask your administrator.
ankush.dubey@inform.dom:~/cpu-5511:/Desktop$ mv aa ab
ankush.dubey@inform.dom:~/cpu-5511:/Desktop$ dir
ab  b
ankush.dubey@inform.dom:~/cpu-5511:/Desktop$ cp ab az
ankush.dubey@inform.dom:~/cpu-5511:/Desktop$ dir
ab  az  b
ankush.dubey@inform.dom:~/cpu-5511:/Desktop$ mv ab ~/Desktop/
ankush.dubey@inform.dom:~/cpu-5511:/Desktop$ mv ab ~/Downloads/
mv: cannot stat 'ab': No such file or directory
ankush.dubey@inform.dom:~/cpu-5511:/Desktop$ mv az ~/Downloads/
ankush.dubey@inform.dom:~/cpu-5511:/Desktop$ chmod 744 ab
chmod: cannot access 'ab': No such file or directory
ankush.dubey@inform.dom:~/cpu-5511:/Desktop$ chmod 744 az
chmod: cannot access 'az': No such file or directory
ankush.dubey@inform.dom:~/cpu-5511:/Desktop$ chmod 744 b
ankush.dubey@inform.dom:~/cpu-5511:/Desktop$ chmod 7  b
ankush.dubey@inform.dom:~/cpu-5511:/Desktop$ cd ..
ankush.dubey@inform.dom:~/cpu-5511:/$ cd Downloads
ankush.dubey@inform.dom:~/cpu-5511:/Downloads$ rm -f az
ankush.dubey@inform.dom:~/cpu-5511:/Downloads$ rm -r sdsf
ankush.dubey@inform.dom:~/cpu-5511:/Downloads$ dir
Employee_Acknowledgment_Summary_and_Consent.pdf  Homebrew-brew-5.0.11-0-g8582f2a\ (1).tar.gz  Homebrew-brew-5.0.11-0-g8582f2a.tar.gz  sdsf  The\ Linux\ Command\ Line.pdf
ankush.dubey@inform.dom:~/cpu-5511:/Downloads$ rm -r sdsf
ankush.dubey@inform.dom:~/cpu-5511:/Downloads$ dir
Employee_Acknowledgment_Summary_and_Consent.pdf  Homebrew-brew-5.0.11-0-g8582f2a\ (1).tar.gz  Homebrew-brew-5.0.11-0-g8582f2a.tar.gz  The\ Linux\ Command\ Line.pdf
```

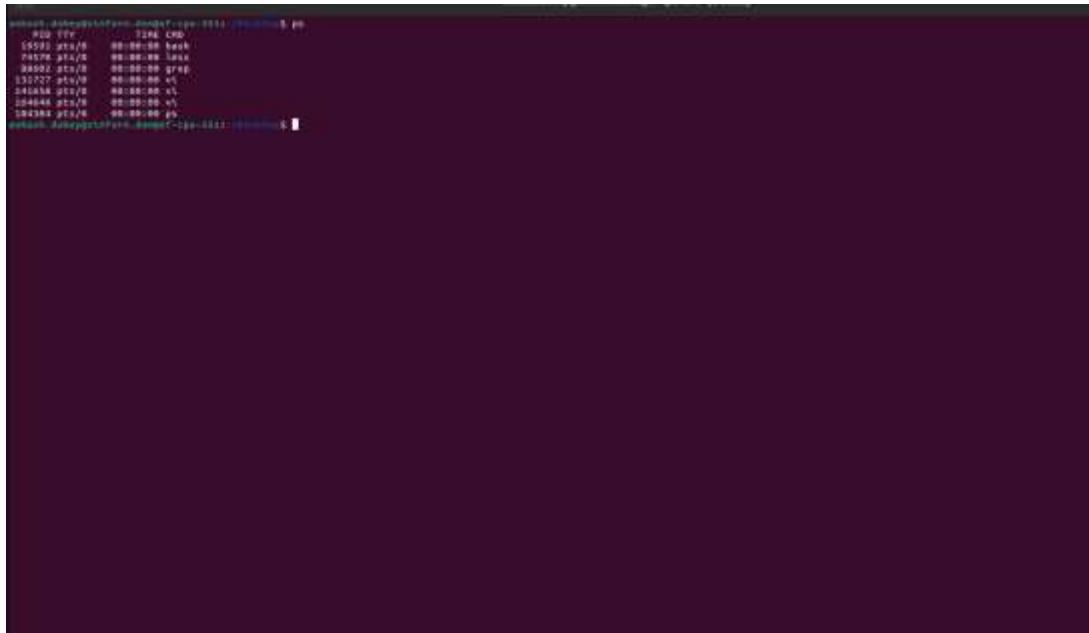
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3.List all running process

command:-

ps(currently running processes).



```
ankush@ankush-VirtualBox:~$ ps
  PID TTY          TIME CMD
 429 ttys0    00:00:00 bash
 74578 pts/5    00:00:00 lsxa
 74579 pts/5    00:00:00 lsxa
 131727 pts/5    00:00:00 zsh
 244648 pts/5    00:00:00 xl
 244649 pts/5    00:00:00 xl
 244651 pts/5    00:00:00 ps
ankush@ankush-VirtualBox:~$
```

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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 process_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

The screenshot shows a terminal window with two panes. The top pane displays the contents of a file named 'a' in the vi editor. The file contains several lines of text, including 'Hello', 'Hello', 'Hello', 'Hello', 'Hello', 'Hello', and 'very goodmorning'. The bottom pane shows a command-line session:

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

A small number '7.' is visible in the top right corner of the terminal window.

Moving and Renaming Files

command- mv file1 file2

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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)

```
git:                Jan 21 14:49
ankush.dubey@simform-dm9sf-cpu-551: ~ $ rm p2
ankush.dubey@simform-dm9sf-cpu-551: ~ $ dir
app app1000 p3 practice
ankush.dubey@simform-dm9sf-cpu-551: ~ $ ls -l
total 12
-rw-r--r-- 1 ankush.dubey@simform-dm9sf-cpu-551: ~ 68 Jan 21 14:19 app
-rw-r--r-- 1 ankush.dubey@simform-dm9sf-cpu-551: ~ 39 Jan 21 14:00 app1000
-rw-r--r-- 1 ankush.dubey@simform-dm9sf-cpu-551: ~ 8 Jan 21 12:18 p3
drwxr-xr-x 2 ankush.dubey@simform-dm9sf-cpu-551: ~ 4096 Jan 21 11:44 practice
ankush.dubey@simform-dm9sf-cpu-551: ~ $ ls
app app1000 p3 practice
ankush.dubey@simform-dm9sf-cpu-551: ~ $ touch p1
ankush.dubey@simform-dm9sf-cpu-551: ~ $ ls
app app1000 p1 p3 practice
ankush.dubey@simform-dm9sf-cpu-551: ~ $ rm -r p3
ankush.dubey@simform-dm9sf-cpu-551: ~ $ dir
app app1000 p1 practice
ankush.dubey@simform-dm9sf-cpu-551: ~ $ cd ..
cd: command not found
ankush.dubey@simform-dm9sf-cpu-551: ~ $ cd ..
ankush.dubey@simform-dm9sf-cpu-551: ~ $ cd Downloads
ankush.dubey@simform-dm9sf-cpu-551: ~ $ rm -rf assa
ankush.dubey@simform-dm9sf-cpu-551: ~ $ ls
Employee_Acknowledgment_Summary_and_Consent.pdf  mindee-brix-2.0.11-0-g0032f2a(1).tar.gz  mindee-brix-2.0.11-0-g0032f2a.tar.gz  'The Linux Command Line.pdf'
ankush.dubey@simform-dm9sf-cpu-551: ~ $ ls
Employee_Acknowledgment_Summary_and_Consent.pdf  mindee-brix-2.0.11-0-g0032f2a(1).tar.gz  mindee-brix-2.0.11-0-g0032f2a.tar.gz  'The Linux Command Line.pdf'
ankush.dubey@simform-dm9sf-cpu-551: ~ $
```

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9. List the directory contents

command:- dir

```
Des                               Jan 21 14:49
ankush.dubey@sinform.dongif-cpu-551:~$ rm p2
ankush.dubey@sinform.dongif-cpu-551:~$ dir
app app1000 p3 practice
ankush.dubey@sinform.dongif-cpu-551:~$ ls -l
total 12
-rw-r--r-- 1 ankush.dubey@sinform.don domain users@sinform.don 68 Jan 21 14:19 app
-rw-r--r-- 1 ankush.dubey@sinform.don domain users@sinform.don 39 Jan 21 14:06 app1000
-rw-r--r-- 1 ankush.dubey@sinform.don domain users@sinform.don 8 Jan 21 12:08 p3
drwxr-xr-x 2 ankush.dubey@sinform.don domain users@sinform.don 4096 Jan 21 11:44 practice
ankush.dubey@sinform.dongif-cpu-551:~$ ls
app app1000 p3 practice
ankush.dubey@sinform.dongif-cpu-551:~$ touch p1
ankush.dubey@sinform.dongif-cpu-551:~$ ls
app app1000 p1 p3 practice
ankush.dubey@sinform.dongif-cpu-551:~$ rm -r p3
ankush.dubey@sinform.dongif-cpu-551:~$ dir
app app1000 p1 practice
ankush.dubey@sinform.dongif-cpu-551:~$ cd ..
cd: command not found
ankush.dubey@sinform.dongif-cpu-551:~$ cd .
ankush.dubey@sinform.dongif-cpu-551:~$ cd ..
ankush.dubey@sinform.dongif-cpu-551:~$ cd Downloads
ankush.dubey@sinform.dongif-cpu-551:~$ rm -r aaaa
ankush.dubey@sinform.dongif-cpu-551:~$ ls
Employee_Acknowledgment_Summary_and_Consent.pdf  'moodlews-brce-2.8.11-8-g8003f2a ([].tar.gz)  moodlews-brce-2.8.11-8-g8003f2a.tar.gz' 'The Linux Command Line.pdf'
ankush.dubey@sinform.dongif-cpu-551:~$ ls
Employee_Acknowledgment_Summary_and_Consent.pdf  'moodlews-brce-2.8.11-8-g8003f2a ([].tar.gz)  moodlews-brce-2.8.11-8-g8003f2a.tar.gz' 'The Linux Command Line.pdf'
ankush.dubey@sinform.dongif-cpu-551:~$
```

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

Command: pwd(provides path of working directory)

```
ankush.dubey@ankush-dubey-OptiPlex-5090:~$ pwd
/home/ankush.dubey@ankush-dubey:~$ cd Downloads
ankush.dubey@ankush-dubey:~/Downloads$ pwd
/home/ankush.dubey@ankush-dubey:~/Downloads$
```

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11. How to Search in Vim/Vi

command: /

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

Command : - %s/replacer/replacement/y

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```
htt  
htt  
htt  
htt  
blo  
hlo  
very goodmorning  
Very goodmorning  
iset 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



A screenshot of a terminal window showing the Vim text editor. The screen is mostly black, indicating insert mode. At the top left, there is some small white text that appears to be part of the terminal interface or a window title. The main content area shows the following text:

```
httt  
httt  
httt  
httt  
hlo  
hlo  
very goodmorning  
very goodmorning  
:set number
```

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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

```
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/ $ 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
```