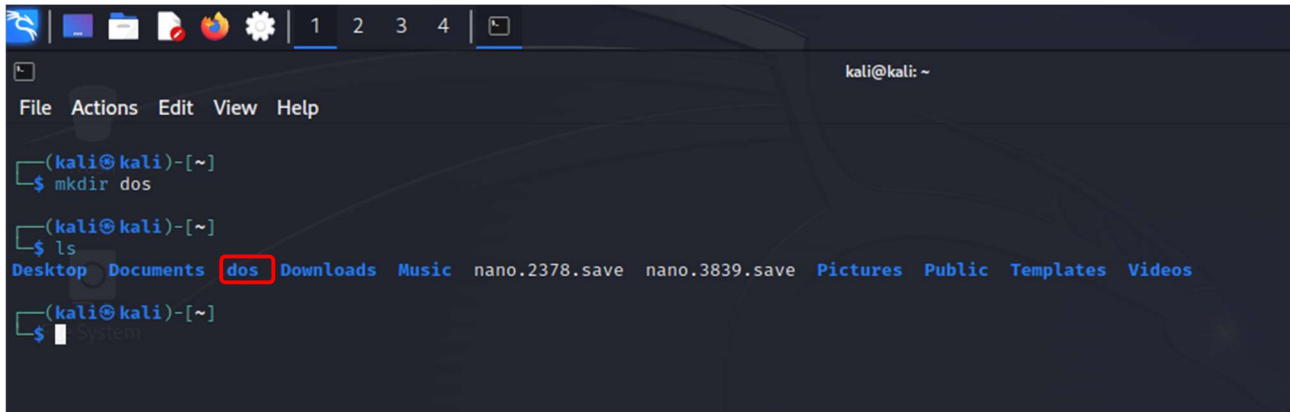


## Esercizio 1

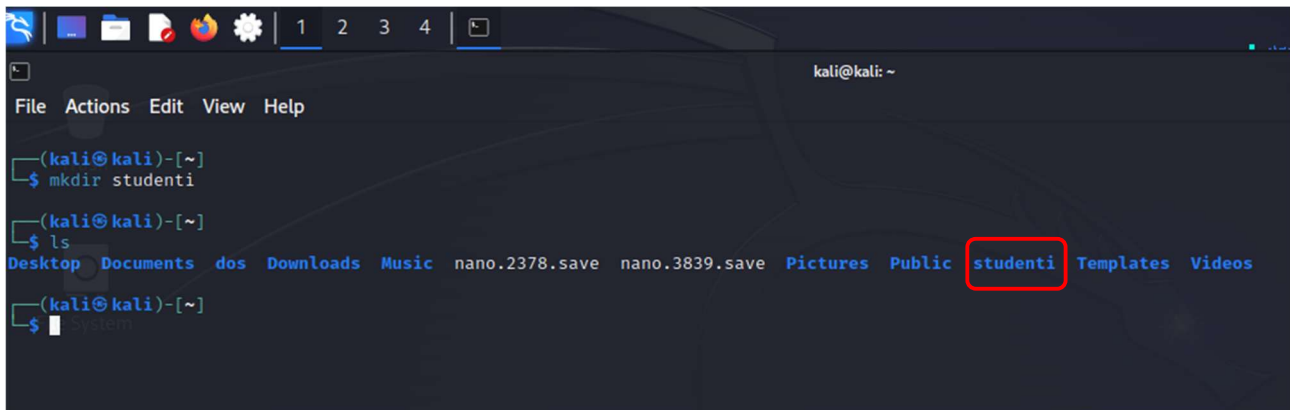
Creazione di cartelle, sottocartelle e file come da consegna:

-Cartelle



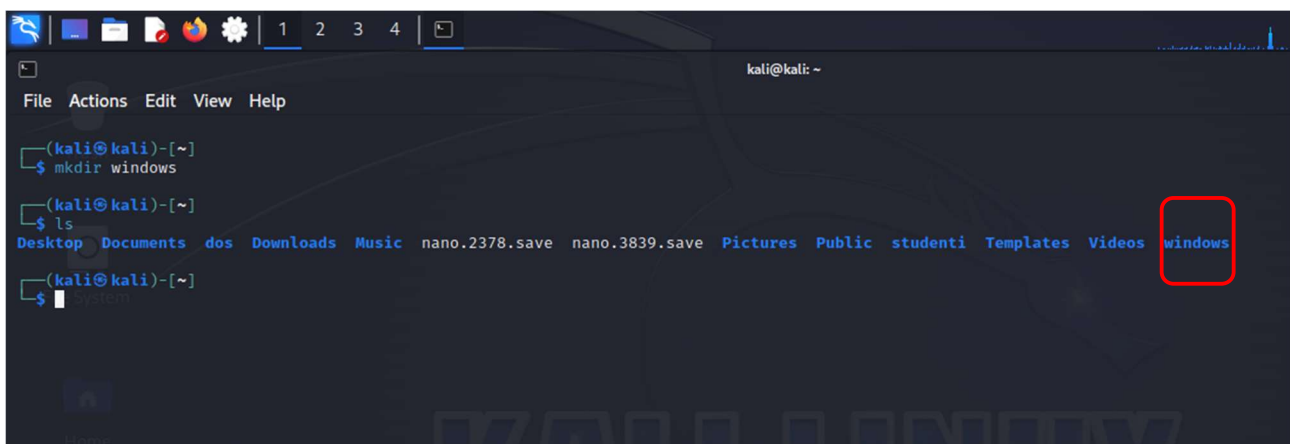
```
kali@kali: ~  
File Actions Edit View Help  
(kali@kali)-[~]  
$ mkdir dos  
(kali@kali)-[~]  
$ ls  
Desktop Documents dos Downloads Music nano.2378.save nano.3839.save Pictures Public Templates Videos  
(kali@kali)-[~]  
$
```

A terminal window on a Kali Linux desktop. The terminal shows the command `mkdir dos` being executed. The prompt changes to `(kali@kali)-[~]`. The `ls` command is then run, displaying a list of files and directories. The `dos` directory is highlighted with a red box in the output.



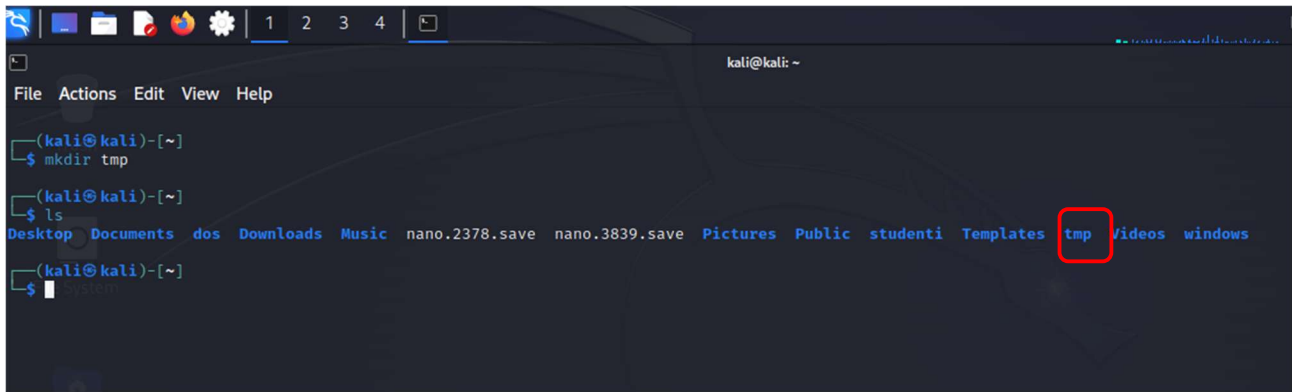
```
kali@kali: ~  
File Actions Edit View Help  
(kali@kali)-[~]  
$ mkdir studenti  
(kali@kali)-[~]  
$ ls  
Desktop Documents dos Downloads Music nano.2378.save nano.3839.save Pictures Public studenti Templates Videos  
(kali@kali)-[~]  
$
```

A terminal window on a Kali Linux desktop. The terminal shows the command `mkdir studenti` being executed. The prompt changes to `(kali@kali)-[~]`. The `ls` command is then run, displaying a list of files and directories. The `studenti` directory is highlighted with a red box in the output.



```
kali@kali: ~  
File Actions Edit View Help  
(kali@kali)-[~]  
$ mkdir windows  
(kali@kali)-[~]  
$ ls  
Desktop Documents dos Downloads Music nano.2378.save nano.3839.save Pictures Public studenti Templates Videos windows  
(kali@kali)-[~]  
$
```

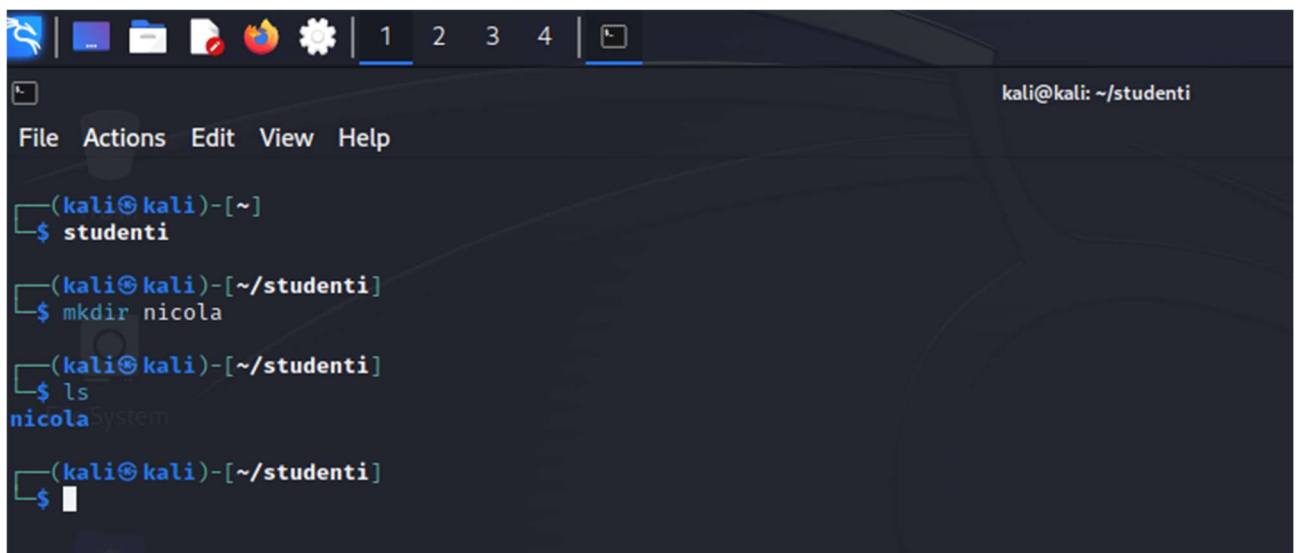
A terminal window on a Kali Linux desktop. The terminal shows the command `mkdir windows` being executed. The prompt changes to `(kali@kali)-[~]`. The `ls` command is then run, displaying a list of files and directories. The `windows` directory is highlighted with a red box in the output.



A terminal window on a Kali Linux system. The prompt is `kali@kali: ~`. The user enters `mkdir tmp` to create a new directory. Then, they enter `ls` to list the contents of the home directory. The output shows various standard Linux directories: `Desktop`, `Documents`, `dos`, `Downloads`, `Music`, `nano.2378.save`, `nano.3839.save`, `Pictures`, `Public`, `studenti`, `Templates`, `tmp` (highlighted with a red box), `Videos`, and `windows`. The prompt then changes to `kali@kali: ~` with a cursor on a new line.

```
(kali@kali)-[~]  
$ mkdir tmp  
(kali@kali)-[~]  
$ ls  
Desktop Documents dos Downloads Music nano.2378.save nano.3839.save Pictures Public studenti Templates tmp Videos windows  
(kali@kali)-[~]  
$
```

- Sottocartelle:



A terminal window on a Kali Linux system. The prompt is `kali@kali: ~/studenti`. The user enters `studenti` to navigate into the `studenti` directory. Then, they enter `mkdir nicola` to create a new subdirectory. Next, they enter `ls` to list the contents of the `studenti` directory. The output shows `nicola` and `system`. The prompt then changes to `kali@kali: ~/studenti` with a cursor on a new line.

```
(kali@kali)-[~]  
$ studenti  
(kali@kali)-[~/studenti]  
$ mkdir nicola  
(kali@kali)-[~/studenti]  
$ ls  
nicola system  
(kali@kali)-[~/studenti]  
$
```

```
File Actions Edit View Help

(kali㉿kali)-[~/studenti]
$ mkdir anna

(kali㉿kali)-[~/studenti]
$ ls
anna nicola

(kali㉿kali)-[~/studenti]
$ mkdir matteo

(kali㉿kali)-[~/studenti]
$ ls
anna matteo nicola

(kali㉿kali)-[~/studenti]
$
```

```
File Actions Edit View Help

(kali㉿kali)-[~/studenti]
$ nicola

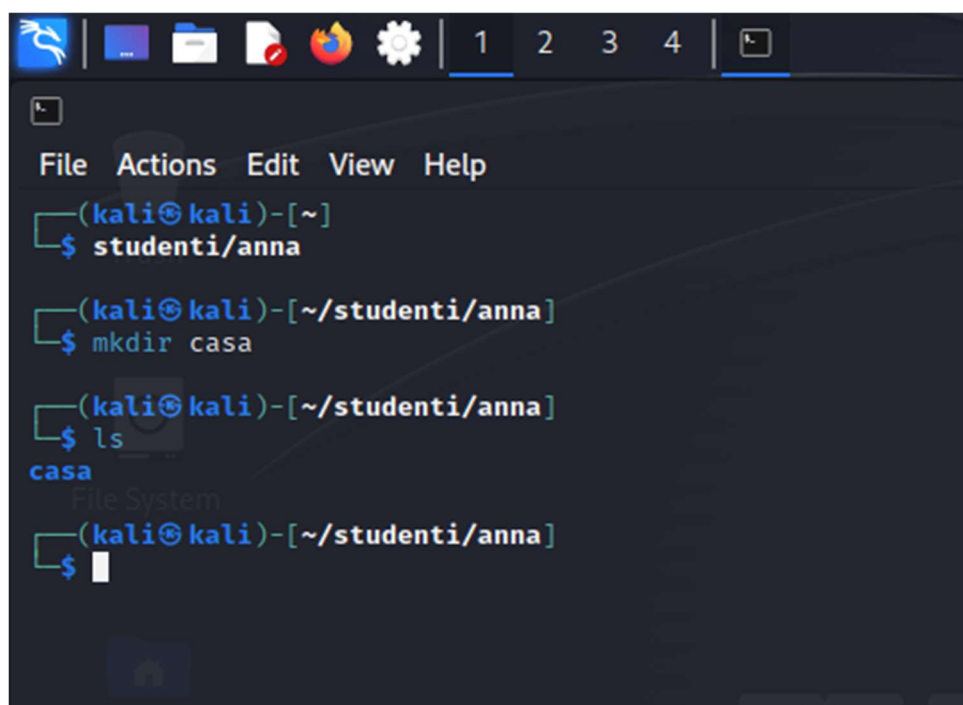
(kali㉿kali)-[~/studenti/nicola]
$ mkdir scuola

(kali㉿kali)-[~/studenti/nicola]
$ ls
scuola

(kali㉿kali)-[~/studenti/nicola]
$ mkdir lavoro

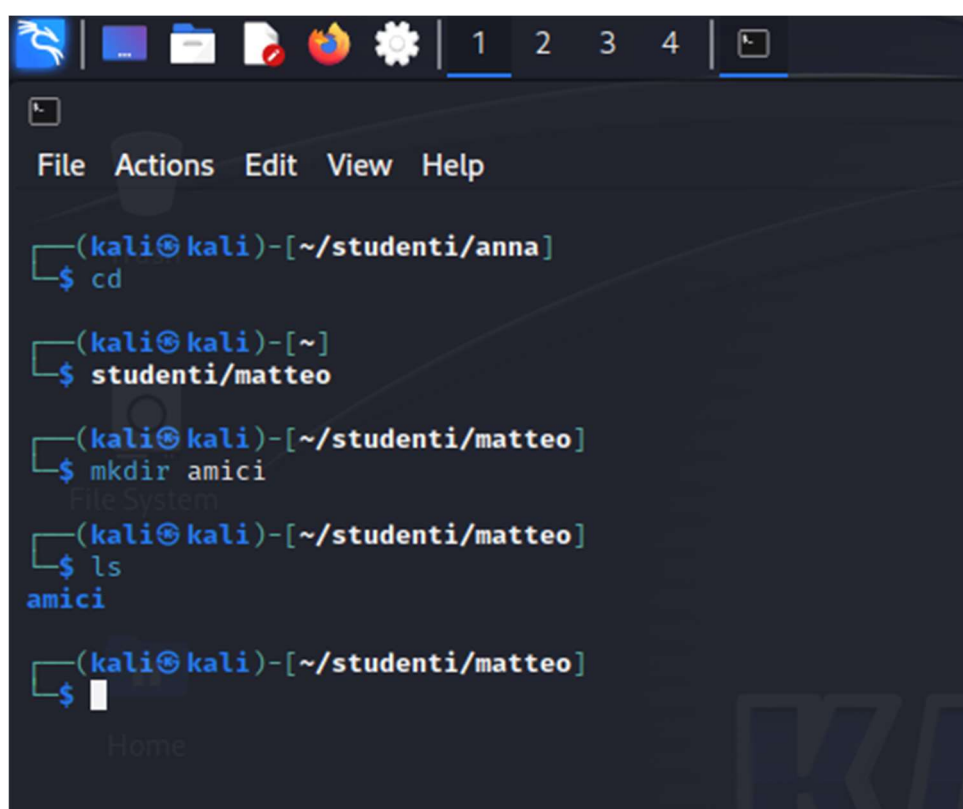
(kali㉿kali)-[~/studenti/nicola]
$ ls
lavoro scuola

(kali㉿kali)-[~/studenti/nicola]
$
```



A terminal window with a dark background and a menu bar (File, Actions, Edit, View, Help). The terminal shows the following commands and output:

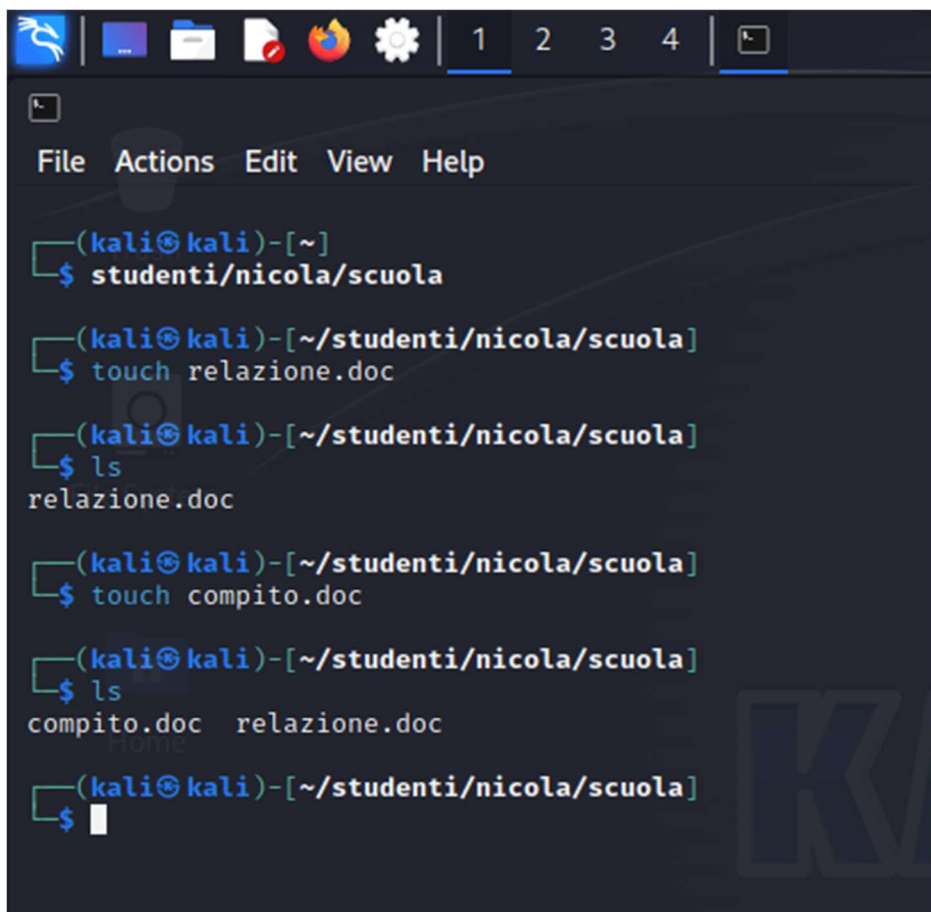
```
(kali㉿kali)-[~]  
$ studenti/anna  
  
(kali㉿kali)-[~/studenti/anna]  
$ mkdir casa  
  
(kali㉿kali)-[~/studenti/anna]  
$ ls  
casa  
  
(kali㉿kali)-[~/studenti/anna]  
$
```



A terminal window with a dark background and a menu bar (File, Actions, Edit, View, Help). The terminal shows the following commands and output:

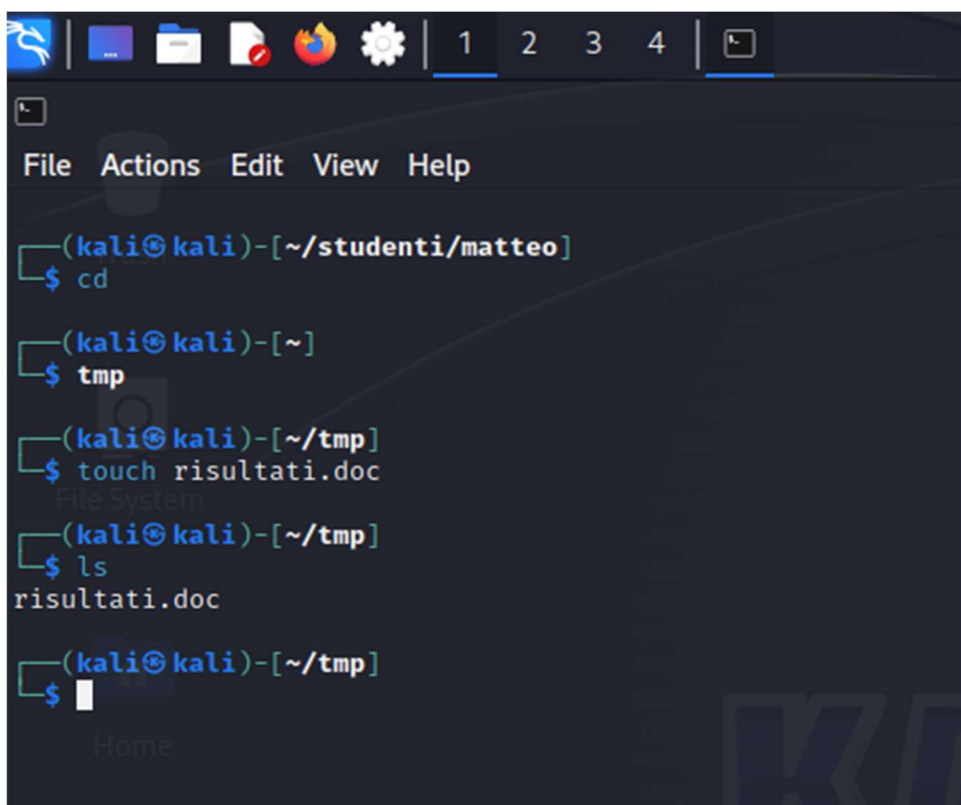
```
(kali㉿kali)-[~/studenti/anna]  
$ cd  
  
(kali㉿kali)-[~]  
$ studenti/matteo  
  
(kali㉿kali)-[~/studenti/matteo]  
$ mkdir amici  
  
(kali㉿kali)-[~/studenti/matteo]  
$ ls  
amici  
  
(kali㉿kali)-[~/studenti/matteo]  
$
```

- Files:



A terminal window with a dark background and a menu bar (File, Actions, Edit, View, Help). The terminal shows a sequence of commands and their outputs:

```
(kali㉿kali)-[~]  
$ cd /students/nicola/scuola  
  
(kali㉿kali)-[~/students/nicola/scuola]  
$ touch relazione.doc  
  
(kali㉿kali)-[~/students/nicola/scuola]  
$ ls  
relazione.doc  
  
(kali㉿kali)-[~/students/nicola/scuola]  
$ touch compito.doc  
  
(kali㉿kali)-[~/students/nicola/scuola]  
$ ls  
compito.doc  relazione.doc  
  
(kali㉿kali)-[~/students/nicola/scuola]  
$
```

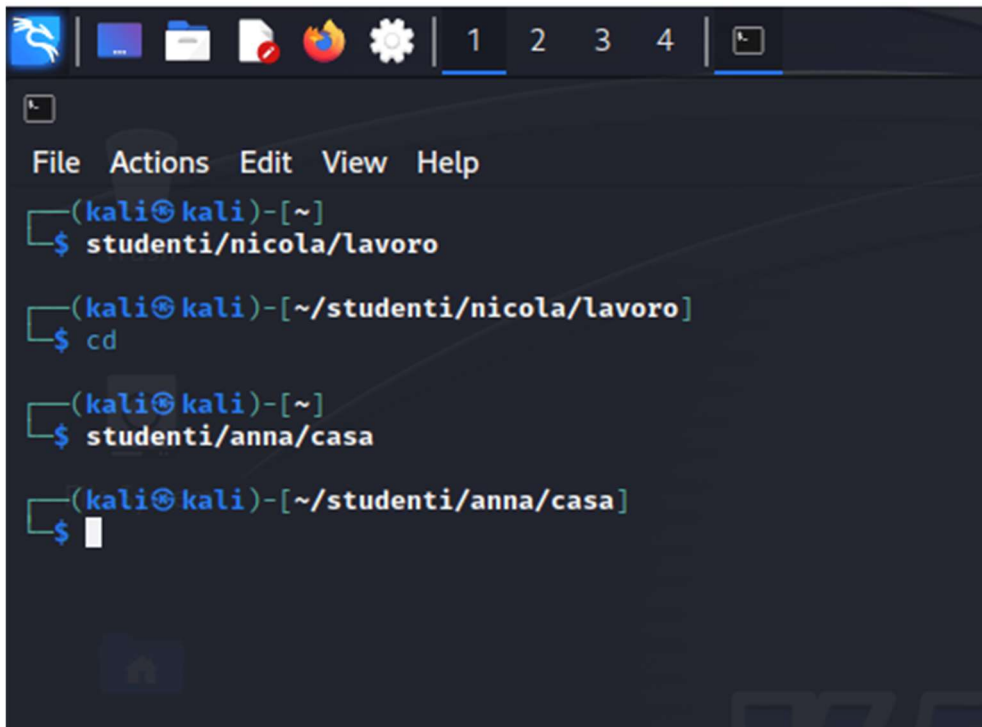


A terminal window with a dark background and a menu bar (File, Actions, Edit, View, Help). The terminal shows a sequence of commands and their outputs:

```
(kali㉿kali)-[~/students/matteo]  
$ cd ~  
  
(kali㉿kali)-[~]  
$ cd /tmp  
  
(kali㉿kali)-[~/tmp]  
$ touch risultati.doc  
  
(kali㉿kali)-[~/tmp]  
$ ls  
risultati.doc  
  
(kali㉿kali)-[~/tmp]  
$
```

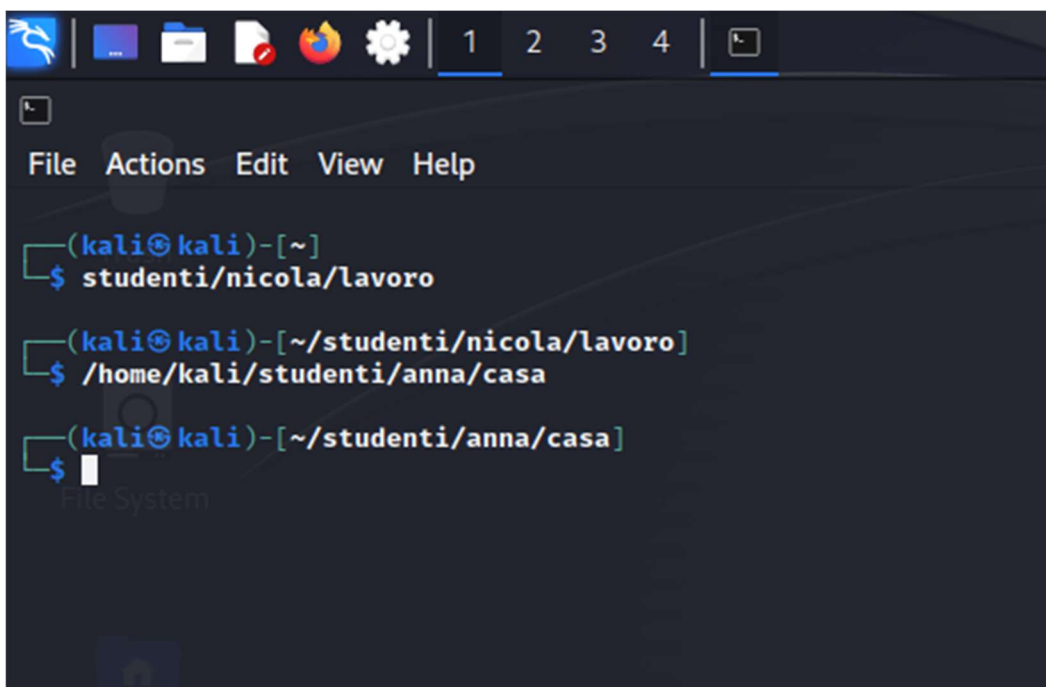
- Ti trovi nella directory lavoro (sotto Nicola), scrivere il comando per passare alla directory casa (sotto Anna) con percorso **relativo** e **assoluto**.

Relativo:



```
(kali㉿kali)-[~]  
$ studenti/nicola/lavoro  
  
(kali㉿kali)-[~/studenti/nicola/lavoro]  
$ cd  
  
(kali㉿kali)-[~]  
$ studenti/anna/casa  
  
(kali㉿kali)-[~/studenti/anna/casa]  
$
```

Assoluto:



```
(kali㉿kali)-[~]  
$ studenti/nicola/lavoro  
  
(kali㉿kali)-[~/studenti/nicola/lavoro]  
$ /home/kali/studenti/anna/casa  
  
(kali㉿kali)-[~/studenti/anna/casa]  
$
```

- a) Copia il file compito.doc dalla directory scuola nella directory corrente casa.

```
(kali㉿kali)-[~/studenti/nicola/scuola]
$ cp /home/kali/studenti/nicola/scuola/compito.doc /home/kali/studenti/anna/casa

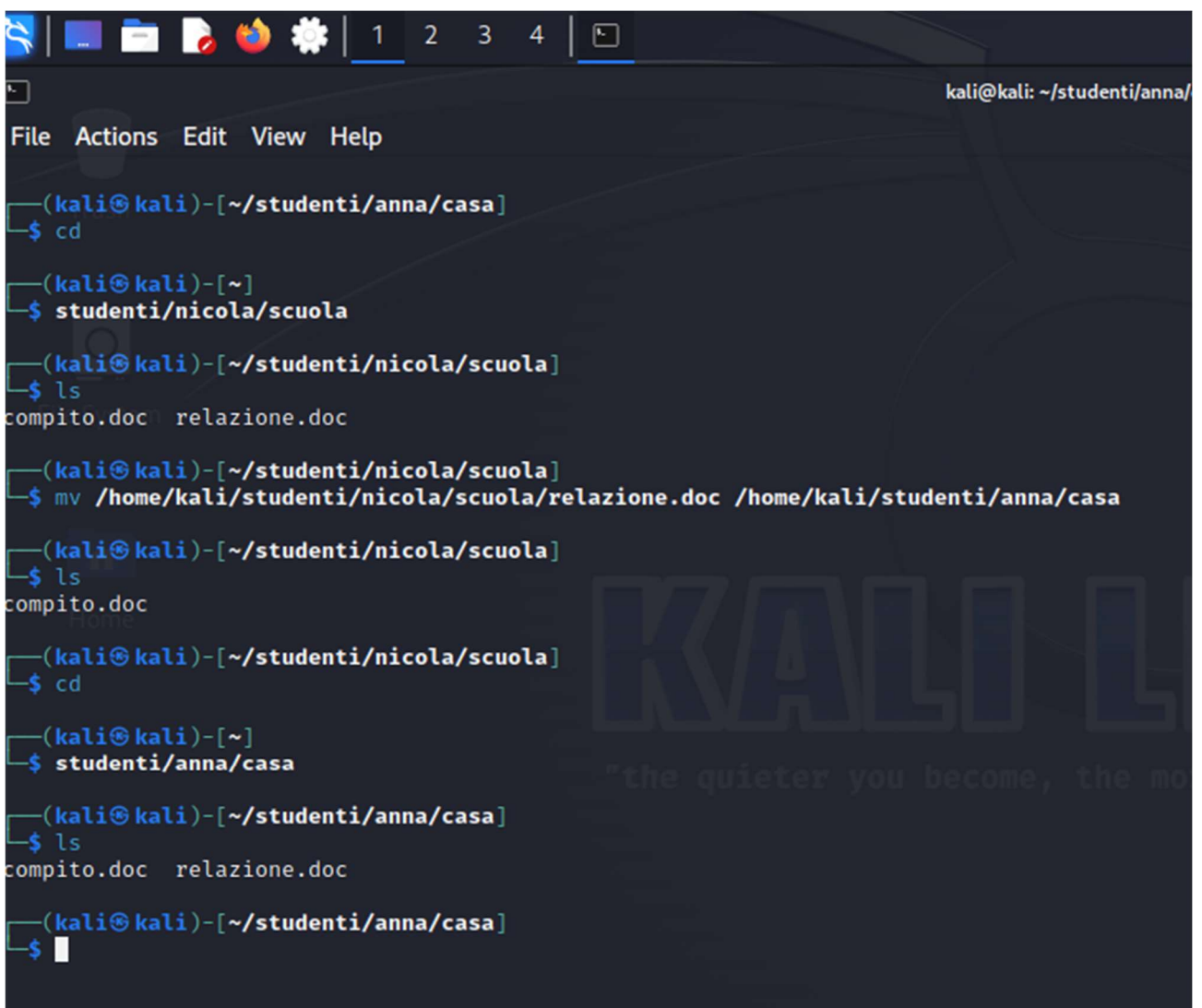
(kali㉿kali)-[~/studenti/nicola/scuola]
$ cd

(kali㉿kali)-[~]
$ studenti/anna/casa

(kali㉿kali)-[~/studenti/anna/casa]
$ ls
compito.doc

(kali㉿kali)-[~/studenti/anna/casa]
$
```

- b) Sposta il file relazione.doc nella directory corrente casa.



```
kali@kali: ~/studenti/anna/

File Actions Edit View Help

(kali㉿kali)-[~/studenti/anna/casa]
$ cd

(kali㉿kali)-[~]
$ studenti/nicola/scuola

(kali㉿kali)-[~/studenti/nicola/scuola]
$ ls
compito.doc relazione.doc

(kali㉿kali)-[~/studenti/nicola/scuola]
$ mv /home/kali/studenti/nicola/scuola/relazione.doc /home/kali/studenti/anna/casa

(kali㉿kali)-[~/studenti/nicola/scuola]
$ ls
compito.doc

(kali㉿kali)-[~/studenti/nicola/scuola]
$ cd

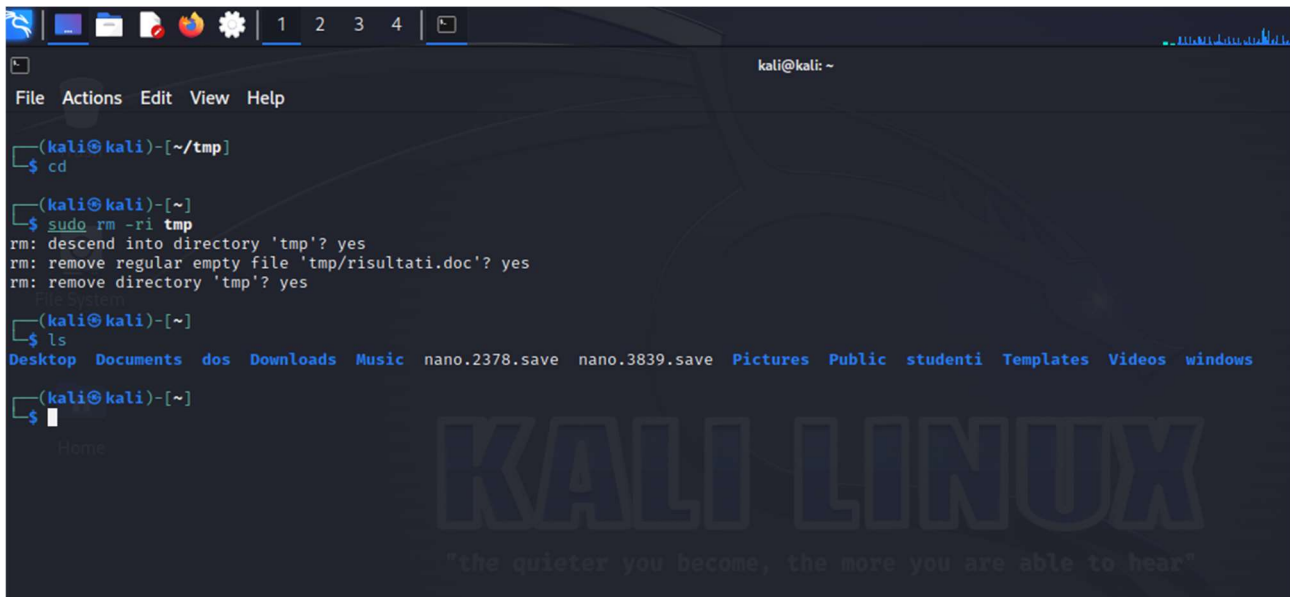
(kali㉿kali)-[~]
$ studenti/anna/casa

(kali㉿kali)-[~/studenti/anna/casa]
$ ls
compito.doc relazione.doc

(kali㉿kali)-[~/studenti/anna/casa]
$
```



c) Cancella la cartella /tmp.



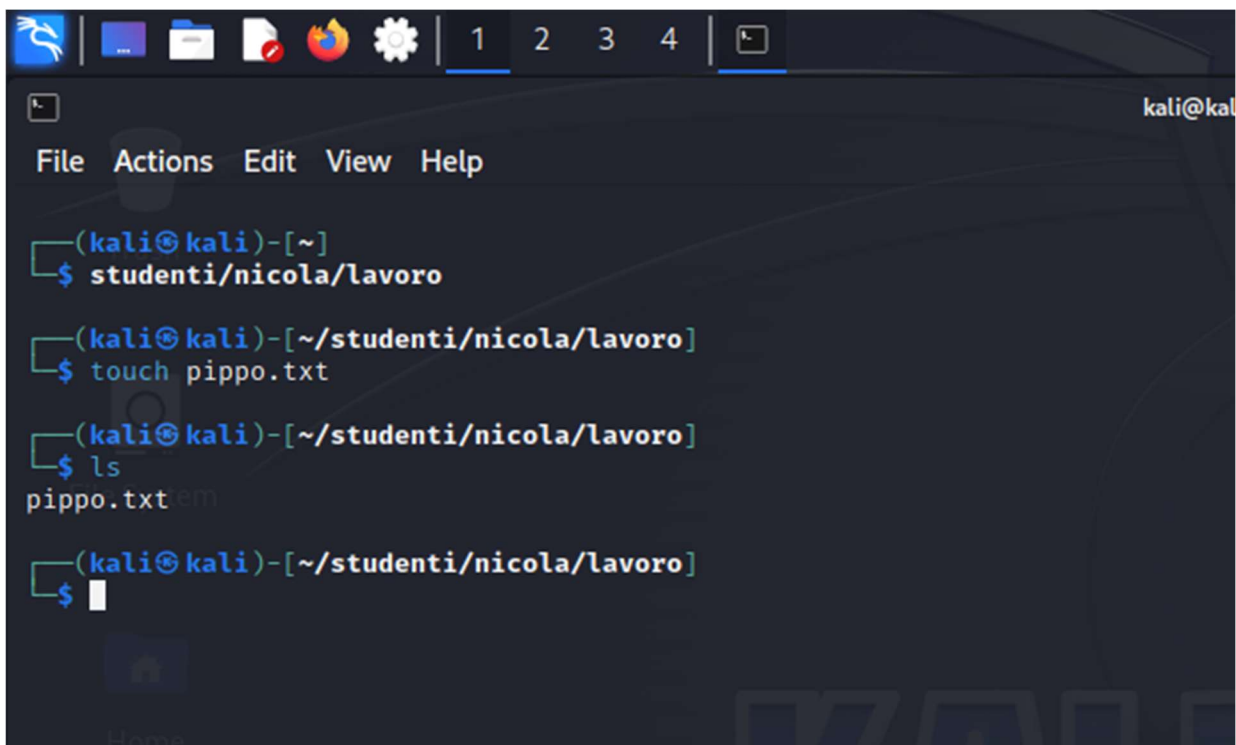
A terminal window on Kali Linux. The user is in the directory ~/tmp. They run 'cd' to move to the current directory. Then they run 'sudo rm -ri tmp'. The terminal shows three confirmation prompts: 'rm: descend into directory 'tmp'? yes', 'rm: remove regular empty file 'tmp/risultati.doc'? yes', and 'rm: remove directory 'tmp'? yes'. After running 'ls', the directory listing shows Desktop, Documents, dos, Downloads, Music, nano.2378.save, nano.3839.save, Pictures, Public, studenti, Templates, Videos, and windows. The background features the Kali Linux logo and the quote "the quieter you become, the more you are able to hear".

```
(kali@kali)-[~/tmp]
$ cd

(kali@kali)-[~/tmp]
$ sudo rm -ri tmp
rm: descend into directory 'tmp'? yes
rm: remove regular empty file 'tmp/risultati.doc'? yes
rm: remove directory 'tmp'? yes

(kali@kali)-[~/tmp]
$ ls
Desktop  Documents  dos  Downloads  Music  nano.2378.save  nano.3839.save  Pictures  Public  studenti  Templates  Videos  windows
```

d) Creare il file pippo.txt nella cartella lavoro.



A terminal window on Kali Linux. The user is in the directory ~/studenti/nicola/lavoro. They run 'touch pippo.txt'. Then they run 'ls', and the output shows 'pippo.txt'. The background features the Kali Linux logo and the quote "the quieter you become, the more you are able to hear".

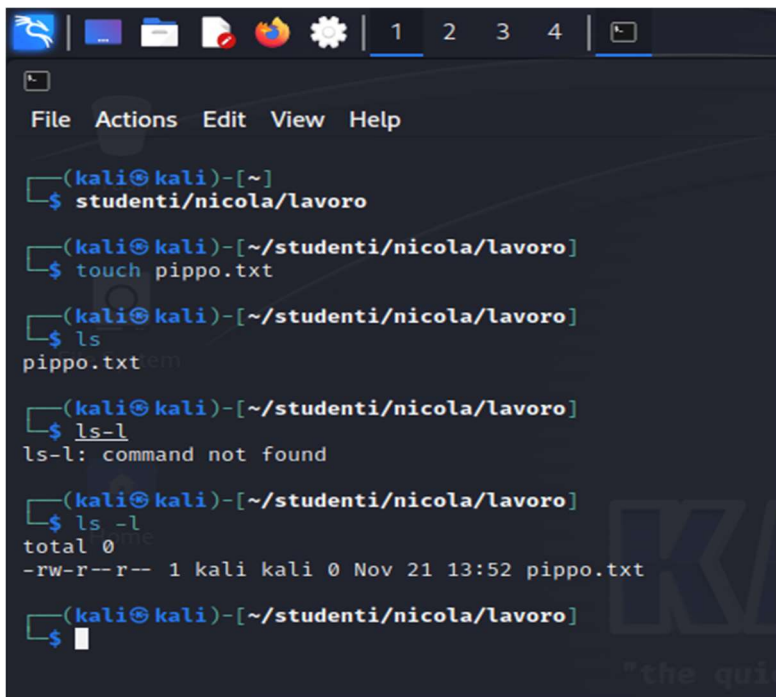
```
(kali@kali)-[~/studenti/nicola/lavoro]
$ touch pippo.txt

(kali@kali)-[~/studenti/nicola/lavoro]
$ ls
pippo.txt

(kali@kali)-[~/studenti/nicola/lavoro]
$
```

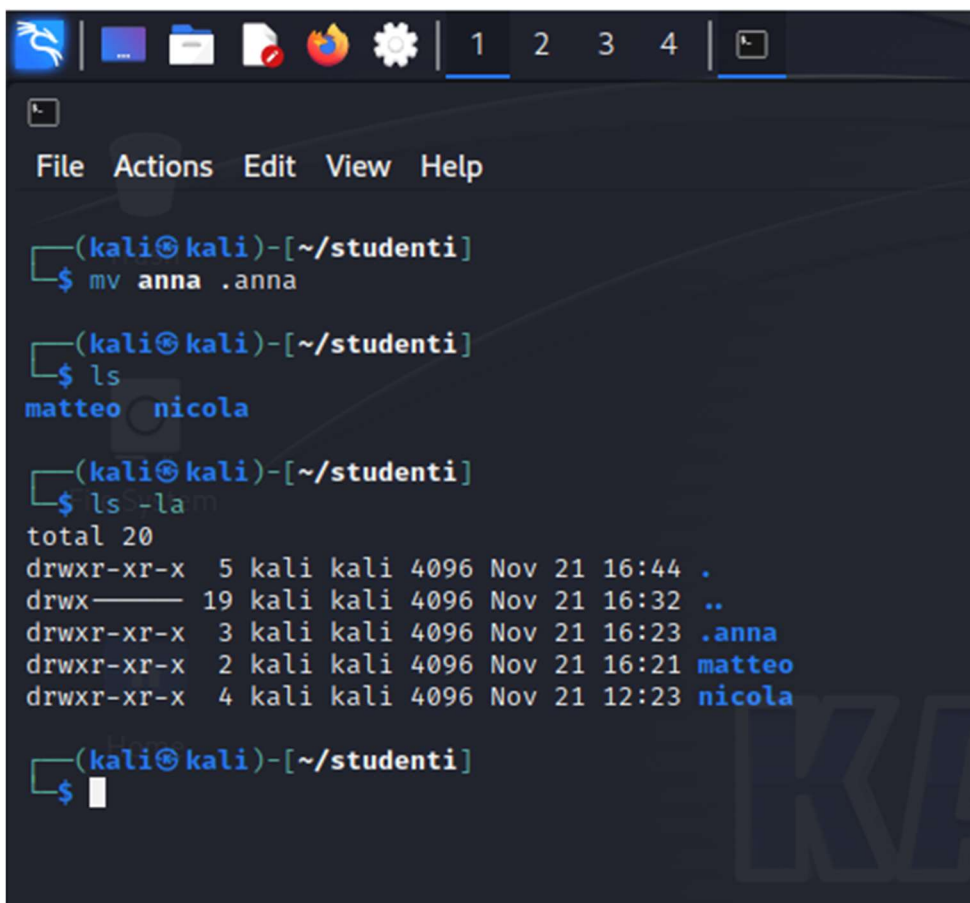


- e) Cambiare gli attributi del file pippo.txt e renderlo scrivibile e leggibile solo per il proprietario, mentre per tutti gli altri solo leggibile.



```
(kali㉿kali)-[~]
$ cd studenti/nicola/lavoro
$ touch pippo.txt
$ ls
pippo.txt
$ ls -l
ls-l: command not found
$ ls -l
total 0
-rw-r--r-- 1 kali kali 0 Nov 21 13:52 pippo.txt
$
```

- f) Nascondere il contenuto della cartella anna.



```
(kali㉿kali)-[~/studenti]
$ mv anna .anna
$ ls
matteo nicola
$ ls -la
total 20
drwxr-xr-x  5 kali kali 4096 Nov 21 16:44 .
drwx----- 19 kali kali 4096 Nov 21 16:32 ..
drwxr-xr-x  3 kali kali 4096 Nov 21 16:23 .anna
drwxr-xr-x  2 kali kali 4096 Nov 21 16:21 matteo
drwxr-xr-x  4 kali kali 4096 Nov 21 12:23 nicola
$
```

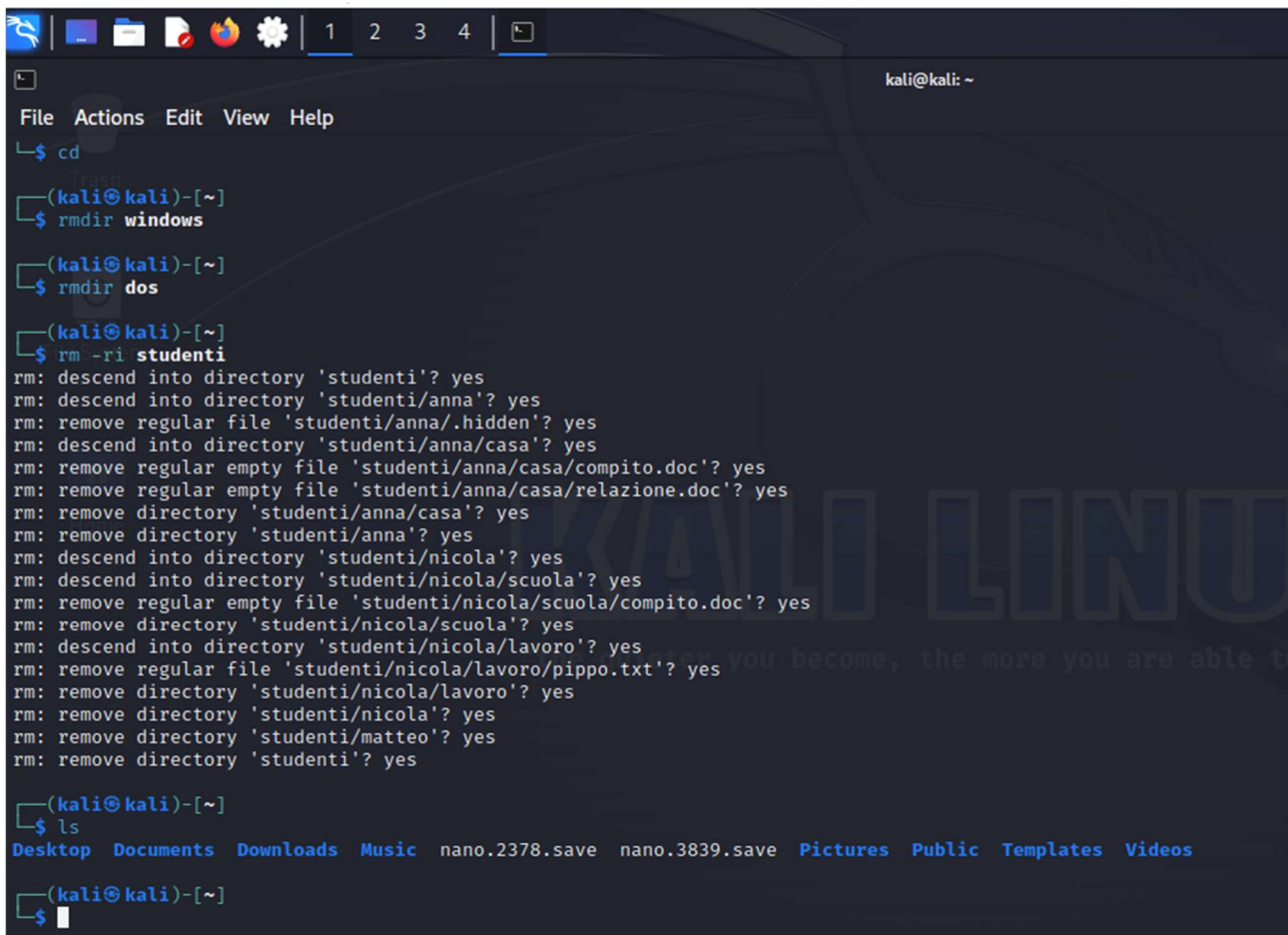
- g) Spostarsi nella cartella lavoro e visualizzare il contenuto del file pippo.txt

```
(kali㉿kali)-[~]  
$ studenti/nicola/lavoro  
  
(kali㉿kali)-[~/studenti/nicola/lavoro]  
$ ls  
pippo.txt  
  
(kali㉿kali)-[~/studenti/nicola/lavoro]  
$ cat pippo.txt  
  
(kali㉿kali)-[~/studenti/nicola/lavoro]  
$ nano pippo.txt  
  
(kali㉿kali)-[~/studenti/nicola/lavoro]  
$ cat pippo.txt  
ciao  
  
(kali㉿kali)-[~/studenti/nicola/lavoro]  
$
```

- h) Rimuovere la cartella amici.

```
(kali㉿kali)-[~]  
$ studenti/matteo  
  
(kali㉿kali)-[~/studenti/matteo]  
$ rmdir amici  
  
(kali㉿kali)-[~/studenti/matteo]  
$ ls  
  
(kali㉿kali)-[~/studenti/matteo]  
$
```

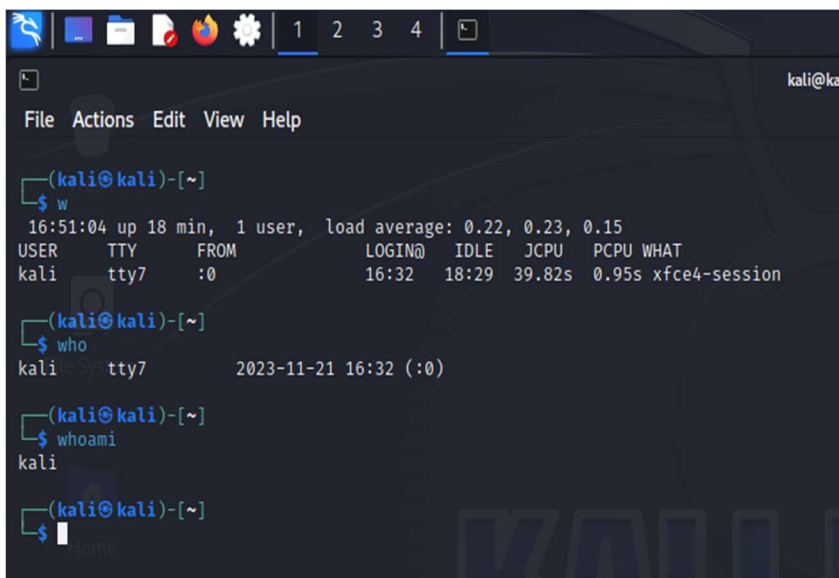
- i) Rimuovere tutte le cartelle precedentemente create.



```
kali@kali: ~  
File Actions Edit View Help  
$ cd  
(kali@kali)-[~]  
$ rmdir windows  
(kali@kali)-[~]  
$ rmdir dos  
(kali@kali)-[~]  
$ rm -ri studenti  
rm: descend into directory 'studenti'? yes  
rm: descend into directory 'studenti/anna'? yes  
rm: remove regular file 'studenti/anna/.hidden'? yes  
rm: descend into directory 'studenti/anna/casa'? yes  
rm: remove regular empty file 'studenti/anna/casa/compito.doc'? yes  
rm: remove regular empty file 'studenti/anna/casa/relazione.doc'? yes  
rm: remove directory 'studenti/anna/casa'? yes  
rm: remove directory 'studenti/anna'? yes  
rm: descend into directory 'studenti/nicola'? yes  
rm: descend into directory 'studenti/nicola/scuola'? yes  
rm: remove regular empty file 'studenti/nicola/scuola/compito.doc'? yes  
rm: remove directory 'studenti/nicola/scuola'? yes  
rm: descend into directory 'studenti/nicola/lavoro'? yes  
rm: remove regular file 'studenti/nicola/lavoro/pippo.txt'? yes  
rm: remove directory 'studenti/nicola/lavoro'? yes  
rm: remove directory 'studenti/nicola'? yes  
rm: remove directory 'studenti/matteo'? yes  
rm: remove directory 'studenti'? yes  
(kali@kali)-[~]  
$ ls  
Desktop Documents Downloads Music nano.2378.save nano.3839.save Pictures Public Templates Videos  
(kali@kali)-[~]  
$
```

Comandi:

w, who, who i am



```
kali@kali  
File Actions Edit View Help  
(kali@kali)-[~]  
$ w  
16:51:04 up 18 min, 1 user, load average: 0.22, 0.23, 0.15  
USER TTY FROM LOGIN@ IDLE JCPU PCPU WHAT  
kali tty7 :0 16:32 18:29 39.82s 0.95s xfce4-session  
(kali@kali)-[~]  
$ who  
kali pts/tty7 2023-11-21 16:32 (:0)  
(kali@kali)-[~]  
$ whoami  
kali  
(kali@kali)-[~]  
$
```

2:

```
PS> kill -9 70935
```

<u>ID</u>	<u>Name</u>	<u>PSJobTypeName</u>	<u>State</u>	<u>HasMoreData</u>	<u>Location</u>	<u>Command</u>
1	Job1	BackgroundJob	Completed	False	localhost	Microsoft.PowerShell.Man...

```
(kali@kali)-[/home/kali]
PS> ps
  PID TTY          TIME CMD
 70935 pts/2    00:00:07 pws
 72518 pts/2    00:00:00 ps

(kali@kali)-[/home/kali]
PS> kill

Usage:
kill [options] <pid> [ ... ]

Options:
<pid> [ ... ]      send signal to every <pid> listed
-<signal>, -s, --signal <signal>
                    specify the <signal> to be sent
-q, --queue <value> integer value to be sent with the signal
-l, --list=<signal>] list all signal names, or convert one to a name
-L, --table         list all signal names in a nice table

-h, --help         display this help and exit
-V, --version       output version information and exit

For more details see kill(1).

(kali@kali)-[/home/kali]
PS>
```

3:

[illegible]

4.

```
(kali㉿kali)-[~]
$ ps
  PID TTY          TIME CMD
 32213 pts/1        00:00:08 zsh
 61992 pts/1        00:00:00 ps

(kali㉿kali)-[~]
$
```

4:

```
(kali㉿kali)-[~]
$ firefox&
[1] 63266

(kali㉿kali)-[~]
$ ps
  PID TTY          TIME CMD
 32213 pts/1        00:00:08 zsh
 63266 pts/1        00:00:06 firefox-esr
 63350 pts/1        00:00:00 Socket Process
 63405 pts/1        00:00:00 Privileged Cont
 63451 pts/1        00:00:01 WebExtensions
 63520 pts/1        00:00:00 Web Content
 63522 pts/1        00:00:00 Web Content
 63531 pts/1        00:00:00 Web Content
 63608 pts/1        00:00:00 ps

(kali㉿kali)-[~]
$ jobs
[1] + running    firefox

(kali㉿kali)-[~]
$
```

6:

```
(kali㉿kali)-[~]
$ firefox&
[1] 44696

(kali㉿kali)-[~]
$
[1] + done        firefox
```

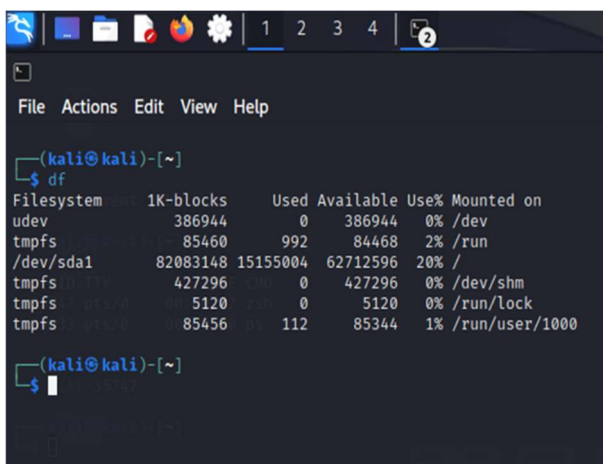
7:

```
(kali㉿kali)-[~]
└─$ firefox bg
Exiting due to channel error.
Exiting due to channel error.
Exiting due to channel error.
Exiting due to channel error.
zsh: terminated firefox bg
(kali㉿kali)-[~]
└─$ pkill firefox
```

8:

```
(kali㉿kali)-[~]
└─$ firefox &
[1] 46472
Exiting due to channel error.
Exiting due to channel error.
(kali㉿kali)-[~]
└─$
[1] + done firefox
(kali㉿kali)-[~]
└─$
(kali㉿kali)-[~]
└─$ pkill firefox
```

9:



```
(kali㉿kali)-[~]
└─$ df
Filesystem      1K-blocks    Used Available Use% Mounted on
udev            386944      0   386944    0% /dev
tmpfs           85460      992   84468    2% /run
/dev/sda1      82083148 15155004 62712596 20% /
tmpfs           427296      0   427296    0% /dev/shm
tmpfs           5120        0     5120    0% /run/lock
tmpfs           85456      112   85344    1% /run/user/1000
```



```
kali@kali: ~  
File Actions Edit View Help  
top - 20:22:21 up 1:38, 1 user, load average: 0.34, 0.38, 0.36  
Tasks: 161 total, 1 running, 160 sleeping, 0 stopped, 0 zombie  
%Cpu(s): 2.0 us, 1.8 sy, 0.0 ni, 96.0 id, 0.0 wa, 0.0 hi, 0.2 si, 0.0 st  
MiB Mem : 834.6 total, 328.1 free, 360.0 used, 269.8 buff/cache  
MiB Swap: 1024.0 total, 653.3 free, 370.7 used. 474.5 avail Mem
```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
716	root	20	0	392208	65544	11496	S	1.7	7.7	1:33.87	Xorg
1023	kali	20	0	1019604	18388	11240	S	1.0	2.2	0:32.85	xfwm4
1092	kali	20	0	277584	19944	11008	S	0.7	2.3	0:36.62	panel-13-cpugra
32210	kali	20	0	447712	26568	21732	S	0.7	3.1	0:05.04	exe
50468	kali	20	0	11708	5248	3200	R	0.7	0.6	0:00.28	top
961	kali	20	0	217452	2432	2048	S	0.3	0.3	0:06.93	VBoxClient
969	kali	20	0	217968	2304	2048	S	0.3	0.3	0:13.98	VBoxClient
1066	root	20	0	307724	5756	5248	S	0.3	0.7	0:00.92	upowerd
1094	kali	20	0	423676	15176	11388	S	0.3	1.8	0:25.26	panel-15-genmon
23730	root	20	0	0	0	0	I	0.3	0.0	0:02.14	kworker/1:0-events
1	root	20	0	20848	7756	5708	S	0.0	0.9	0:02.86	systemd
2	root	20	0	0	0	0	S	0.0	0.0	0:00.01	kthreadd
3	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_gp
4	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_par_gp
5	root	20	0	0	0	0	I	0.0	0.0	0:00.00	slub_flushwq
6	root	20	0	0	0	0	I	0.0	0.0	0:00.00	netns
8	root	20	0	0	0	0	I	0.0	0.0	0:00.00	kworker/0:0H-events_highpri
10	root	20	0	0	0	0	I	0.0	0.0	0:00.00	mm_percpu_wq
11	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_tasks_kthread
12	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_tasks_rude_kthread
13	root	20	0	0	0	0	I	0.0	0.0	0:00.00	rcu_tasks_trace_kthread
14	root	20	0	0	0	0	S	0.0	0.0	0:01.19	ksoftirqd/0
15	root	20	0	0	0	0	I	0.0	0.0	0:03.62	rcu_preempt
16	root	rt	0	0	0	0	S	0.0	0.0	0:00.05	migration/0
17	root	-51	0	0	0	0	S	0.0	0.0	0:00.00	idle_inject/0
19	root	20	0	0	0	0	S	0.0	0.0	0:00.00	cpuhp/0
20	root	20	0	0	0	0	S	0.0	0.0	0:00.00	cpuhp/1
21	root	-51	0	0	0	0	S	0.0	0.0	0:00.00	idle_inject/1