

## Esercizio 1

Configurazione cartelle e sottocartelle

```
(kali㉿kali)-[~]
$ tree
.
├── Desktop
├── Documents
│   ├── http_packet
│   ├── https.txt
│   ├── http.txt
│   └── localhost request packet analysis.txt
├── dos
├── Downloads
├── Music
├── Pictures
├── Public
├── risultati.doc
├── studenti
│   ├── anna
│   │   └── casa
│   ├── matteo
│   │   └── amici
│   └── nicola
│       ├── lavoro
│       │   └── pippo.txt
│       └── scuola
│           ├── compito.doc
│           └── relazione.doc
├── Templates
├── tmp
│   └── risultati.doc
├── Videos
└── windows

20 directories, 9 files
```

```
(kali㉿kali)-[~]
$ mkdir dos

(kali㉿kali)-[~]
$ mkdir studenti

(kali㉿kali)-[~]
$ mkdir windows

(kali㉿kali)-[~]
$ mkdir tmp
```

```
(kali㉿kali)-[~]  
$ cd studenti  
  
(kali㉿kali)-[~/studenti]  
$ mkdir nicola  
  
(kali㉿kali)-[~/studenti]  
$ mkdir anna  
  
(kali㉿kali)-[~/studenti]  
$ mkdir matteo  
  
(kali㉿kali)-[~/studenti]  
$ ls -l  
total 12  
drwxr-xr-x 2 kali kali 4096 Jun 20 15:33 anna  
drwxr-xr-x 2 kali kali 4096 Jun 20 15:33 matteo  
drwxr-xr-x 2 kali kali 4096 Jun 20 15:33 nicola
```

```
(kali㉿kali)-[~/studenti]  
$ cd nicola  
  
(kali㉿kali)-[~/studenti/nicola]  
$ mkdir scuola  
  
(kali㉿kali)-[~/studenti/nicola]  
$ mkdir lavoro  
  
(kali㉿kali)-[~/studenti/nicola]  
$ ls -l  
total 8  
drwxr-xr-x 2 kali kali 4096 Jun 20 15:35 lavoro  
drwxr-xr-x 2 kali kali 4096 Jun 20 15:35 scuola
```

```
(kali㉿kali)-[~/studenti]  
$ ls -l  
total 12  
drwxr-xr-x 2 kali kali 4096 Jun 20 15:33 anna  
drwxr-xr-x 2 kali kali 4096 Jun 20 15:33 matteo  
drwxr-xr-x 4 kali kali 4096 Jun 20 15:35 nicola  
  
(kali㉿kali)-[~/studenti]  
$ cd anna  
  
(kali㉿kali)-[~/studenti/anna]  
$ mkdir casa  
  
(kali㉿kali)-[~/studenti/anna]  
$ ls -l  
total 4  
drwxr-xr-x 2 kali kali 4096 Jun 20 15:39 casa
```

```
(kali㉿kali)-[~/studenti]
└─$ ls -l
total 12
drwxr-xr-x 3 kali kali 4096 Jun 20 15:39 anna
drwxr-xr-x 2 kali kali 4096 Jun 20 15:33 matteo
drwxr-xr-x 4 kali kali 4096 Jun 20 15:35 nicola

(kali㉿kali)-[~/studenti]
└─$ cd matteo

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

(kali㉿kali)-[~/studenti/matteo]
└─$ ls -l
total 4
drwxr-xr-x 2 kali kali 4096 Jun 20 15:40 amici
```

```
(kali㉿kali)-[~/studenti/nicola/scuola]
└─$ touch relazione.doc

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

(kali㉿kali)-[~/studenti/nicola/scuola]
└─$ ls -l
total 0
-rw-r--r-- 1 kali kali 0 Jun 20 15:44 compito.doc
-rw-r--r-- 1 kali kali 0 Jun 20 15:44 relazione.doc
```

```
(kali㉿kali)-[~/tmp]
└─$ touch risultati.doc

(kali㉿kali)-[~/tmp]
└─$ ls -l
total 0
-rw-r--r-- 1 kali kali 0 Jun 20 15:46 risultati.doc
```

## Svolgimento esercizio

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

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

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

(kali㉿kali)-[~/studenti]
$ cd anna

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

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

a)

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

(kali㉿kali)-[~/studenti/anna/casa]
$ ls -l
total 0
-rw-r--r-- 1 kali kali 0 Jun 20 15:55 compito.doc
```

b)

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

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

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

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

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

c)

```
(kali㉿kali)-[~/studenti/nicola/lavoro]
$ rm -r /home/kali/tmp

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

(kali㉿kali)-[~]
$ ls -l
total 44
drwxr-xr-x 2 kali kali 4096 May 25 16:53 Desktop
drwxr-xr-x 2 kali kali 4096 Jun 18 13:45 Documents
drwxr-xr-x 2 kali kali 4096 Jun 20 15:26 dos
drwxr-xr-x 2 kali kali 4096 May 25 16:53 Downloads
drwxr-xr-x 2 kali kali 4096 May 25 16:53 Music
drwxr-xr-x 2 kali kali 4096 May 25 16:53 Pictures
drwxr-xr-x 2 kali kali 4096 May 25 16:53 Public
drwxr-xr-x 5 kali kali 4096 Jun 20 15:33 studenti
drwxr-xr-x 2 kali kali 4096 May 25 16:53 Templates
drwxr-xr-x 2 kali kali 4096 May 25 16:53 Videos
drwxr-xr-x 2 kali kali 4096 Jun 20 15:27 windows
```

d) e)

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

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

(kali㉿kali)-[~/studenti/nicola/lavoro]
$ ls -l
total 0
-rw-r--r-- 1 kali kali 0 Jun 20 16:03 pippo.txt
```

f)

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

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

(kali㉿kali)-[~/studenti/anna]
$ ls -l
total 0

(kali㉿kali)-[~/studenti/anna]
$ ls -la
total 12
drwxr-xr-x 3 kali kali 4096 Jun 20 16:08 .
drwxr-xr-x 5 kali kali 4096 Jun 20 15:33 ..
drwxr-xr-x 2 kali kali 4096 Jun 20 15:58 .casa
```



g)

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

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



h)

```
(kali㉿kali)-[~/studenti/nicola/lavoro]
$ rmdir /home/kali/studenti/matteo/amici

(kali㉿kali)-[~/studenti/nicola/lavoro]
$ cd /home/kali/studenti/matteo

(kali㉿kali)-[~/studenti/matteo]
$ ls -la
total 8
drwxr-xr-x 2 kali kali 4096 Jun 20 16:13 .
drwxr-xr-x 5 kali kali 4096 Jun 20 15:33 ..
```

i)

```
(kali㉿kali)-[~]
$ ls -l
total 44
drwxr-xr-x 2 kali kali 4096 May 25 16:53 Desktop
drwxr-xr-x 2 kali kali 4096 Jun 18 13:45 Documents
drwxr-xr-x 2 kali kali 4096 Jun 20 15:26 dos
drwxr-xr-x 2 kali kali 4096 May 25 16:53 Downloads
drwxr-xr-x 2 kali kali 4096 May 25 16:53 Music
drwxr-xr-x 2 kali kali 4096 May 25 16:53 Pictures
drwxr-xr-x 2 kali kali 4096 May 25 16:53 Public
drwxr-xr-x 5 kali kali 4096 Jun 20 15:33 studenti
drwxr-xr-x 2 kali kali 4096 May 25 16:53 Templates
drwxr-xr-x 2 kali kali 4096 May 25 16:53 Videos
drwxr-xr-x 2 kali kali 4096 Jun 20 15:27 windows

(kali㉿kali)-[~]
$ rm -vrf dos studenti windows
removed directory 'dos'
removed 'studenti/anna/.casa/relazione.doc'
removed 'studenti/anna/.casa/compito.doc'
removed directory 'studenti/anna/.casa'
removed directory 'studenti/anna'
removed directory 'studenti/matteo'
removed 'studenti/nicola/lavoro/pippo.txt'
removed directory 'studenti/nicola/lavoro'
removed 'studenti/nicola/scuola/compito.doc'
removed directory 'studenti/nicola/scuola'
removed directory 'studenti/nicola'
removed directory 'studenti'
removed directory 'windows'

(kali㉿kali)-[~]
$ ls -l
total 32
drwxr-xr-x 2 kali kali 4096 May 25 16:53 Desktop
drwxr-xr-x 2 kali kali 4096 Jun 18 13:45 Documents
drwxr-xr-x 2 kali kali 4096 May 25 16:53 Downloads
drwxr-xr-x 2 kali kali 4096 May 25 16:53 Music
drwxr-xr-x 2 kali kali 4096 May 25 16:53 Pictures
drwxr-xr-x 2 kali kali 4096 May 25 16:53 Public
drwxr-xr-x 2 kali kali 4096 May 25 16:53 Templates
drwxr-xr-x 2 kali kali 4096 May 25 16:53 Videos
```

```

(kali㉿kali)-[~]
$ w
14:54:41 up 1:11, 1 user, load average: 0.07, 0.07, 0.06
USER      TTY      FROM          LOGIN@      IDLE   JCPU   PCPU   WHAT
kali      tty7      :0            Tue15       23:35m 8.77s  0.41s xfce4-session

(kali㉿kali)-[~]
$ who
kali      tty7      2023-06-20 15:20 (:0)

(kali㉿kali)-[~]
$ whoami
kali

```

2.

```

(kali㉿kali)-[~]
$ jobs

```

```

kali@kali: /home
File Actions Edit View Help
PS(1) User Commands PS(1)
NAME
    ps - report a snapshot of the current processes.
SYNOPSIS
    ps [options]
DESCRIPTION
    ps displays information about a selection of the active processes. If you want a repetitive update of the
    selection and the displayed information, use top instead.
    This version of ps accepts several kinds of options:
    1  UNIX options, which may be grouped and must be preceded by a dash.
    2  BSD options, which may be grouped and must not be used with a dash.
    3  GNU long options, which are preceded by two dashes.
    Options of different types may be freely mixed, but conflicts can appear. There are some synonymous options,
    which are functionally identical, due to the many standards and ps implementations that this ps is compatible
    with.
    Note that ps -aux is distinct from ps aux. The POSIX and UNIX standards require that ps -aux print all processes
    owned by a user named x, as well as printing all processes that would be selected by the -a option. If the user
    named x does not exist, this ps may interpret the command as ps aux instead and print a warning. This behavior
    is intended to aid in transitioning old scripts and habits. It is fragile, subject to change, and thus should
    not be relied upon.
    By default, ps selects all processes with the same effective user ID (euid=EUID) as the current user and
    associated with the same terminal as the invoker. It displays the process ID (pid=PID), the terminal associated
    with the process (tname=TTY), the cumulated CPU time in [DD-]hh:mm:ss format (time=TIME), and the executable name
    (ucmd=CMD). Output is unsorted by default.
    The use of BSD-style options will add process state (stat=STAT) to the default display and show the command args
    (args=COMMAND) instead of the executable name. You can override this with the PS_FORMAT environment variable.
    The use of BSD-style options will also change the process selection to include processes on other terminals
    (TTYs) that are owned by you; alternately, this may be described as setting the selection to be the set of all
    processes filtered to exclude processes owned by other users or not on a terminal. These effects are not
    considered when options are described as being "identical" below, so -M will be considered identical to Z and so
    on.
    Except as described below, process selection options are additive. The default selection is discarded, and then
    the selected processes are added to the set of processes to be displayed. A process will thus be shown if it
    meets any of the given selection criteria.
EXAMPLES
    Manual page ps(1) line 1 (press h for help or q to quit)

```



```
kali@kali: ~/studenti/nicola/lavoro
File Actions Edit View Help
KILL(1) User Commands KILL(1)

NAME
    kill - send a signal to a process

SYNOPSIS
    kill [options] <pid> [ ... ]

DESCRIPTION
    The default signal for kill is TERM. Use -l or -L to list available signals. Particularly useful signals include HUP, INT, KILL, STOP, CONT, and 0. Alternate signals may be specified in three ways: -9, -SIGKILL or -KILL. Negative PID values may be used to choose whole process groups; see the PGID column in ps command output. A PID of -1 is special; it indicates all processes except the kill process itself and init.

OPTIONS
    <pid> [ ... ]
        Send signal to every <pid> listed.

    -<signal>
    -s <signal>
    --signal <signal>
        Specify the signal to be sent. The signal can be specified by using name or number. The behavior of signals is explained in signal(7) manual page.

    -q, --queue value
        Use sigqueue(3) rather than kill(2) and the value argument is used to specify an integer to be sent with the signal. If the receiving process has installed a handler for this signal using the SA_SIGINFO flag to sigaction(2), then it can obtain this data via the si_value field of the siginfo_t structure.

    -l, --list [signal]
        List signal names. This option has optional argument, which will convert signal number to signal name, or other way round.

    -L, --table
        List signal names in a nice table.

NOTES
    Your shell (command line interpreter) may have a built-in kill command. You may need to run the command described here as /bin/kill to solve the conflict.

EXAMPLES
    kill -9 -1
        Kill all processes you can kill.

    kill -l 11
        Manual page kill(1) line 1 (press h for help or q to quit)
```

```
kali@kali: /home
File Actions Edit View Help
KILL(1) User Commands KILL(1)

NAME
    kill - send a signal to a process

SYNOPSIS
    kill [options] <pid> [ ... ]

DESCRIPTION
    The default signal for kill is TERM. Use -l or -L to list available signals. Particularly useful signals include HUP, INT, KILL, STOP, CONT, and 0. Alternate signals may be specified in three ways: -9, -SIGKILL or -KILL. Negative PID values may be used to choose whole process groups; see the PGID column in ps command output. A PID of -1 is special; it indicates all processes except the kill process itself and init.

OPTIONS
    <pid> [ ... ]
        Send signal to every <pid> listed.

    -<signal>
    -s <signal>
    --signal <signal>
        Specify the signal to be sent. The signal can be specified by using name or number. The behavior of signals is explained in signal(7) manual page.

    -q, --queue value
        Use sigqueue(3) rather than kill(2) and the value argument is used to specify an integer to be sent with the signal. If the receiving process has installed a handler for this signal using the SA_SIGINFO flag to sigaction(2), then it can obtain this data via the si_value field of the siginfo_t structure.

    -l, --list [signal]
        List signal names. This option has optional argument, which will convert signal number to signal name, or other way round.

    -L, --table
        List signal names in a nice table.

NOTES
    Your shell (command line interpreter) may have a built-in kill command. You may need to run the command described here as /bin/kill to solve the conflict.

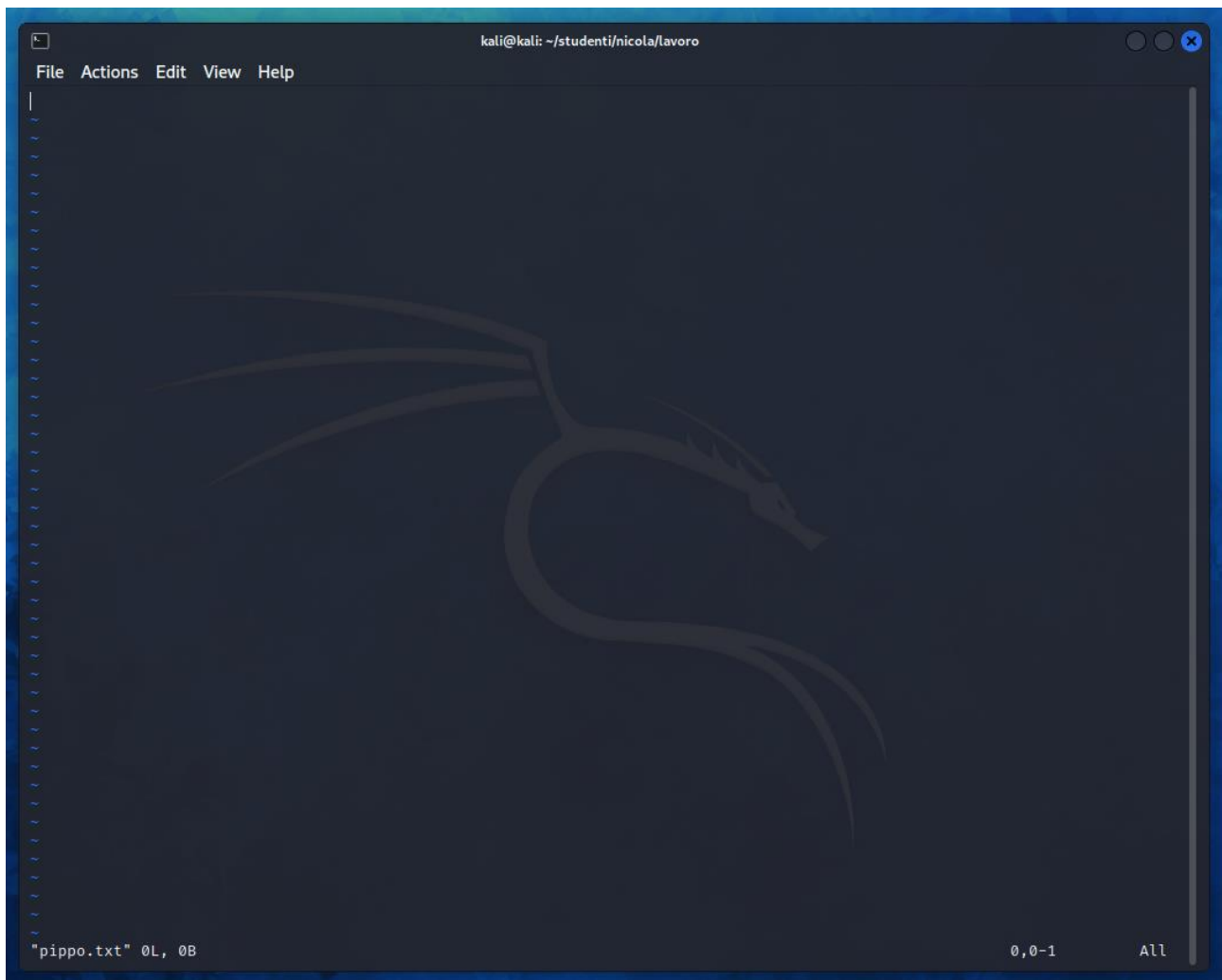
EXAMPLES
    kill -9 -1
        Kill all processes you can kill.

    kill -l 11
        Translate number 11 into a signal name.

    Manual page kill(1) line 1 (press h for help or q to quit)
```

3.

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



4.

```
(kali㉿kali)-[~]
$ ps -e
```

PID	TTY	TIME	CMD
1	?	00:00:00	systemd
2	?	00:00:00	kthreadd
3	?	00:00:00	rcu_gp
4	?	00:00:00	rcu_par_gp
5	?	00:00:00	slub_flushwq
6	?	00:00:00	netns
8	?	00:00:00	kworker/0:0H-events_highpri
10	?	00:00:00	mm_percpu_wq
11	?	00:00:00	rcu_tasks_kthread
12	?	00:00:00	rcu_tasks_rude_kthread
13	?	00:00:00	rcu_tasks_trace_kthread
14	?	00:00:00	ksoftirqd/0
15	?	00:00:00	rcu_preempt
16	?	00:00:00	migration/0
18	?	00:00:00	cpuhp/0

5.

```

4850 ?      00:00:00 kworker/0:2-ata_sff
4885 pts/0   00:00:00 vi
4890 ?      00:00:01 qterminal
4893 pts/1   00:00:00 zsh
4948 ?      00:00:00 kworker/0:1-ata_sff
5030 pts/1   00:00:00 ps

(kali@kali)-[~]
$ kill 4885

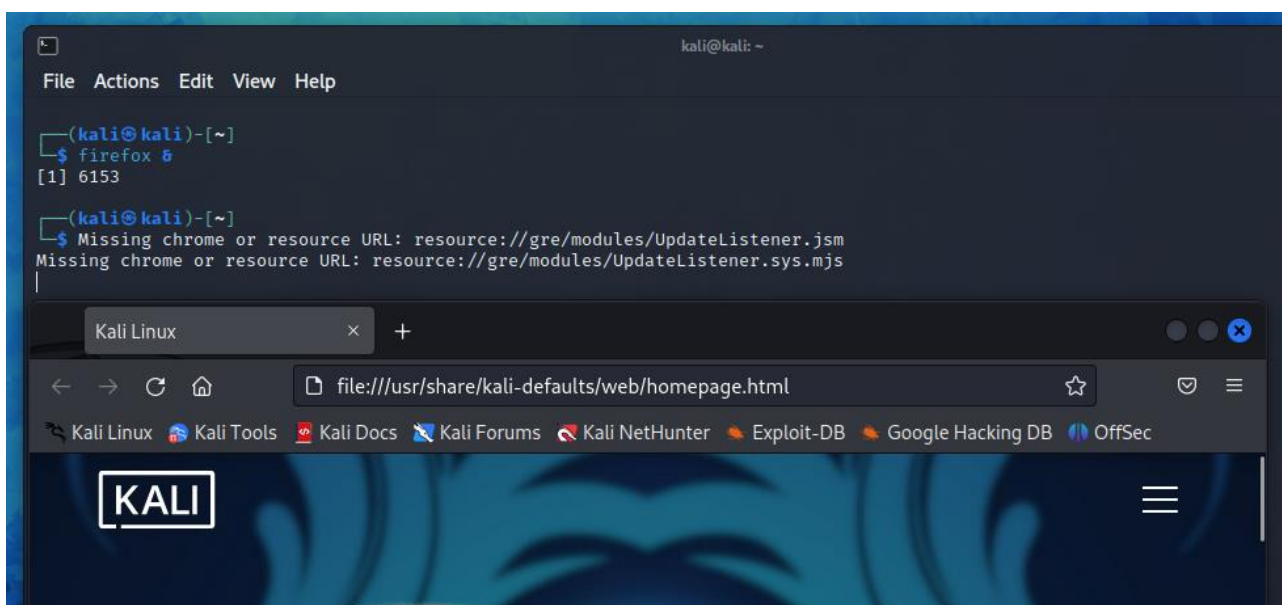
```

```

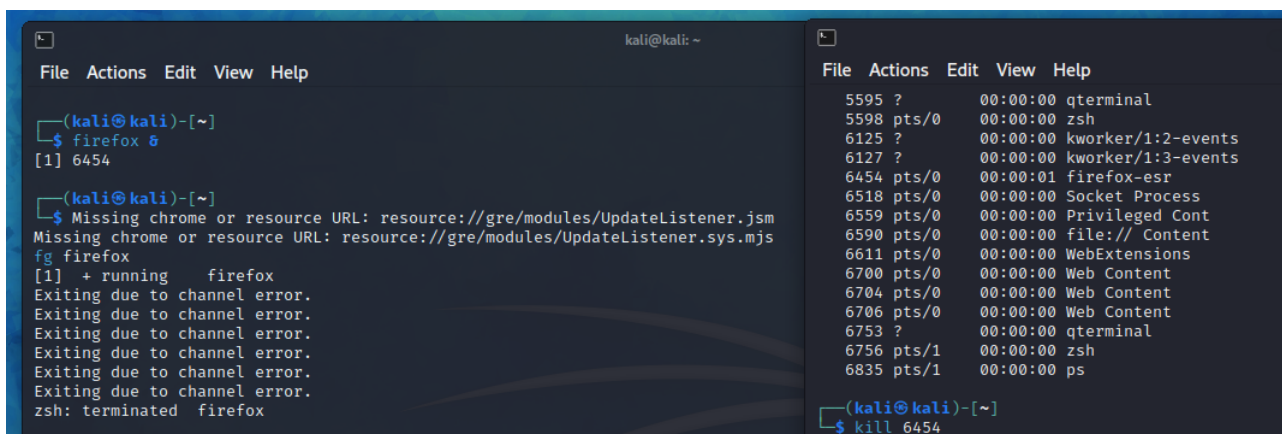
zsh: terminated vi pippo.txt
4948 ?
5030 pts/1

```

6.



8.



9.

```
(kali㉿kali)-[~]  
$ df -h  
Filesystem      Size  Used Avail Use% Mounted on  
udev            947M   0    947M   0% /dev  
tmpfs           198M  924K   197M   1% /run  
/dev/sda1       79G   13G   62G   18% /  
tmpfs           987M   0    987M   0% /dev/shm  
tmpfs           5.0M   0    5.0M   0% /run/lock  
tmpfs           198M   76K   198M   1% /run/user/1000
```