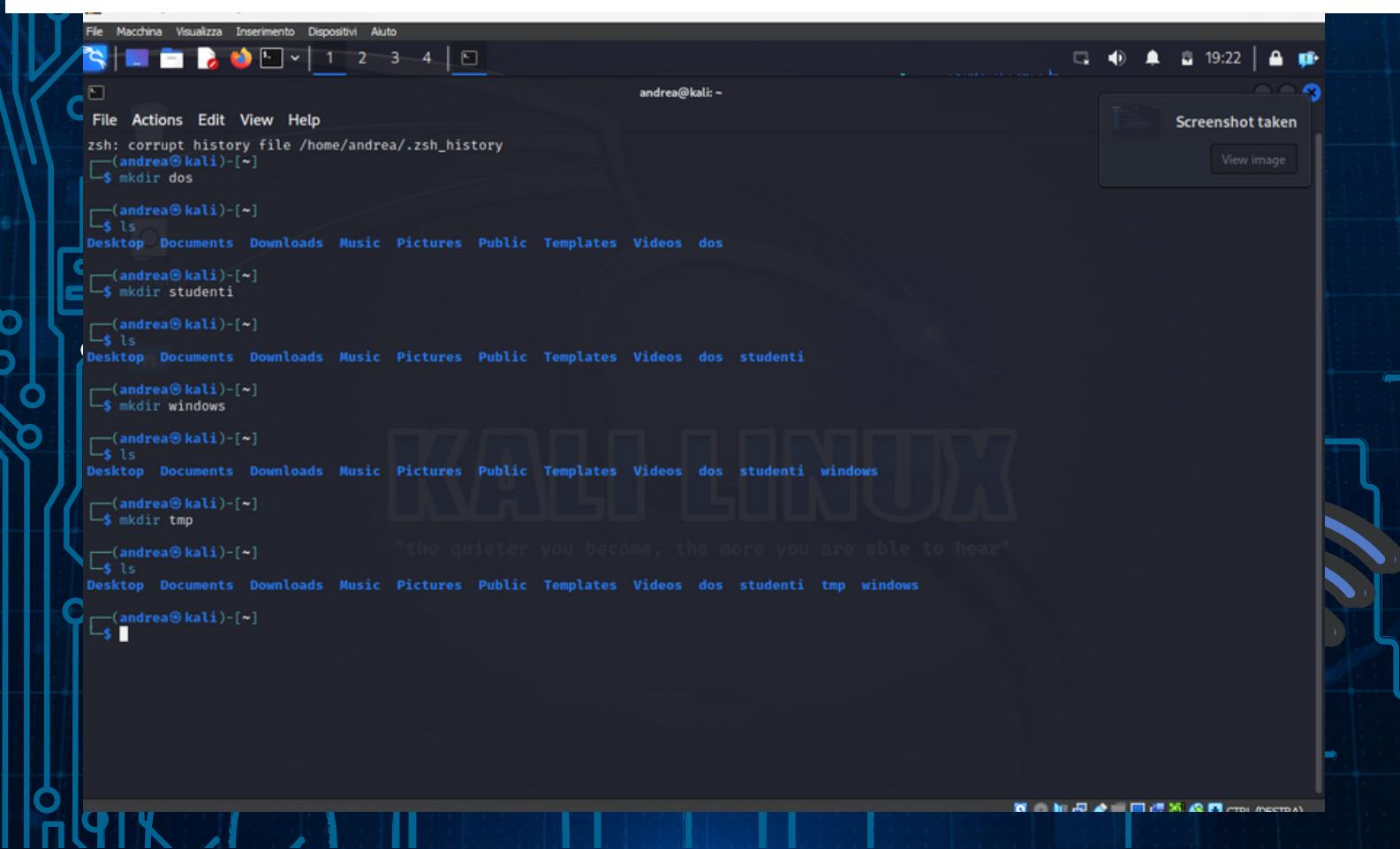
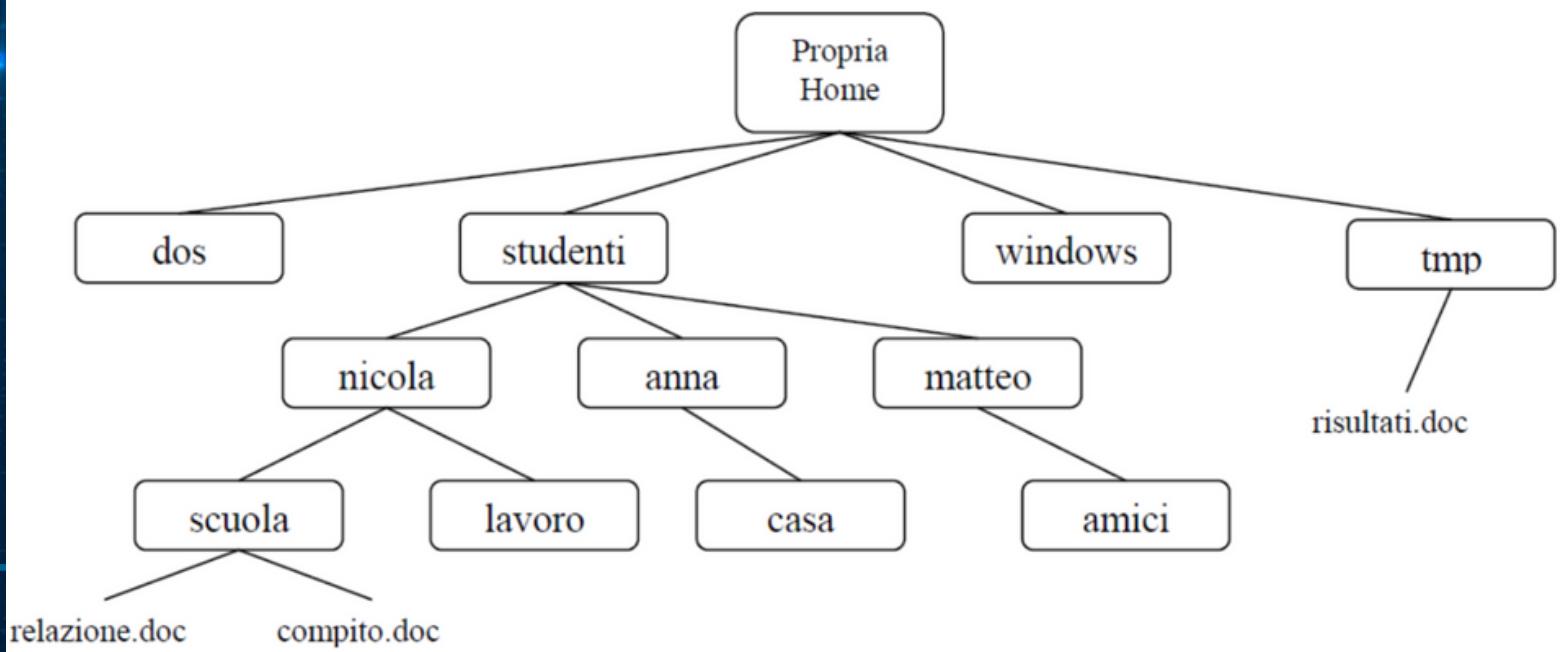


COMANDI LiNUX



Andrea Ferrantino

Iniziamo a creare le carte lle come in figura con i comandi
mkdir, cd, rmdir



```
File Macchina Visualizza Inserimento Dispositivi Auto
File Actions Edit View Help
zsh: corrupt history file /home/andrea/.zsh_history
(andrea@kali)-[~]
$ mkdir dos
(andrea@kali)-[~]
$ ls
Desktop Documents Downloads Music Pictures Public Templates Videos dos
(andrea@kali)-[~]
$ mkdir studenti
(andrea@kali)-[~]
$ ls
Desktop Documents Downloads Music Pictures Public Templates Videos dos studenti
(andrea@kali)-[~]
$ mkdir windows
(andrea@kali)-[~]
$ ls
Desktop Documents Downloads Music Pictures Public Templates Videos dos studenti windows
(andrea@kali)-[~]
$ mkdir tmp
(andrea@kali)-[~]
$ ls
Desktop Documents Downloads Music Pictures Public Templates Videos dos studenti tmp windows
(andrea@kali)-[~]
$
```

The terminal window shows the creation of a directory structure. It starts with a standard menu bar. The terminal prompt is "andrea@kali: ~". The user runs several "mkdir" commands to create directories "dos", "studenti", "windows", and "tmp". After each "mkdir" command, the user runs "ls" to list the contents of the current directory, which shows the newly created directories along with existing ones like "Desktop", "Documents", etc. A tooltip "Screenshot taken" is visible in the top right corner of the window.

- Il comando “mkdir” serve per creare delle directory
- il comando “dc” serve per spostarsi da una directory all’altra
- il comando “ls” serve per vedere il contenuto delle directory

Copiare e spostare un file

Successivamente compiamo il file con il comando cp

E possiamo spostare i file con il comando mv

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

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

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

Cancellare una directory

Per cancellare si possono usare due comandi:

- rmdir per cancellare le directory vuote
- rm per cancellare directory che contengono file

```
(andrea㉿kali)-[~]
$ rm -r tmp

(andrea㉿kali)-[~]
$ ls
Desktop Documents Downloads Music Pictures Public Templates Videos dos relazione.doc studenti windows

(andrea㉿kali)-[~]
$
```

Cambiare i permessi di un file

Per cambiare i permessi di un file dobbiamo usare il comando “chmod” per renderlo sia scrivibile che leggibile dal proprietario ma solo leggibile per i guest attraverso il comando “chmod 644”

Il numero 644 rappresenta i permessi di un file:

- il primo rappresenta i permessi del proprietario
- il secondo rappresenta i permessi del gruppo
- il terzo rappresenta i permessi per gli altri utenti

Quindi i permessi sono assegnati in base alla somma dei valori seguenti:

- 4 (r) lettura
- 2 (w) scrittura
- 1 (x) esecuzione

In questo caso usiamo questa regola al file "pippo.txt" con il comando "touch pippo.txt"

```
(andrea㉿kali)-[~/studenti/nicola/lavoro]
$ chmod 644 pippo.txt

(andrea㉿kali)-[~/studenti/nicola/lavoro]
$ ls -l pippo.txt
-rw-r--r-- 1 andrea andrea 0 Nov 23 16:25 pippo.txt

$
```

Nascondere una directory

Per nascondere una directory basta mettere prima del nome "." Perciò usiamo il comando mv anna .anna. Inoltre per elencare le directory nascoste usiamo il comando ls-a:

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

```
(andrea㉿kali)-[~/studenti]  
$ ls -a  
. .. .anna matteo nicola
```

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

Visualizzare il contenuto di un file

Per visualizzare i contenuti di un file utilizziamo i comandi:

- cat: ci mostra il contenuto completo del file
- less: questo comando ci permette di scorrere il contenuto del file una pagina alla volta
- more: consente di scorrere il contenuto pagina per pagina

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

(andrea㉿kali)-[~/studenti/nicola/lavoro]
$ more pippo.txt
Epicode esercitazione comandi di Linux.

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

Rimuovere cartelle

Per eliminare una cartella usiamo il comando “rmdir” come da figura qui sotto:

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

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

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

(andrea㉿kali)-[~/studenti/matteo]
$ ls
$ █
```

Rimuovere tutte le cartelle

Invece per eliminare tutte le cartelle usiamo "rm -r"

```
(andrea㉿kali)-[~]
$ ls
Desktop Documents Downloads Music Pictures Public Templates Videos dos relazione.doc studenti windows
(andrea㉿kali)-[~]
$ rm -r dos studenti windows relazione.doc
(andrea㉿kali)-[~]
$ ls
Desktop Documents Downloads Music Pictures Public Templates Videos
(andrea㉿kali)-[~]
$
```

Prova dei comandi

il comando "w" è usato per vedere le informazioni degli utenti connessi inclusi tutti i dettagli

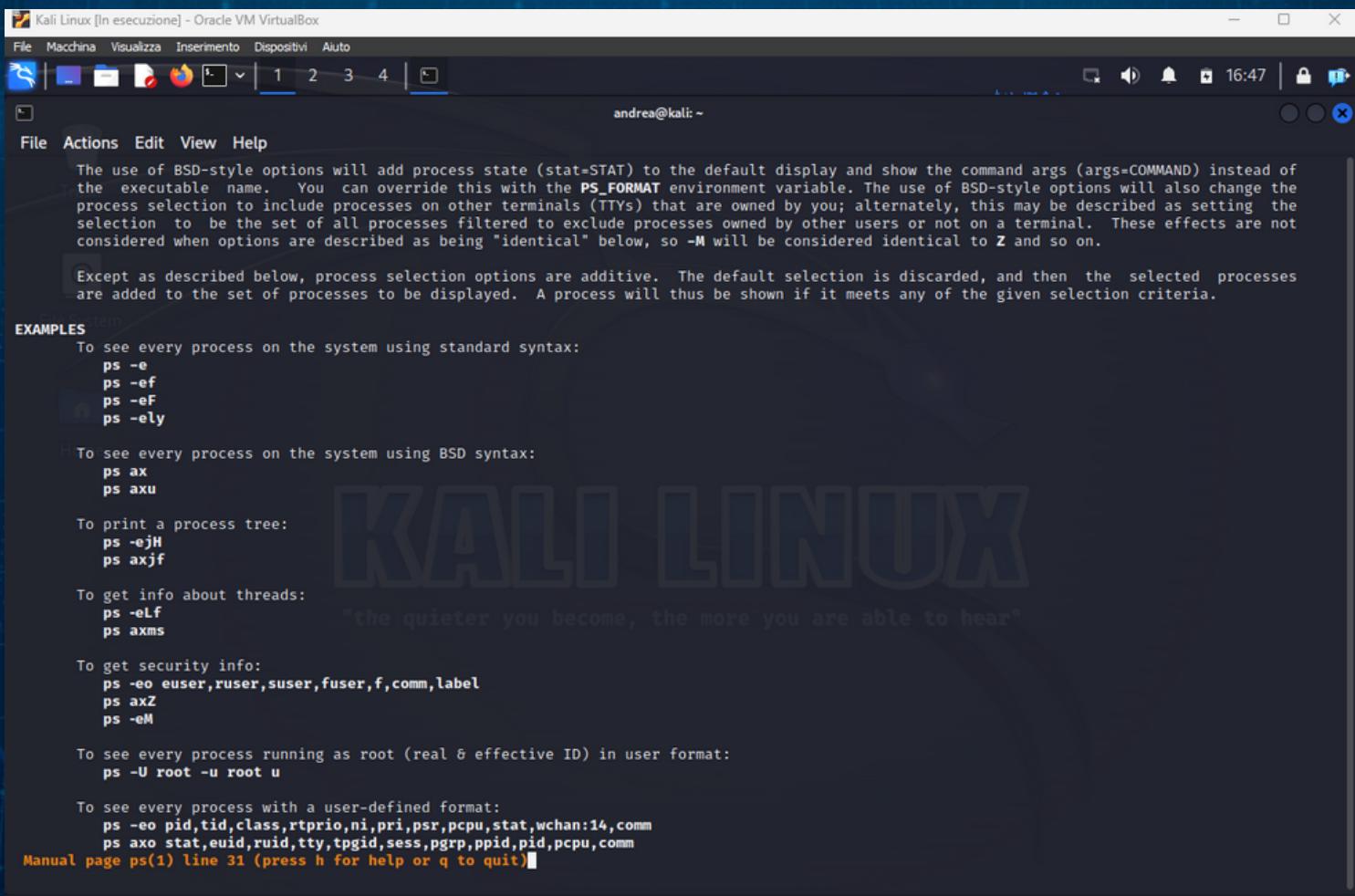
```
$ w
16:46:33 up 1:03, 1 user, load average: 0.08, 0.09, 0.06
USER    TTY      FROM          LOGIN@     IDLE    JCPU   PCPU WHAT
andrea  tty7     :0           15:50     1:03m 57.33s  0.87s xfce4-session
(andrea㉿kali)-[~]
$
```

“who” invece serve per visualizzare le informazioni sugli utenti connessi attualmente come da figura

```
(andrea㉿kali)-[~]
$ w
16:46:33 up 1:03, 1 user, load average: 0.08, 0.09, 0.06
USER    TTY      FROM          LOGIN@     IDLE    JCPU   PCPU WHAT
andrea  tty7     :0           15:50     1:03m 57.33s  0.87s xfce4-session
(andrea㉿kali)-[~]
$ who
andrea  tty7      2023-11-23 15:50 (:0)
(andrea㉿kali)-[~]
$ whoami
andrea
(andrea㉿kali)-[~]
$
```

Leggere i manuali jobs,pc e kill

Digitando il comando “man ps” possiamo visualizzare il manuale



Kali Linux [In esecuzione] - Oracle VM VirtualBox

File Macchina Visualizza Inserimento Dispositivi Auto

andrea@kali: ~

File Actions Edit View Help

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 (TTVs) 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

To see every process on the system using standard syntax:

```
ps -e  
ps -ef  
ps -eF  
ps -ely
```

To see every process on the system using BSD syntax:

```
ps ax  
ps axu
```

To print a process tree:

```
ps -ejH  
ps axjf
```

To get info about threads:

```
ps -elf  
ps axms
```

To get security info:

```
ps -eo euser,ruser,suser,fuser,f,comm,label  
ps axZ  
ps -eM
```

To see every process running as root (real & effective ID) in user format:

```
ps -U root -u root u
```

To see every process with a user-defined format:

```
ps -eo pid,tid,class,rtprio,ni,pri,psr,pcpu,stat,wchan:14,comm  
ps axo stat,euid,ruid,tty,tpgid,ses,pggrp,ppid,pid,pcpu,comm
```

Manual page ps(1) line 31 (press h for help or q to quit)

Mentre il comando “man kill”:

```
Kali Linux [In esecuzione] - Oracle VM VirtualBox
File Macchina Visualizza Inserimento Dispositivi Aiuto
1 2 3 4 | ☐
andrea@kali: ~
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>
- <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
    Manual page kill(1) line 1 (press h for help or q to quit)
```

Per il comando “jobs” invece occore digitare “man builtins” che ci permetterà di visualizzare tutta la banca dei dati manuali presenti

```
Kali Linux [In esecuzione] - Oracle VM VirtualBox
File Macchina Visualizza Inserimento Dispositivi Aiuto
andrea@kali: ~
File Actions Edit View Help
BASH-BUILTINS (7) Miscellaneous Information Manual BASH-BUILTINS (7)
NAME
bash-builtins - bash built-in commands, see bash(1)

SYNOPSIS
bash defines the following built-in commands: :, ., [, alias, bg, bind, break, builtin, case, cd, command, compgen, complete, continue,
declare, dirs, disown, echo, enable, eval, exec, exit, export, fc, fg, getopt, hash, help, history, if, jobs, kill, let, local, logout,
popd, printf, pushd, pwd, read, readonly, return, set, shift, shopt, source, suspend, test, times, trap, type, typeset, ulimit, umask, un-
alias, unset, until, wait, while.

BASH BUILTIN COMMANDS
Unless otherwise noted, each builtin command documented in this section as accepting options preceded by - accepts -- to signify the end
of the options. The :, true, false, and test/[ builtins do not accept options and do not treat -- specially. The exit, logout, return,
break, continue, let, and shift builtins accept and process arguments beginning with - without requiring --. Other builtins that accept
arguments but are not specified as accepting options interpret arguments beginning with - as invalid options and require -- to prevent
this interpretation.
: [arguments]
    No effect; the command does nothing beyond expanding arguments and performing any specified redirections. The return status is
    zero.

. filename [arguments]
source filename [arguments]
    Read and execute commands from filename in the current shell environment and return the exit status of the last command executed
    from filename. If filename does not contain a slash, filenames in PATH are used to find the directory containing filename, but
filename does not need to be executable. The file searched for in PATH need not be executable. When bash is not in posix mode, it
    searches the current directory if no file is found in PATH. If the sourcpath option to the shopt builtin command is turned off,
    the PATH is not searched. If any arguments are supplied, they become the positional parameters when filename is executed. Otherwise
    the positional parameters are unchanged. If the -T option is enabled, . inherits any trap on DEBUG; if it is not, any DEBUG
    trap string is saved and restored around the call to ., and . unsets the DEBUG trap while it executes. If -T is not set, and the
    sourced file changes the DEBUG trap, the new value is retained when . completes. The return status is the status of the last com-
    mand exited within the script (0 if no commands are executed), and false if filename is not found or cannot be read.

alias [-p] [name[=value] ... ]
    Alias with no arguments or with the -p option prints the list of aliases in the form alias name=value on standard output. When ar-
    guments are supplied, an alias is defined for each name whose value is given. A trailing space in value causes the next word to be
    checked for alias substitution when the alias is expanded. For each name in the argument list for which no value is supplied, the
    name and value of the alias is printed. Alias returns true unless a name is given for which no alias has been defined.

Manual page builtins(7) line 1 (press h for help or q to quit)
```

Comando VI e terminazione dei processi

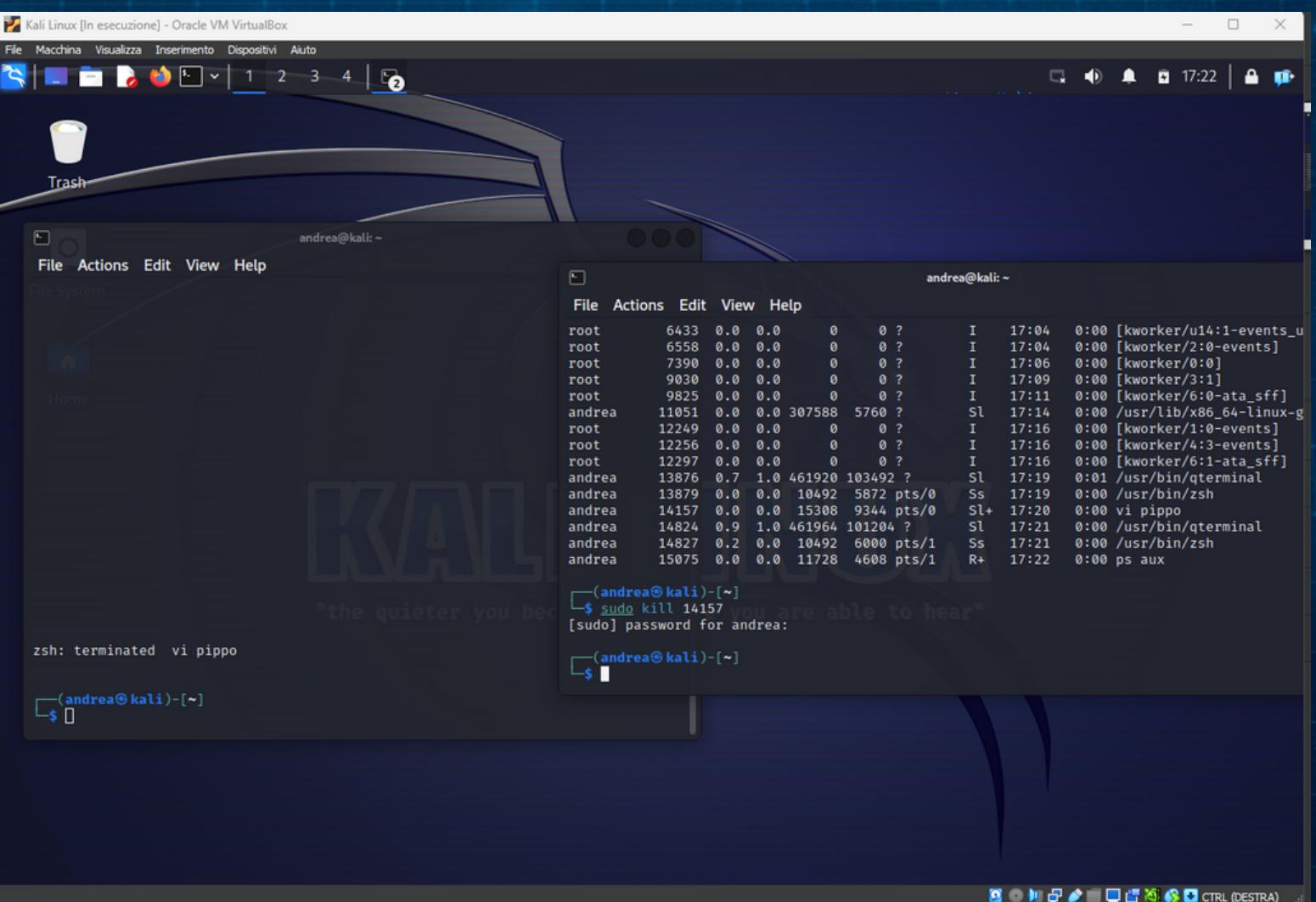
Usando il comando “Vi pippo per creare un editing di testo,fatto ciò teniamo la finestra aperta e apriamo un altro terminale digidando “ps -all” che ci permette di vedere tutti i processi in corso.

Digitando “kill pid” il processo verrà interrotto.



Avvio di firefox in background e termine del processo

Per lanciare Firefox in background possiamo utilizzare l'operatore & alla fine "firefox &"



Verifica spazio disco

per verificare lo spazio del disco lanciamo il comando “df-h”,esso mostra i dettagli del disco,lo spazio totale e quello utlizzato

```
[andrea@kali)-[~]
$ df -h
Filesystem      Size  Used Avail Use% Mounted on
udev            4.6G   0    4.6G  0% /dev
tmpfs           932M  1.1M  931M  1% /run
/dev/sda1        24G   14G   8.6G  62% /
tmpfs           4.6G   0    4.6G  0% /dev/shm
tmpfs           5.0M   0    5.0M  0% /run/lock
tmpfs           932M  112K  932M  1% /run/user/1000

[andrea@kali)-[~]
$
```