

Assessment-1

Title: Linux Command List Assessment

NAME-SHREYA DOKANIA

File and Directory Operations:

ls

```
[└(hacker2002㉿kali)-[~]
└$ ls
Desktop Documents Downloads Music Pictures Public Templates Videos
[└(hacker2002㉿kali)-[~]
└$ ]]
```

cd

```
[└(hacker2002㉿kali)-[~]
└$ cd
[└(hacker2002㉿kali)-[~]
└$ ]]
```

pwd

```
[└(hacker2002㉿kali)-[~]
└$ pwd
/home/hacker2002
[└(hacker2002㉿kali)-[~]
└$ ]]
```

mkdir

```
└$ mkdir
mkdir: missing operand
Try 'mkdir --help' for more information.

[~] (hacker2002㉿kali)-[~]
└$ mkdir --help
Usage: mkdir [OPTION] ... DIRECTORY...
Create the DIRECTORY(ies), if they do not already exist.

Mandatory arguments to long options are mandatory for short options too.
 -m, --mode=MODE    set file mode (as in chmod), not a=rwx - umask
 -p, --parents      no error if existing, make parent directories as needed,
                   with their file modes unaffected by any -m option.
 -v, --verbose      print a message for each created directory
 -Z                 set SELinux security context of each created directory
                   to the default type
 --context[=CTX]   like -Z, or if CTX is specified then set the SELinux
                   or SMACK security context to CTX
 --help            display this help and exit
 --version         output version information and exit

GNU coreutils online help: <https://www.gnu.org/software/coreutils/>
Full documentation <https://www.gnu.org/software/coreutils/mkdir>
or available locally via: info '(coreutils) mkdir invocation'
```

touch

```
(hacker2002㉿kali)-[~]
└─$ touch
touch: missing file operand
Try 'touch --help' for more information.

(hacker2002㉿kali)-[~]
└─$ touch --help
Usage: touch [OPTION] ... FILE ...
Update the access and modification times of each FILE to the current time.

A FILE argument that does not exist is created empty, unless -c or -h
is supplied.

A FILE argument string of - is handled specially and causes touch to
change the times of the file associated with standard output.

Mandatory arguments to long options are mandatory for short options too.
-a                                change only the access time
-c, --no-create                     do not create any files
-d, --date=STRING                   parse STRING and use it instead of current time
-f                                (ignored)
-h, --no-dereference                affect each symbolic link instead of any referenced
                                     file (useful only on systems that can change the
                                     timestamps of a symlink)
-m                                change only the modification time
-r, --reference=FILE               use this file's times instead of current time
-t STAMP                           use [[CC]YY]MMDDhhmm[.ss] instead of current time
--time=WORD                         change the specified time:
                                     WORD is access, atime, or use: equivalent to -a
                                     WORD is modify or mtime: equivalent to -m
--help                             display this help and exit
--version                          output version information and exit

Note that the -d and -t options accept different time-date formats.

GNU coreutils online help: <https://www.gnu.org/software/coreutils/>
Full documentation <https://www.gnu.org/software/coreutils/touch>
or available locally via: info '(coreutils) touch invocation'
```

cp

```
└──(hacker2002㉿kali)-[~]
└─$ cp
cp: missing file operand
Try 'cp --help' for more information.

└──(hacker2002㉿kali)-[~]
└─$ cp --help
Usage: cp [OPTION] ... [-T] SOURCE DEST
      or: cp [OPTION] ... SOURCE ... DIRECTORY
      or: cp [OPTION] ... -t DIRECTORY SOURCE ...
Copy SOURCE to DEST, or multiple SOURCE(s) to DIRECTORY.

Mandatory arguments to long options are mandatory for short options too.
-a, --archive                  same as -dR --preserve=all
--attributes-only              don't copy the file data, just the attributes
--backup[=CONTROL]             make a backup of each existing destination fil
e
-b                                like --backup but does not accept an argument
--copy-contents                copy contents of special files when recursive
-d                                same as --no-dereference --preserve=links
-f, --force                      if an existing destination file cannot be
                                 opened, remove it and try again (this option
                                 is ignored when the -n option is also used)
-i, --interactive                prompt before overwrite (overrides a previous
-n                                option)
-H                                follow command-line symbolic links in SOURCE
-l, --link                         hard link files instead of copying
-L, --dereference                 always follow symbolic links in SOURCE
-n, --no-clobber                   do not overwrite an existing file (overrides
                                 a previous -i option)
-P, --no-dereference              never follow symbolic links in SOURCE
-p                                same as --preserve=mode,ownership,timestamps
--preserve[=ATTR_LIST]            preserve the specified attributes (default:
                                 mode,ownership,timestamps), if possible
                                 additional attributes: context, links, xattr
,
--no-preserve=ATTR_LIST           all
--parents                         don't preserve the specified attributes
                                 use full source file name under DIRECTORY
```

mv

```
hacker2002@kali: ~
File Actions Edit View Help
└──(hacker2002㉿kali)-[~]
└─$ mv
mv: missing file operand
Try 'mv --help' for more information.

└──(hacker2002㉿kali)-[~]
└─$ mv --help
Usage: mv [OPTION] ... [-T] SOURCE DEST
      or: mv [OPTION] ... SOURCE ... DIRECTORY
      or: mv [OPTION] ... -t DIRECTORY SOURCE ...
Rename SOURCE to DEST, or move SOURCE(s) to DIRECTORY.

Mandatory arguments to long options are mandatory for short options too.
      --backup[=CONTROL]      make a backup of each existing destination fil
e
      -b                      like --backup but does not accept an argument
      -f, --force              do not prompt before overwriting
      -i, --interactive        prompt before overwrite
      -n, --no-clobber         do not overwrite an existing file
If you specify more than one of -i, -f, -n, only the final one takes effect.
      --strip-trailing-slashes remove any trailing slashes from each SOURCE
                        argument
      -S, --suffix=SUFFIX      override the usual backup suffix
      -t, --target-directory=DIRECTORY move all SOURCE arguments into DIRECTORY
      -T, --no-target-directory treat DEST as a normal file
      -u, --update              move only when the SOURCE file is newer
                        than the destination file or when the
                        destination file is missing
      -v, --verbose             explain what is being done
      -Z, --context             set SELinux security context of destination
                        file to default type
      --help                   display this help and exit
      --version                output version information and exit

The backup suffix is '~', unless set with --suffix or SIMPLE_BACKUP_SUFFIX.
The version control method may be selected via the --backup option or through
the VERSION_CONTROL environment variable. Here are the values:

none, off      never make backups (even if --backup is given)
numbered, t    make numbered backups
```

rm

```
[hacker2002@kali:~]
File Actions Edit View Help
[(hacker2002㉿kali)-[~]
$ rm
rm: missing operand
Try 'rm --help' for more information.

[(hacker2002㉿kali)-[~]
$ rm --help
Usage: rm [OPTION] ... [FILE] ...
Remove (unlink) the FILE(s).

-f, --force           ignore nonexistent files and arguments, never prompt
-i                   prompt before every removal
-I                   prompt once before removing more than three files, or
                     when removing recursively; less intrusive than -i,
                     while still giving protection against most mistakes
--interactive[=WHEN]  prompt according to WHEN: never, once (-I), or
                     always (-i); without WHEN, prompt always
--one-file-system    when removing a hierarchy recursively, skip any
                     directory that is on a file system different from
                     that of the corresponding command line argument
--no-preserve-root   do not treat '/' specially
--preserve-root[=all] do not remove '/' (default);
                     with 'all', reject any command line argument
                     on a separate device from its parent
-r, -R, --recursive  remove directories and their contents recursively
-d, --dir             remove empty directories
-v, --verbose         explain what is being done
--help               display this help and exit
--version            output version information and exit

By default, rm does not remove directories. Use the --recursive (-r or -R)
option to remove each listed directory, too, along with all of its contents.

To remove a file whose name starts with a '-', for example '-foo',
use one of these commands:
  rm -- -foo
  rm ./-foo

Note that if you use rm to remove a file, it might be possible to recover
```

find

```
(hacker2002㉿kali)-[~]
$ find

./Downloads
./.bash_logout
./.bashrc.original
./.cache
./.cache/gststreamer-1.0
./.cache/gststreamer-1.0/registry.aarch64.bin
./.cache/mesa_shader_cache
./.cache/mesa_shader_cache/index
./.cache/obexd
./.cache/sessions
./.cache/zcompdump
./.sudo_as_admin_successful
./.bashrc
./.local
./.local/share
./.local/share/nautilus
./.local/share/nautilus/scripts
./.local/share/nautilus/scripts/Terminal
./.local/share/Mousepad
./.local/share/icc
./.local/share/keyrings
./.local/share/keyrings/user.keystore
./.local/share/keyrings/login.keyring
./Public
./.config
./.config/nautilus
./.config/nautilus/scripts-accel
./.config/gtk-3.0
./.config/gtk-3.0/bookmarks
./.config/dconf
./.config/dconf/user
./.config/xfce4
./.config/xfce4/panel
./.config/xfce4/panel/cpugraph-13.rc
./.config/xfce4/panel/genmon-15.rc
```

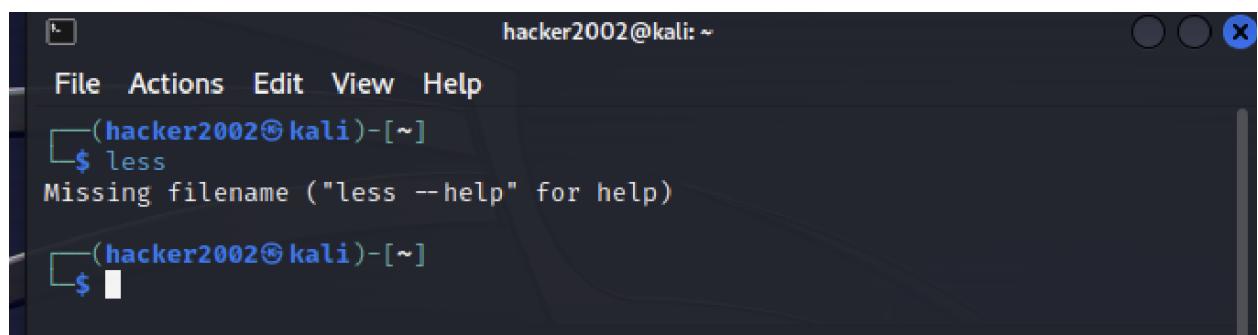
File Viewing and Editing:

cat

```
└──(hacker2002㉿kali)-[~]
└─$ cat /etc/os-release
PRETTY_NAME="Kali GNU/Linux Rolling"
NAME="Kali GNU/Linux"
VERSION="2023.1"
VERSION_ID="2023.1"
VERSION_CODENAME="kali-rolling"
ID=kali
ID_LIKE=debian
HOME_URL="https://www.kali.org/"
SUPPORT_URL="https://forums.kali.org/"
BUG_REPORT_URL="https://bugs.kali.org/"
ANSI_COLOR="1;31"
```

```
└──(hacker2002㉿kali)-[~]
└─$ █
```

less



A screenshot of a terminal window titled "hacker2002@kali:~". The window has a dark theme with light-colored text. The menu bar includes "File", "Actions", "Edit", "View", and "Help". The terminal prompt is "(hacker2002㉿kali)-[~]". The user types "\$ less" and receives the message "Missing filename ("less --help" for help)". The window has standard OS X-style window controls at the top right.

```
hacker2002@kali:~
```

```
File Actions Edit View Help
└──(hacker2002㉿kali)-[~]
└─$ less
Missing filename ("less --help" for help)

└──(hacker2002㉿kali)-[~]
└─$ █
```

head

hacker2002@kali: ~

File Actions Edit View Help

```
(hacker2002㉿kali)-[~]
$ head
```

shreya - Thunar

File Edit View Go Bookmarks Help

hacker2002 Desktop shreya

Places

Computer

Tail

hacker2002@kali: ~

File Actions Edit View Help

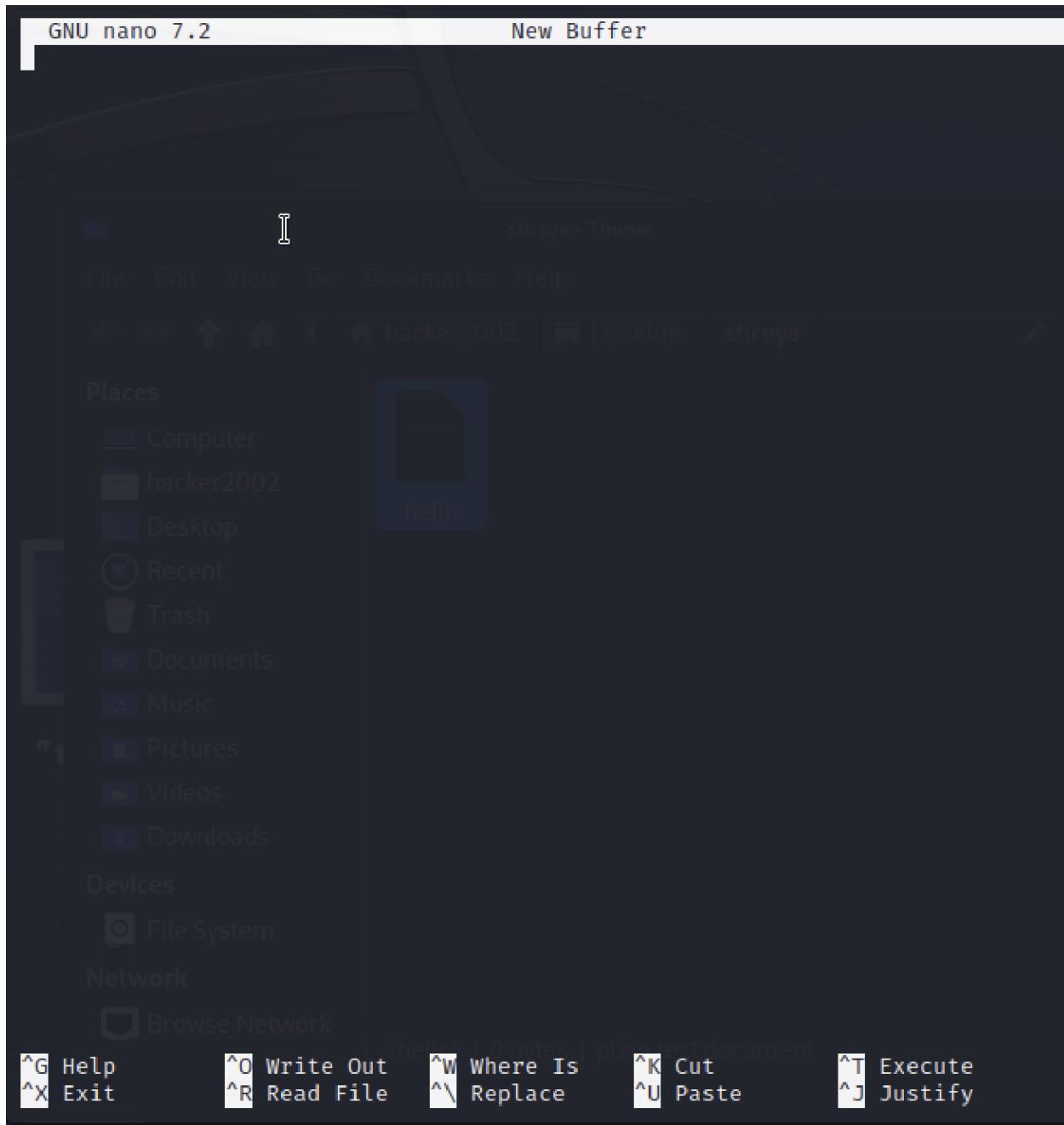
```
hacker2002@kali: ~ x  hacker2002@kali: ~ x
```

```
(hacker2002㉿kali)-[~]
$ tail
```

shreya - Thunar

File Edit View Go Bookmarks Help

Nano



Vim

VIM - Vi IMproved
version 9.0.1165
by Bram Moolenaar et al.
Modified by team+vim@tracker.debian.org
Vim is open source and freely distributable

Become a registered Vim user!
type :help register<Enter> for information

type :q<Enter> to exit
type :help<Enter> or <F1> for on-line help
type :help version9<Enter> for version info

"the quieter you become, the more you are able to hear"

0,0-1 All

File Permissions:

Chmod

```
(hacker2002㉿kali)-[~]
└─$ chmod
chmod: missing operand
Try 'chmod --help' for more information.

(hacker2002㉿kali)-[~]
└─$ chmod --help
Usage: chmod [OPTION] ... MODE[,MODE] ... FILE ...
      or: chmod [OPTION] ... OCTAL-MODE FILE ...
      or: chmod [OPTION] ... --reference=RFILE FILE ...
Change the mode of each FILE to MODE.
With --reference, change the mode of each FILE to that of RFILE.

-c, --changes          like verbose but report only when a change is made
-f, --silent, --quiet   suppress most error messages
-v, --verbose           output a diagnostic for every file processed
--no-preserve-root     do not treat '/' specially (the default)
--preserve-root         fail to operate recursively on '/'
--reference=RFILE       use RFILE's mode instead of MODE values
-R, --recursive         change files and directories recursively
--help                  display this help and exit
--version               output version information and exit

Each MODE is of the form '[ugoa]*([-=]([rwxXst]*|[ugo]))+|[-=][0-7]+'.

GNU coreutils online help: <https://www.gnu.org/software/coreutils/>
Full documentation <https://www.gnu.org/software/coreutils/chmod>
or available locally via: info '(coreutils) chmod invocation'

(hacker2002㉿kali)-[~]
└─$
```

Chown

```
[hacker2002㉿kali)-[~]
└─$ chown
chown: missing operand
Try 'chown --help' for more information.

[hacker2002㉿kali)-[~]
└─$ chown --help
Usage: chown [OPTION] ... [OWNER][:[GROUP]] FILE ...
      or: chown [OPTION] ... --reference=RFILE FILE ...
Change the owner and/or group of each FILE to OWNER and/or GROUP.
With --reference, change the owner and group of each FILE to those of RFILE.

-c, --changes          like verbose but report only when a change is made
-f, --silent, --quiet   suppress most error messages
-v, --verbose           output a diagnostic for every file processed
--dereference          affect the referent of each symbolic link (this is
                       the default), rather than the symbolic link itself
-h, --no-dereference    affect symbolic links instead of any referenced file
                       (useful only on systems that can change the
                       ownership of a symlink)
--from=CURRENT_OWNER:CURRENT_GROUP
                       change the owner and/or group of each file only if
                       its current owner and/or group match those specified
                       here. Either may be omitted, in which case a match
                       is not required for the omitted attribute
--no-preserve-root      do not treat '/' specially (the default)
--preserve-root         fail to operate recursively on '/'
--reference=RFILE       use RFILE's owner and group rather than
                       specifying OWNER:GROUP values
-R, --recursive         operate on files and directories recursively

The following options modify how a hierarchy is traversed when the -R
option is also specified. If more than one is specified, only the final
one takes effect.

-H                      if a command line argument is a symbolic link
                       to a directory, traverse it
-L                      traverse every symbolic link to a directory
```

Chgrp

```
[hacker2002㉿kali)-[~]
└─$ chgrp
chgrp: missing operand
Try 'chgrp --help' for more information.

[hacker2002㉿kali)-[~]
└─$ chfrp --help
Command 'chfrp' not found, did you mean:
  command 'chirp' from deb coop-computing-tools
  command 'chgrp' from deb coreutils
Try: sudo apt install <deb name>

[hacker2002㉿kali)-[~]
└─$ chgrp
chgrp: missing operand
Try 'chgrp --help' for more information.

[hacker2002㉿kali)-[~]
└─$ chgrp --help
Usage: chgrp [OPTION] ... GROUP FILE ...
      or: chgrp [OPTION] ... --reference=RFILE FILE ...
Change the group of each FILE to GROUP.
With --reference, change the group of each FILE to that of RFILE.

 -c, --changes           like verbose but report only when a change is made
 -f, --silent, --quiet   suppress most error messages
 -v, --verbose            output a diagnostic for every file processed
                         --dereference affect the referent of each symbolic link (this is
                         the default), rather than the symbolic link itself
 -h, --no-dereference    affect symbolic links instead of any referenced file
                         (useful only on systems that can change the
                         ownership of a symlink)
 --no-preserve-root      do not treat '/' specially (the default)
 --preserve-root         fail to operate recursively on '/'
 --reference=RFILE       use RFILE's group rather than specifying a
                         GROUP value
 -R, --recursive          operate on files and directories recursively

The following options modify how a hierarchy is traversed when the -R
option is also specified. If more than one is specified, only the final
```

File Compression and Archiving:

Tar

```
hacker2002@kali:~
```

File Actions Edit View Help

```
(hacker2002㉿kali)-[~]
$ tar
tar: You must specify one of the '-Acdtrux', '--delete' or '--test-label' options
Try 'tar --help' or 'tar --usage' for more information.
```

```
(hacker2002㉿kali)-[~]
$ tar --help
Usage: tar [OPTION... ] [FILE] ...
GNU 'tar' saves many files together into a single tape or disk archive, and can
restore individual files from the archive.
```

Examples:

```
tar -cf archive.tar foo bar    # Create archive.tar from files foo and bar.
tar -tvf archive.tar          # List all files in archive.tar verbosely.
tar -xf archive.tar          # Extract all files from archive.tar.
```

Main operation mode:

```
-A, --catenate, --concatenate      append tar files to an archive
-c, --create                         create a new archive
--delete                            delete from the archive (not on mag tapes!)
-d, --diff, --compare                find differences between archive and file system
-r, --append                          append files to the end of an archive
--test-label                         test the archive volume label and exit
-t, --list                            list the contents of an archive
-u, --update                          only append files newer than copy in archive
-x, --extract, --get                 extract files from an archive
```

Operation modifiers:

```
--check-device                      check device numbers when creating incremental
                                     archives (default)
-g, --listed-incremental=FILE        handle new GNU-format incremental backup
-G, --incremental                     handle old GNU-format incremental backup
--hole-detection=TYPE                technique to detect holes
--ignore-failed-read                do not exit with nonzero on unreadable files
--level=NUMBER                       dump level for created listed-incremental archive
-e
--no-check-device                   do not check device numbers when creating
```

Gzip

```
[hacker2002㉿kali)-[~]
$ gzip
gzip: compressed data not written to a terminal. Use -f to force compression.
For help, type: gzip -h

[hacker2002㉿kali)-[~]
$ gzip -h
Usage: gzip [OPTION] ... [FILE] ...
Compress or uncompress FILEs (by default, compress FILES in-place).

Mandatory arguments to long options are mandatory for short options too.

-c, --stdout      write on standard output, keep original files unchanged
-d, --decompress  decompress
-f, --force       force overwrite of output file and compress links
-h, --help        give this help
-k, --keep        keep (don't delete) input files
-l, --list         list compressed file contents
-L, --license     display software license
-n, --no-name    do not save or restore the original name and timestamp
-N, --name        save or restore the original name and timestamp
-q, --quiet       suppress all warnings
-r, --recursive   operate recursively on directories
      --rsyncable  make rsync-friendly archive
-S, --suffix=SUF use suffix SUF on compressed files
      --synchronous synchronous output (safer if system crashes, but slower)
-t, --test        test compressed file integrity
-v, --verbose     verbose mode
-V, --version    display version number
-1, --fast        compress faster
-9, --best        compress better

With no FILE, or when FILE is -, read standard input.

Report bugs to <bug-gzip@gnu.org>.
```

Unzip

```
(hacker2002㉿kali)-[~]
$ unzip
UnZip 6.00 of 20 April 2009, by Debian. Original by Info-ZIP.

Usage: unzip [-Z] [-opts[modifiers]] file[.zip] [list] [-x xlist] [-d exdir]
      Default action is to extract files in list, except those in xlist, to exdir
;
      file[.zip] may be a wildcard. -Z ⇒ ZipInfo mode ("unzip -Z" for usage).

-p  extract files to pipe, no messages      -l  list files (short format)
-f  freshen existing files, create none    -t  test compressed archive data
-u  update files, create if necessary     -z  display archive comment only
-v  list verbosely/show version info      -T  timestamp archive to latest
-x  exclude files that follow (in xlist)   -d  extract files into exdir
modifiers:
-n  never overwrite existing files        -q  quiet mode (-qq ⇒ quieter)
-o  overwrite files WITHOUT prompting     -l[a] auto-convert any text files
-j  junk paths (do not make directories)  -aa treat ALL files as text
-U  use escapes for all non-ASCII Unicode -UU ignore any Unicode fields
-C  match filenames case-insensitively   -L  make (some) names lowercase
-X  restore UID/GID info                 -V  retain VMS version numbers
-K  keep setuid/setgid/tacky permissions  -M  pipe through "more" pager
See "unzip -hh" or unzip.txt for more help. Examples:
      unzip data1 -x joe    ⇒ extract all files except joe from zipfile data1.zip
      unzip -p foo | more   ⇒ send contents of foo.zip via pipe into program more
      unzip -fo foo ReadMe ⇒ quietly replace existing ReadMe if archive file newer
```

Process Management:

Ps

```
[hacker2002㉿kali)-[~]
$ ps
 PID TTY          TIME CMD
 9462 pts/0        00:00:00 zsh
 11593 pts/0        00:00:00 ps
```

```
[hacker2002㉿kali)-[~]
$ █
```

Top

```

└──(hacker2002㉿kali)-[~]
$ top
top - 13:52:14 up 21 min,  1 user,  load average: 0.02, 0.05, 0.00
Tasks: 147 total,   1 running, 146 sleeping,   0 stopped,   0 zombie
%Cpu(s):  0.4 us,  0.6 sy,  0.0 ni, 99.0 id,  0.0 wa,  0.0 hi,  0.0 si,  0.0
MiB Mem : 3922.2 total, 2931.0 free,  680.6 used,  487.4 buff/cache
MiB Swap:  976.0 total,  976.0 free,     0.0 used. 3241.5 avail Mem

      PID USER      PR  NI    VIRT    RES    SHR S %CPU %MEM TIME+
    708 root      20   0 502620 101228 62884 S  1.0  2.5  0:19.59
    710 root      20   0        0      0      0 I  0.3  0.0  0:00.90
    862 hacker2+  20   0 270872 26288 16300 S  0.3  0.7  0:00.15
    988 hacker2+  20   0 235160 28732 18664 S  0.3  0.7  0:00.67
   1012 hacker2+  20   0 279968 27920 20124 S  0.3  0.7  0:04.74
   1013 hacker2+  20   0 670220 44080 32820 S  0.3  1.1  0:01.54
   9459 hacker2+  20   0 507784 100436 83084 S  0.3  2.5  0:02.28
      1 root      20   0 168524 11616 8492 S  0.0  0.3  0:00.35
      2 root      20   0        0      0      0 S  0.0  0.0  0:00.00
      3 root      0 -20        0      0      0 I  0.0  0.0  0:00.00
      4 root      0 -20        0      0      0 I  0.0  0.0  0:00.00
      5 root      0 -20        0      0      0 I  0.0  0.0  0:00.00
      6 root      0 -20        0      0      0 I  0.0  0.0  0:00.00
      8 root      0 -20        0      0      0 I  0.0  0.0  0:00.00
     10 root      0 -20        0      0      0 I  0.0  0.0  0:00.00
     11 root      20   0        0      0      0 I  0.0  0.0  0:00.00
     12 root      20   0        0      0      0 I  0.0  0.0  0:00.00
     13 root      20   0        0      0      0 S  0.0  0.0  0:00.09
     14 root      20   0        0      0      0 I  0.0  0.0  0:00.36
     15 root      rt   0        0      0      0 S  0.0  0.0  0:00.01
     16 root      20   0        0      0      0 I  0.0  0.0  0:01.87
     17 root      20   0        0      0      0 S  0.0  0.0  0:00.00
     18 root      20   0        0      0      0 S  0.0  0.0  0:00.00
     19 root      rt   0        0      0      0 S  0.0  0.0  0:00.01
     20 root      20   0        0      0      0 S  0.0  0.0  0:00.01
     22 root      0 -20        0      0      0 I  0.0  0.0  0:00.00
     23 root      20   0        0      0      0 S  0.0  0.0  0:00.00
     24 root      rt   0        0      0      0 S  0.0  0.0  0:00.01
     25 root      20   0        0      0      0 S  0.0  0.0  0:00.00
     27 root      0 -20        0      0      0 I  0.0  0.0  0:00.00

```

Kill

```
[hacker2002㉿kali)-[~]
$ kill shaya
kill: note enough arguments

[hacker2002㉿kali)-[~]
$ kill -l
HUP INT QUIT ILL TRAP ABRT BUS FPE KILL USR1 SEGV USR2 PIPE ALRM TERM STKFLT
CHLD CONT STOP TSTP TTIN TTOU URG XCPU XFSZ VTALRM PROF WINCH POLL PWR SYS

[hacker2002㉿kali)-[~]
$ kill -help
kill: unknown signal: SIGHELP
kill: type kill -l for a list of signals

[hacker2002㉿kali)-[~]
$ kill -l
HUP INT QUIT ILL TRAP ABRT BUS FPE KILL USR1 SEGV USR2 PIPE ALRM TERM STKFLT
CHLD CONT STOP TSTP TTIN TTOU URG XCPU XFSZ VTALRM PROF WINCH POLL PWR SYS

[hacker2002㉿kali)-[~]
$ 
```

Bg

```
[hacker2002㉿kali)-[~]
$ bg -l -help
bg: no current job: SIGHELP
kill: type kill -l for a list of signals

[hacker2002㉿kali)-[~]
$ hacker2002㉿kali)-[~]
$ kill -l
HUP INT QUIT ILL TRAP ABRT BUS FPE KILL USR1 SEGV USR2 PIPE ALRM TERM STKFLT
CHLD CONT STOP TSTP TTIN TTOU URG XCPU XFSZ VTALRM PROF WINCH POLL PWR SYS

[hacker2002㉿kali)-[~]
$ 
```

Fg

```
(hacker2002㉿kali)-[~]
$ fg
fg: no current job
HUP TSTP QUIT TERM ABRT BUS FPE KILL USR1 SEGV USR2 PIPE ALRM TERM STKFLT
(hacker2002㉿kali)-[~]TTOU URG XCPU XFSZ VTALRM PROF WINCH POLL PWR SYS
$ █
(hacker2002㉿kali)-[~]
$ █
```

System Information:

Uname

```
(hacker2002㉿kali)-[~]TTOU URG XCPU XFSZ VTALRM PROF WINCH POLL PWR SYS
$ uname
Linux hacker2002㉿kali)-[~]█
$ █
```

Df

```
[hacker2002㉿kali)-[~]
$ df
Filesystem      1K-blocks    Used Available Use% Mounted on
udev            1940460      0   1940460  0% /dev
tmpfs           401632     1200   400432  1% /run
/dev/vda2       29285264 11201072 16571232 41% /
tmpfs           2008144      0   2008144  0% /dev/shm
tmpfs           5120        0     5120  0% /run/lock
/dev/vda1       524000      160   523840  1% /boot/efi
tmpfs           401628      76   401552  1% /run/user/1000

[hacker2002㉿kali)-[~]
$ 
```

Free

```
[hacker2002㉿kali)-[~]
$ free
              total        used        free      shared  buff/cache   available
Mem:       4016292       736768      2961408       33572      501780       3279
Swap:      999420          0      999420

[hacker2002㉿kali)-[~]
$ 
```

Uptime

```
[hacker2002㉿kali)-[~]
$ uptime
13:56:15 up 25 min,  1 user,  load average: 0.12, 0.09, 0.02

[hacker2002㉿kali)-[~]
$ 
```

Who

```
[hacker2002㉿kali)-[~]
$ who
hacker2002  tty7          2023-05-28 13:31 (:0)
```

```
[hacker2002㉿kali)-[~]
$ █
```

W

```
[hacker2002㉿kali)-[~]
$ w
13:57:06 up 25 min, 1 user, load average: 0.05, 0.07, 0.02
USER     TTY      FROM          LOGIN@    IDLE   JCPU   PCPU WHAT
hacker20  tty7      :0          13:31    25:54  23.60s  0.18s xfce4-sessio
```

```
[hacker2002㉿kali)-[~]
$ █
```

Networking:

Ifconfig

```
(hacker2002㉿kali)-[~]
$ ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
     inet 192.168.64.2 netmask 255.255.255.0 broadcast 192.168.64.255
            inet6 fd73:fde2:2ce4:55bf:d066:b0ff:fef0:88d3 prefixlen 64 scopeid 0x0<global>
                  inet6 fe80::d066:b0ff:fef0:88d3 prefixlen 64 scopeid 0x20<link>
      ether d2:66:b0:f0:88:d3 txqueuelen 1000 (Ethernet)
      RX packets 41 bytes 4972 (4.8 KiB)
      RX errors 0 dropped 0 overruns 0 frame 0
      TX packets 30 bytes 4515 (4.4 KiB)
      TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
      inet 127.0.0.1 netmask 255.0.0.0
      inet6 ::1 prefixlen 128 scopeid 0x10<host>
      loop txqueuelen 1000 (Local Loopback)
      RX packets 4 bytes 240 (240.0 B)
      RX errors 0 dropped 0 overruns 0 frame 0
      TX packets 4 bytes 240 (240.0 B)
      TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

Ping

```
[hacker2002㉿kali)-[~] 168524 11616 8492 S 0.0 0.3 0:00.36
└─$ ping vtop.vit.ac.in
PING vtop.vit.ac.in (136.233.9.22) 56(84) bytes of data.
64 bytes from 136.233.9.22 (136.233.9.22): icmp_seq=1 ttl=51 time=57.7 ms
64 bytes from 136.233.9.22 (136.233.9.22): icmp_seq=2 ttl=51 time=57.9 ms
64 bytes from 136.233.9.22 (136.233.9.22): icmp_seq=3 ttl=51 time=68.4 ms
64 bytes from 136.233.9.22 (136.233.9.22): icmp_seq=4 ttl=51 time=60.8 ms
64 bytes from 136.233.9.22 (136.233.9.22): icmp_seq=5 ttl=51 time=71.3 ms
64 bytes from 136.233.9.22 (136.233.9.22): icmp_seq=6 ttl=51 time=57.1 ms
64 bytes from 136.233.9.22 (136.233.9.22): icmp_seq=7 ttl=51 time=58.3 ms
64 bytes from 136.233.9.22 (136.233.9.22): icmp_seq=8 ttl=51 time=57.8 ms
64 bytes from 136.233.9.22 (136.233.9.22): icmp_seq=9 ttl=51 time=62.2 ms
64 bytes from 136.233.9.22 (136.233.9.22): icmp_seq=10 ttl=51 time=66.2 ms
64 bytes from 136.233.9.22 (136.233.9.22): icmp_seq=11 ttl=51 time=66.3 ms
64 bytes from 136.233.9.22 (136.233.9.22): icmp_seq=12 ttl=51 time=66.2 ms
64 bytes from 136.233.9.22 (136.233.9.22): icmp_seq=13 ttl=51 time=69.2 ms
64 bytes from 136.233.9.22 (136.233.9.22): icmp_seq=14 ttl=51 time=61.3 ms
64 bytes from 136.233.9.22 (136.233.9.22): icmp_seq=15 ttl=51 time=66.0 ms
64 bytes from 136.233.9.22 (136.233.9.22): icmp_seq=16 ttl=51 time=58.4 ms
64 bytes from 136.233.9.22 (136.233.9.22): icmp_seq=17 ttl=51 time=66.8 ms
64 bytes from 136.233.9.22 (136.233.9.22): icmp_seq=18 ttl=51 time=67.4 ms
64 bytes from 136.233.9.22 (136.233.9.22): icmp_seq=19 ttl=51 time=59.9 ms
64 bytes from 136.233.9.22 (136.233.9.22): icmp_seq=20 ttl=51 time=67.5 ms
64 bytes from 136.233.9.22 (136.233.9.22): icmp_seq=21 ttl=51 time=66.6 ms
64 bytes from 136.233.9.22 (136.233.9.22): icmp_seq=22 ttl=51 time=66.3 ms
64 bytes from 136.233.9.22 (136.233.9.22): icmp_seq=23 ttl=51 time=66.1 ms
64 bytes from 136.233.9.22 (136.233.9.22): icmp_seq=24 ttl=51 time=60.4 ms
64 bytes from 136.233.9.22 (136.233.9.22): icmp_seq=25 ttl=51 time=61.0 ms
64 bytes from 136.233.9.22 (136.233.9.22): icmp_seq=26 ttl=51 time=58.3 ms
64 bytes from 136.233.9.22 (136.233.9.22): icmp_seq=27 ttl=51 time=66.8 ms
```

Ssh

```
[hacker2002㉿kali)-[~] 168524 11616 8492 S 0.0 0.3 0:00.36
└─$ ssh root
      20 0 0 0 0 0 S 0.0 0.0 0:00.00
usage: ssh [-46AaCfGgKkMNnqsTtVvXxYy] [-B bind_interface]
          [-b bind_address] [-c cipher_spec] [-D [bind_address:]port]
          [-E log_file] [-e escape_char] [-F configfile] [-I pkcs11]
          [-i identity_file] [-J [user@]host[:port]] [-L address]
          [-l login_name] [-m mac_spec] [-O ctl_cmd] [-o option] [-p port]
          [-Q query_option] [-R address] [-S ctl_path] [-W host:port]
          [-w local_tun[:remote_tun]] destination [command [argument ...]]
```

Scp

```
(hacker2002㉿kali)-[~]
└─$ scp
usage: scp [-346ABCOpqRrsTv] [-c cipher] [-D sftp_server_path] [-F ssh_config]
] 25 root 20 0 0 0 0 S 0.0 0.0 0:00.01
27 root 20 0 0 0 0 S 0.0 0.0 0:00.01
28 root 20 0 0 0 0 S 0.0 0.0 0:00.01
29 root 20 0 0 0 0 S 0.0 0.0 0:00.02
```

Wget

```
(hacker2002㉿kali)-[~]
└─$ wget https://vtop.vit.ac.in
--2023-05-28 14:01:49-- https://vtop.vit.ac.in/
Resolving vtop.vit.ac.in (vtop.vit.ac.in)... 136.233.9.22
Connecting to vtop.vit.ac.in (vtop.vit.ac.in)|136.233.9.22|:443... connected.
HTTP request sent, awaiting response ... 403 Forbidden
2023-05-28 14:01:49 ERROR 403: Forbidden.
25 root 20 0 0 0 0 S 0.0 0.0 0:00.01
```

System Administration:

Sudo

```
11 root 20 0 0 0 0 I 0.0 0.0 0:00.00
(hacker2002㉿kali)-[~]
└─$ sudo
usage: sudo -h | -K | -k | -V 0 0 0 I 0.0 0.0 0:00.00
usage: sudo -v [-ABkNnS] [-g group] [-h host] [-p prompt] [-u user] 0 0 0 S 0.0 0.0 0:00.14
usage: sudo -l [-ABkNnS] [-g group] [-h host] [-p prompt] [-U user] [-u
18 root 20 0 0 0 0 I 0.0 0.0 0:00.57
19 user] [command [arg ...]] 0 0 S 0.0 0.0 0:00.00
usage: sudo [-ABbEHkNnP] [-r role] [-t type] [-C num] [-D directory] [-g
20 root 20 0 0 0 0 S 0.0 0.0 0:00.02
21 group] [-h host] [-p prompt] [-R directory] [-T timeout] [-u
22 root 20 0 0 0 0 S 0.0 0.0 0:00.00
23 user] [VAR=value] [-i | -s] [command [arg ...]] 0 0 0 S 0.0 0.0 0:00.00
usage: sudo -e [-ABkNnS] [-r role] [-t type] [-C num] [-D directory] [-g
24 root 20 0 0 0 0 S 0.0 0.0 0:00.00
25 group] [-h host] [-p prompt] [-R directory] [-T timeout] [-u
26 user] file ...
27 root 20 0 0 0 0 I 0.0 0.0 0:00.00
(hacker2002㉿kali)-[~]
└─$ 29 root 20 0 0 0 0 S 0.0 0.0 0:00.00
```

apt-get

```

└──(hacker2002㉿kali)-[~] 1 user, load average: 0.12, 0.07, 0.01
$ apt-get total, 1 running, 149 sleeping, 0 stopped, 0 zombie
apt 2.5.6 (arm64) 1.8 sy, 0.0 ni, 97.3 id, 0.1 wa, 0.0 hi, 0.0 si, 0.0
Usage: apt-get [options] command.1 free, 699.7 used, 495.3 buff/cache
MiB Swap apt-get [options] install|remove pkg1 [pkg2 ...] 3222.4 avail Mem
    apt-get [options] source pkg1 [pkg2 ...]
      PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+
apt-get is a command line interface for retrieval of packages 0:27.49
and information about them from authenticated sources and 0:01.19
for installation, upgrade and removal of packages together.5 0:07.48
with their dependencies. 480096 56524 35072 S 0.7 1.4 0:01.62
14213 root 20 0 0 0 0 I 0.7 0.0 0:00.38
Most used commands:0 0 0 0 0 S 0.3 0.0 0:00.15
  update - Retrieve new lists of packages 3652 S 0.3 0.1 0:00.27
  upgrade - Perform an upgrade 16 7300 6512 S 0.3 0.2 0:01.61
  install - Install new packages (pkg is libc6 not libc6.deb) 0:00.87
  reinstall - Reinstall packages (pkg is libc6 not libc6.deb) 0:01.84
  remove - Remove packages 11708 4716 2800 R 0.3 0.1 0:01.51
  purge - Remove packages and config files 3376 S 0.3 2.5 0:01.06
  autoremove - Remove automatically all unused packages 0.3 0:00.37
  dist-upgrade - Distribution upgrade, see apt-get(8) 0 0.0 0:00.00
  dselect-upgrade - Follow dselect selections 0 I 0.0 0.0 0:00.00
  build-dep - Configure build-dependencies for source packages 0:00.00
  satisfy - Satisfy dependency strings 0 I 0.0 0.0 0:00.00
  clean - Erase downloaded archive files 0 I 0.0 0.0 0:00.00
  autoclean - Erase old downloaded archive files 0.0 0.0 0:00.00
  check - Verify that there are no broken dependencies 0.0 0:00.00
  source - Download source archives 0 0 I 0.0 0.0 0:00.00
  download - Download the binary package into the current directory 0.0
  changelog - Download and display the changelog for the given package
  15 root rt 0 0 0 S 0.0 0.0 0:00.02
See apt-get(8) for more information about the available commands.0:00.00
Configuration options and syntax is detailed in apt.conf(5). 0:00.00
Information about how to configure sources can be found in sources.list(5).0:01
Package and version choices can be expressed via apt_preferences(5).0:01
Security details are available in apt-secure(8). 0.0 0.0 0:00.00
  23 root 20 0 0 0 This APT has Super Cow Powers.0:00.00

```

Yum

```

  18 root 20 0 0 0 0 S 0.0 0.0 0:00.00
└──(hacker2002㉿kali)-[~] 0 0 0 S 0.0 0.0 0:00.02
$ yum root 20 0 0 0 0 S 0.0 0.0 0:00.01
Command 'yum' not found, did you mean:0 0 I 0.0 0.0 0:00.00
  command 'num' from deb quickcal 0 0 S 0.0 0.0 0:00.00
  command 'sum' from deb coreutils 0 0 S 0.0 0.0 0:00.02
  command 'uum' from deb freewnn-jserver 0 0 S 0.0 0.0 0:00.01
  command 'zum' from deb perforate 0 0 I 0.0 0.0 0:00.00
Try: sudo apt install <deb name> 0 0 S 0.0 0.0 0:00.00
  29 root rt 0 0 0 S 0.0 0.0 0:00.02

```

Systemctl

```
(hacker2002㉿kali)-[~] ning, 150 sleeping, 0 stopped, 0 zombie
$ systemctl us, 0.5 sy, 0.0 ni, 99.1 id, 0.0 wa, 0.0 hi, 0.0 si, 0.0
UNIT          LOAD   ACTIVE   SUB    召    USES
proc-sys-fs-binfmt misc.automount   loaded   active   ready   0.0MiB
sys-devices-pci0000:00-0000:00:01.0-virtio0-net-eth0.device >
sys-devices-pci0000:00-0000:00:03.0-sound-card0-controlC0.device >
sys-devices-pci0000:00-0000:00:06.0-virtio2-block-vda-vda1.device.81 >
sys-devices-pci0000:00-0000:00:06.0-virtio2-block-vda-vda2.device.81 >
sys-devices-pci0000:00-0000:00:06.0-virtio2-block-vda-vda3.device.89 >
sys-devices-pci0000:00-0000:00:06.0-virtio2-block-vda.device 0:00.13 >
sys-devices-pci0000:00-0000:00:07.0-virtio3-virtio\x2dports-vport3p1.devic>
sys-devices-pci0000:00-0000:00:07.0-virtio3-virtio\x2dports-vport3p2.devic>
sys-devices-platform-ARMH0011:00-tty-ttyAMA0.device 0 0.3 0:00.37 >
sys-devices-platform-serial8250-tty-ttyS0.device 0.0 0.0 0:00.00 >
sys-devices-platform-serial8250-tty-ttyS1.device 0.0 0.0 0:00.00 >
sys-devices-platform-serial8250-tty-ttyS2.device 0.0 0.0 0:00.00 >
sys-devices-platform-serial8250-tty-ttyS3.device 0.0 0.0 0:00.00 >
sys-devices-virtual-misc-rfkill.device 0 I 0.0 0.0 0:00.00 >
sys-module-configfs.device 0 0 0 I 0.0 0.0 0:00.00 >
sys-module-fuse.device 0 0 0 I 0.0 0.0 0:00.00 >
sys-subsystem-net-devices-eth0.device 0 I 0.0 0.0 0:00.00 >
-.mount 20 0 0 0 I 0.0 0.0 0:00.00 >
boot-efi.mount 20 0 0 0 S 0.0 0.0 0:00.16 >
dev-hugepages.mount 0 0 0 0 I 0.0 0.0 0:00.63 >
dev-mqueue.mount 0 0 0 0 S 0.0 0.0 0:00.02 >
proc-sys-fs-binfmt_misc.mount 0 0 0 S 0.0 0.0 0:00.00 >
run-credentials-systemd\x2dtmpfiles\x2dsetup.service.mount 0.0 0.0 0:00.00 >
run-credentials-systemd\x2dtmpfiles\x2dsetup\x2ddev.service.mount 0.0 0:00.01 >
run-credentials-systemd\x2dtmpfiles\x2dsetup\x2ddev\x2ddev.service.mount 0.0 0:00.00 >
run-rpc_pipefs.mount 0 0 0 S 0.0 0.0 0:00.00 >
run-user-1000-gvfs.mount 0 0 0 S 0.0 0.0 0:00.02 >
run-user-1000.mount 0 0 0 S 0.0 0.0 0:00.01 >
sys-fs-fuse-connections.mount 0 0 0 I 0.0 0.0 0:00.00 >
sys-kernel-config.mount 0 0 0 S 0.0 0.0 0:00.00 >
sys-kernel-debug.mount 0 0 0 S 0.0 0.0 0:00.02 >
sys-kernel-tracing.mount 0 0 0 S 0.0 0.0 0:00.01 >
systemd-ask-password-plymouth.path 0 0 I 0.0 0.0 0:00.00 >
systemd-ask-password-wall.path 0 0 S 0.0 0.0 0:00.00 >
```

Crontab

```
(hacker2002㉿kali)-[~]
└─$ crontab
```

Useradd

```
(hacker2002㉿kali)-[~] Exploit-DB Google Hacking DB OffSec
$ useradd
Usage: useradd [options] LOGIN
      useradd -D
      useradd -D [options]

Options:
  --badname          do not check for bad names
  -b, --base-dir BASE_DIR    base directory for the home directory of the
                             new account
  --btrfs-subvolume-home   use BTRFS subvolume for home directory
  -c, --comment COMMENT   GECOS field of the new account
  -d, --home-dir HOME_DIR  home directory of the new account
  -D, --defaults          print or change default useradd configuration
  -e, --expiredate EXPIRE_DATE expiration date of the new account
  -f, --inactive INACTIVE  password inactivity period of the new account
  -F, --add-subids-for-system
                           add entries to sub[ud]id even when adding a s
                           ystem user
  -g, --gid GROUP         name or ID of the primary group of the new
                           account
  -G, --groups GROUPS    list of supplementary groups of the new
                           account
  -h, --help              display this help message and exit
  -k, --skel SKEL_DIR     use this alternative skeleton directory
  -K, --key KEY=VALUE     override /etc/login.defs defaults
  -l, --no-log-init       do not add the user to the lastlog and
                           faillog databases
  -m, --create-home       create the user's home directory
  -M, --no-create-home    do not create the user's home directory
  -N, --no-user-group    do not create a group with the same name as
                           the user
  -o, --non-unique        allow to create users with duplicate
                           (non-unique) UID
  -p, --password PASSWORD encrypted password of the new account
  -r, --system            create a system account
  -R, --root CHROOT_DIR   directory to chroot into
  -P, --prefix PREFIX_DIR files prefix directory where are located the /etc/*
  -s, --shell SHELL        login shell of the new account
```

passwd

```
└─(hacker2002㉿kali)-[~]
└─$ passwd
Changing password for hacker2002.
Current password:
passwd: Authentication token manipulation error
passwd: password unchanged
```

```
└─(hacker2002㉿kali)-[~]
└─$ █
```