

UNIVERSIDAD INDUSTRIAL DE SANTANDER

linux terminal manual

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echo

Its functionality is to print.

```
C:\Users\Yazz\OneDrive\Documentos\consola

\( \lambda \) echo hola mundo
hola mundo

C:\Users\Yazz\OneDrive\Documentos\consola
\( \lambda \)
```

pwd

It means print working directory, its function as its name indicates is prints the current working directory path

```
C:\Users\Yazz\OneDrive\Documentos\consola

\( \lambda \) pwd
C:\Users\Yazz\OneDrive\Documentos\consola

C:\Users\Yazz\OneDrive\Documentos\consola
\( \) \|
```

ls

Its functionality is to show the files of the directory in which it is located

```
C:\Users\Yazz\OneDrive\Documentos\consola

\lambda ls
bin/ Cmder.exe* cmder.zip config/ icons/ LICENSE opt/ vendor/ 'Version 1.3.17.1082'
```

Ls It also has the following functions:

1. ls - a: Allows you to view hidden files.

```
C:\Users\Yazz\OneDrive\Documentos\consola

\lambda ls -a

./ ../ bin/ Cmder.exe* cmder.zip config/ icons/ LICENSE opt/ vendor/ 'Version 1.3.17.1082'

Hidden files
```

2. ls - l Allows listing files as follows: file permissions, link number, owner name, group name, size in bytes, a timestamp, and file name.

With respect to the permission of the file we have to take into account the following.

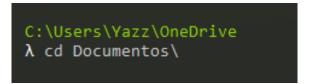
- $drwxr xr x \mapsto \text{can execute}$
- $rwxr xr x \mapsto$ are executable
- $-rw r r \longrightarrow \text{read only}$
- 3. ls la:Combine the functions of ls l and ls a

- 4. ls t Sort the files in chronological order.
- 5. ls r Sort the files in alphabetical order.

cd

Its meaning is Change Directory, its main function is to change directory. The syntax for the cd command is as follows:

cd directory



The current working directory is represented by a single dot (.). Two dots (..), one after the other, represent the parent directory or the directory immediately above the current one.

cd-y cd .

To change back to the previous working directory

```
C:\Users\Yazz\OneDrive\Documentos
λ cd -
C:\Users\Yazz\OneDrive
λ pwd
C:\Users\Yazz\OneDrive
```

touch

Its function is to create files directly in the console

```
C:\Users\Yazz\OneDrive\Documentos
\(\lambda\) cd proof\\
C:\Users\Yazz\OneDrive\Documentos\proof\\(\lambda\) touch archivo.txt

Name of the new file
C:\Users\Yazz\OneDrive\Documentos\proof\\(\lambda\) ls
archivo.txt
```

We can create multiple files at once

```
C:\Users\Yazz\OneDrive\Documentos\proof
\( \) touch hello.txt hello1.txt hello2.txt

C:\Users\Yazz\OneDrive\Documentos\proof
\( \) ls
archivo.txt hello.txt hello1.txt hello2.txt
```

■ cp

Its function is to copy files

```
C:\Users\Yazz\OneDrive\Documentos\proof1

\( \lambda \) pwd

C:\Users\Yazz\OneDrive\Documentos\proof1

\( \lambda \) ls
\( \lambda \) ls
\( \lambda \) cp C:\\Users\Yazz\OneDrive\Documentos\proof1
\( \lambda \) cp C:\\Users\Yazz\OneDrive\Documentos\proof1
\( \lambda \) ls
\( \la
```

rm

Allows to delete and delete files such as folders

```
blanca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin$ ls
                                         conversor.py
                                         ejecutable
archivos1
                                                       myfile
                                                       otro
blanca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin$ rm
                                                         folder/
                                                                 indicates folder
blanca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin$ ls
                                                       myfile
                                         conversor.py
                                         ejecutable
                                                       otro
olanca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin$ 🗌
blanca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin/archivos1$ ls
                       ejecutable hola1.txt hola3.txt hola5.txt hola7.txt
                       hola10.txt hola2.txt hola4.txt hola6.txt
                                                                      hola8.txt
blanca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin/archivos1$ rm *.txt
blanca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin/archivos1$ ls
                                                                     File name
                                           ejecutable
                                                          Select all files with
                                                          the given extension
```

mv

Its function is to move files or folders from one location to another on the same computer.

```
blanca@blanca-HP-Stream-Laptop-14-ax0XX:~/Descargas$ mv *.pdf /home/blanca/repositorio/
blanca@blanca-HP-Stream-Laptop-14-ax0XX:~/Descargas$ cd .. Direction where it moves

/home/blanca

/home/blanca

blanca@blanca-HP-Stream-Laptop-14-ax0XX:~$ cd repositorio

blanca@blanca-HP-Stream-Laptop-14-ax0XX:~/repositorio$ ls

'Diapositivas DATA SCIENCE IN TOPOLOGY.pdf'

Ensayo_II_de_modelado_la_ciencia_reproducible.pdf
```

cat

Its function is to display the content of the file

```
F:\plazis\Curso2 basico depython\ejercicios
λ cat condicionales.py
def conversor(a,valor_dolar):
    b = input("¿cuantos pesos "+ a +"tiene?:")
    b = float(b)
    valor_dolar = int(valor_dolar)
    dolares = b/valor dolar
    dolares = round(dolares, 2)
    dolares = str(dolares)
    print("Tienes $" + dolares + " dolares")
menu = input("""
Elige la opcion
1 pesos colombianos
2 pesos argentinos
3 pesos mexicanos
print(menu)
menu = int(menu)
if menu == 1:
    conversor("colombia", 3400)
elif menu == 2:
       conversor("argentina",24)
elif menu == 3:
             conversor("mexico", 70)
    print("no es la opcion correcta ")
```

pico

Pico is a file editor used on UNIX systems.

- Ctrl + o save the file you are working on
- Ctrl + x to get out of pico
- less

Its function is to open a file directly in the console but it does not show everything

```
def conversor(a,valor_dolar):
    b = input("¿cuantos pesos "+ a +"tiene?:")
b = float(b)
    valor_dolar = int(valor_dolar)
dolares = b/valor_dolar
dolares = round(dolares, 2)
    dolares = str(dolares)
    print("Tienes $" + dolares + " dolares")
menu = input("""
Elige la opcion
1 pesos colombianos
2 pesos argentinos
3 pesos mexicanos
print(menu)
menu = int(menu)
if menu == 1:
    conversor("colombia", 3400)
        conversor("argentina",24)
elif menu == 3:
             conversor("mexico", 70)
    print("no es la opcion correcta ")
condicionales.py (END)
```

mkdir

Its function is to create folders

```
F:\plazis\Curso2 basico depython\ejercicios

\[ \lambda \ 15 \]

bucles.py Captura.PNG condicionales.py conversor.py primos.PNG Untitled-1.html

F:\plazis\Curso2 basico depython\ejercicios
\[ \lambda \ \text{mkdir new_folder} \]

F:\plazis\Curso2 basico depython\ejercicios
\[ \lambda \ 15 \]

bucles.py Captura.PNG condicionales.py conversor.py new_folder/ primos.PNG Untitled-1.html

F:\plazis\Curso2 basico depython\ejercicios
\[ \lambda \ \la
```

alias

Gives a name to a certain instruction

```
C:\Users\Yazz\OneDrive\Documentos\tecnicas de conteo
λ alias yc="cp C:\\Users\\Yazz\\OneDrive\\Documentos\\proof\\hello1.txt .\"
```

zip

Allows you to compress a file or folder

```
lanca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin$ ls
                                                                                        Name of the file
jecutable hola10.txt hola2.txt hola4.txt hola6.txt hola8.txt
tles.ztp hola1.txt hola3.txt hola5.txt hola7.txt myfile
                                                                                        to compress
lanca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin$_pico_hola4.txt
lanca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin$ zip comprimido.zip hola4.txt
                                                                                          compressed file
adding: hola4.txt (stored 0%)
     @blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin$ ls
                                                                                          name
                             hola1.txt hola3.txt hola5.txt hola7.txt myfile
                hola10.txt hola2.txt hola4.txt hola6.txt hola8.txt
.anca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin$
vlanca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin$ zip  -r comoprimido1.zip  archivos
 adding: archivos/ (stored 0%)
adding: archivos/hola3.txt (stored 0%)
adding: archivos/hola2.txt (stored 0%)
 adding: archivos/hola10.txt (stored 0%)
                                                            Indicates folder
 adding: archivos/hola8.txt (stored 0%)
 adding: archivos/hola1.txt (stored 0%)
 adding: archivos/hola7.txt (stored 0%)
 adding: archivos/hola5.txt (stored 0%)
 adding: archivos/hola6.txt (stored 0%)
 adding: archivos/hola4.txt (stored 0%)
 anca@blanca-HP-Stream-Laptop-14-ax0XX:~
```

unzip

Its function is to decompress zip point files

```
blanca@blanca-UP-Stream-Laptop-14-ax0XX:-/yaznin/archivosi$ unzip conoprinidol.zip
Archive: comportuidol.zip
creating: archivos/hola3.txt
extracting: archivos/hola6.txt
```

tar

Its function is to compress files

```
-Stream-Laptop-14-ax0XX:~/yazmin$ tar
                                                             zcvf_comprimito_tar.gz ./archivos
/archivos/
/archivos/hola3.txt
                                                                                                        File to compressed
                                                        z compress
/archivos/hola2.txt
                                                        c createa file
./archivos/hola10.txt
./archivos/hola8.txt
                                                                                              Compressed File name
                                                        v print the compression data
/archivos/hola1.txt
/archivos/hola7.txt
                                                        f file name
/archivos/hola5.txt
/archivos/hola6.txt
/archivos/hola4.txt
lanca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin$ ls
                                                      hola10.txt hola2.txt hola4.txt hola6.txt hola8.txt otro
                                                       hola1.txt
                                                                    hola3.txt
                                                                                hola5.txt hola7.txt myfile
```

Create a bz2 file

```
P-Stream-Laptop-14-ax0XX:~/yazmin$ tar jcvf
/archivos/
/archivos/hola3.txt
                                                                                    File to compressed
                                                         Compressed File name
/archivos/hola2.txt
/archivos/hola10.txt
/archivos/hola8.txt
/archivos/hola1.txt
/archivos/hola7.txt
/archivos/hola5.txt
/archivos/hola6.txt
/archivos/hola4.txt
lanca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin$ ls
                                                                     hola1.txt hola3.txt hola5.txt hola7.txt myfile
                                   ejecutable
                                                         hola10.txt hola2.txt hola4.txt hola6.txt hola8.txt otro
```

chmod

Convert a file to executable

```
blanca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin/archivos1$ pico ejecutable

The file is created and edited blanca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin/archivos1$ ls

comprintto_tar.gz comprimo_tar_bz2.bz2 ejecutable

blanca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin/archivos1$ chmod +x ejecutable

blanca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin/archivos1$ ./ejecutable

blanca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin/archivos1$ ls

comprinto_tar.gz ejecutable hola1.txt hola3.txt hola5.txt hola7.txt

comprino_tar_bz2.bz2 hola10.txt hola2.txt hola4.txt hola6.txt hola8.txt

The folder after execution
```

history

Allows you to see all the history of the commands executed in the terminal

```
planca@blanca-HP-Stream-Laptop-14-ax0XX:~/repositorio$ history
   1 pwd
     cd blanca
     ls
     cd Documentos/
     mkdir ejemplo
     ls}
     mkdir -p carpeta1/carpeta2
      ls
     touch file{1,2,3}.txt
     touch file{1,2..10}.txt
     touch file{1,2,...10}.txt
  14
  15
      touch file{1,2,...,10}.txt
  16
     touch file{1...10}.txt
  18
  20
     rm *.txt
  21
     ls
     pwd
```

• git config –global name.

Git configuration to username and email

```
blanca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin$ git config --global name.yazmin blanca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin$ git config --global name.yasminrubiela2805@gmail.com blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin$ git config --global name.yasminrubiela2805@gmail.com
```

• git init

Create a git repository

```
blanca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin$ git init
Inicializado repositorio Git vacio en /home/blanca/yazmin/.git/
blanca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin$ git status
```

git status

Allows to see the state in git

```
blanca@blanca-HP-Stream-Laptop-14-axXXX:-/yazmin$ glt status
En la rama master

No hay commits todavia

Archivos sin seguiniento:
(usa "glt add <archivo>..." para incluirlo a lo que se será confirmado)
archivos/
archivos/
comprimido.zip
comprimido.zip
comprimido.tar.gz
comprime_tar_bzz_bzz
conversor.py
ejecutable
files.zip
holai.txt
h
```

• git add

Adds new or changed files in your working directory to the Git stagin whit all se agregan todos

```
blanca@blanca Rhythmbox Laptop-14-ax0XX:~/yazmin$ git add --all
```

■ git commit -m

Allows saving new versions of files with a message after the m

```
blanca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin$ git commit -m"primercambio"
[master (commit-raiz) ab07857] primercambio
39 files changed, 39 insertions(+)
create mode 100644 archivos/hola1.txt
create mode 100644 archivos/hola2.txt
create mode 100644 archivos/hola3.txt
create mode 100644 archivos/hola3.txt
create mode 100644 archivos/hola4.txt
create mode 100644 archivos/hola5.txt
create mode 100644 archivos/hola6.txt
create mode 100644 archivos/hola7.txt
create mode 100644 archivos/hola8.txt
create mode 100644 archivos/loa8.txt
create mode 100644 archivos1/comprimito_tar.gz
create mode 100644 archivos1/comprimito_tar.gz
create mode 100654 archivos1/comprimo_tar_bz2.bz2
create mode 100755 archivos1/ejecutable
```

• git branch

Lets see the branches that there are

```
blanca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin$ git branch
correcion1
* master
```

git branch [branch-name]

Allows you to create branches

```
blanca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin$ git branch correcion2
blanca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin$ git branch
correcion1
correcion2
* master
```

• git branch -d [branch-name]

Lets delete the branch after the d

```
Dlanca@htanca-HP-Stream-Laptop-14-axdxx:-/yazmin$ git branch
correcction2

nath
ramac

Dlanca@htanca-HP-Stream-Laptop-14-axdxx:-/yazmin$ git branch -d correcction1

Eliminada la rama correcction1 (era 674efcb).

Dlanca@blanca-HP-Stream-Laptop-14-axdxx:-/yazmin$ git branch
correcction2

nath
ramac
nath
```

• git checkout

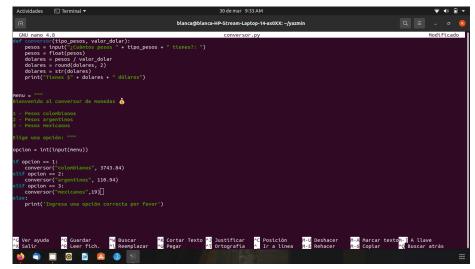
Allows you to switch between branches.

```
blanca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin$ git checkout master
Cambiado a rama 'master'
```

• git merge

Incorporate changes from other branches

Branch changes correccion1



file in corrección1

file in master

```
profercombus
blanca@blanca-HP-Stream-Laptop-14-ax0XX:-/yazmin$ git checkout master
Camblado a rana 'master'
blanca@blanca-HP-Stream-Laptop-14-ax0XX:-/yazmin$ git merge correccion1
Actualizando ab07857..674efcb
Fast-forward
```

Performing the merge

```
def conversor(tipo_pesos, valor_dolar):
    pesos = input("¿cuántos pesos " + tipo_pesos + " tienes?: ")
    pesos = float(pesos)
    dolares = pesos / valor_dolar
    dolares = round(dolares, 2)
    dolares = str(dolares)
    print("Tienes $" + dolares + " dólares")

menu = """

Bienventdo al conversor de monedas

1 - Pesos colombianos
2 - Pesos argentinos
3 - Pesos mexicanos

Elige una opción: """

opcion = int(input(menu))

if opcion == 1:
    conversor("colombianos", 3743.84)
    elif opcion == 2:
        conversor("argentinos", 110.94)

elif opcion = 3:
        conversor("mexicanos",19)[]

else:
    print('Ingresa una opción correcta por favor')
```

File in master after merge

• git log

Show commit logs, git log -r allows to see all commits with description

```
blanca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin$ git log -r
commit 674efcbd5b1e67f621470ac1816688dcfd318c49 (HEAD -> correccion1)
Author: yazmin <yasminrubiela2805@gmail.com>
Date: Wed Mar 30 09:35:16 2022 -0500

actualización del valor

commit ab078574efea9e09e3010a228739de7f68af4765 (master, correccion2)
Author: yazmin <yasminrubiela2805@gmail.com>
Date: Wed Mar 30 09:01:01 2022 -0500

primercambio
blanca@blanca-HP-Stream-Laptop-14-ax0XX:~/yazmin$ git checkout master
Cambiado a rama 'master'
```

• git push

It is used to upload content from the local repository to a remote repository.

```
blanca@blanca-HP-Stream-Laptop-14-ax0XX:~/repositorio$ git remote add origin https://github.com/Yazmin246/curso_modelado_matematico.g

tfatal: remoto origin ya existe.

blanca@blanca-HP-Stream-Laptop-14-ax0XX:~/repositorio$ git branch -M main — Change branch from master to main

blanca@blanca-HP-Stream-Laptop-14-ax0XX:~/repositorio$ git push -u origin main

Enumerando objetos: 5, listo.

Contando objetos: 100% (5/5), listo.

Compresión delta usando hasta 2 hilos

Comprimiendo objetos: 100% (5/5), listo.

Escribiendo objetos: 100% (5/5), 3.56 MiB | 2.52 MiB/s, listo.

Total 5 (delta 0), reusado 0 (delta 0)

To https://github.com/Yazmin246/curso_modelado_matematico.git

* [new branch] main -> main

Rama 'main' configurada para hacer seguimiento a la rama remota 'main' de 'origin'.
```

• git pull

Its function to extract and download information from a repository.

```
blanca@blanca-HP-Stream-Laptop-14-ax0XX:~/repositorio$ git pull
Ya está actualizado.
```