

Como usar pythonanywhere.com con git y python

Daniel Walther Berns

DIE - Facultad de Ingeniería - UNPSJB

- 1 Se supone que la cuenta de usuario en `pythonanywhere.com` ya fue creada.
- 2 Una vez que nos hemos conectado (logueado) al sitio, debemos estar viendo una pantalla llamada dashboard.

Pantalla dashboard

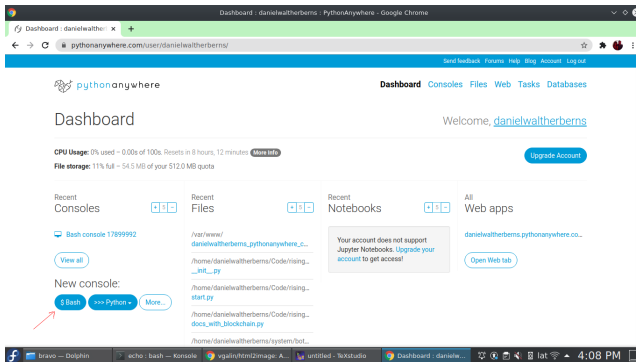
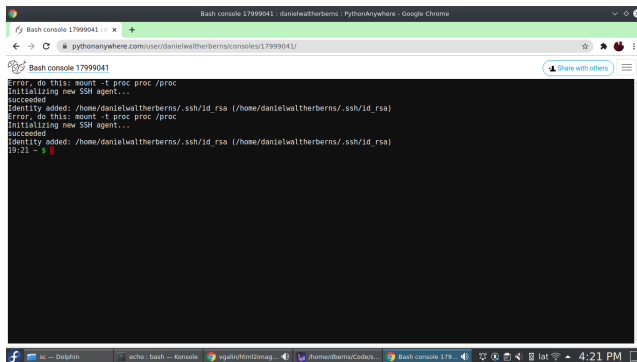


Figura: Dashboard: abajo a la izquierda aparece el botón para crear una consola con Bash.

Consola con bash



The screenshot shows a web browser window with the title "Bash console 17999041 : danielwaltherberns : PythonAnywhere - Google Chrome". The address bar shows the URL "pythonanywhere.com/user/danielwaltherberns/consols/17999041/". The main content area displays a terminal window titled "Bash console 17999041" with the following text:

```
Error, do this: mount -t proc proc /proc
Initializing new SSH agent...
succeeded
Identity added: /home/danielwaltherberns/.ssh/id_rsa (/home/danielwaltherberns/.ssh/id_rsa)
Error, do this: mount -t proc proc /proc
Initializing new SSH agent...
succeeded
Identity added: /home/danielwaltherberns/.ssh/id_rsa (/home/danielwaltherberns/.ssh/id_rsa)
19:21 ~ $
```

The terminal window is part of a desktop environment shown in the browser. The taskbar at the bottom of the browser window includes icons for a file manager, terminal, and other applications, along with the system clock showing 4:21 PM.

Figura: Consola para enviar comandos a una máquina virtual con linux.

Comandos para trabajar en la consola

- ❶ `ls`
para ver los archivos en el directorio actual.
- ❷ `pwd`
para ver el path o camino del directorio actual.
- ❸ `mkdir xyz`
para crear un directorio de nombre xyz.
- ❹ `cd xyz`
para moverse al directorio de nombre xyz.

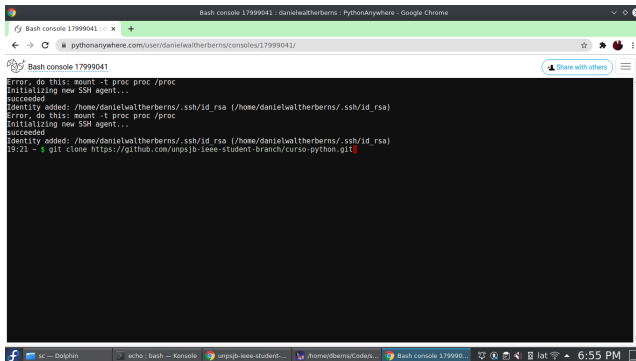
Como trabajar con git

- 1 Escribimos programas en nuestras computadoras, con un entorno de programación cómodo y amigable.
- 2 "Depositamos" los programas que escribimos en un repositorio en Github.
- 3 Empleamos los comandos en la consola

```
git clone https://github.com/usuario/repositorio.git  
y  
git pull
```

para transferir los programas a pythonanywhere.com.

Ejemplo git clone



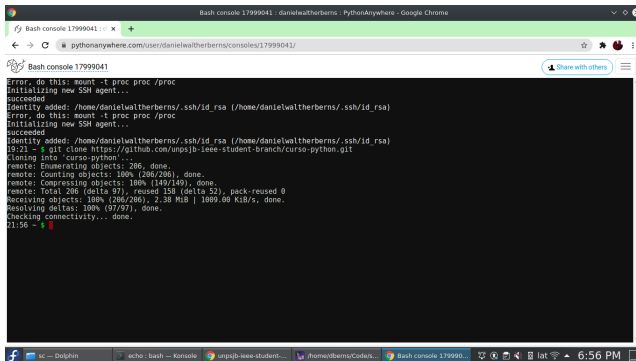
The screenshot shows a web browser window with a terminal interface. The terminal title is "Bash console 17999041". The address bar shows the URL "pythonanywhere.com/user/danielwaltherberns/consolas/17999041/". The terminal output shows the following commands and their results:

```
Error, do this: mount -t proc proc /proc
Initializing new SSH agent...
succeeded
Identity added: /home/danielwaltherberns/.ssh/id_rsa (/home/danielwaltherberns/.ssh/id_rsa)
Error, do this: mount -t proc proc /proc
Initializing new SSH agent...
succeeded
Identity added: /home/danielwaltherberns/.ssh/id_rsa (/home/danielwaltherberns/.ssh/id_rsa)
19:21 ~ $ git clone https://github.com/unpsjb-ieee-student-branch/curso-python.git
```

The terminal window is part of a desktop environment. The taskbar at the bottom shows several open applications: "sc - Dolphin", "echo : bash - Konsole", "unpsjb-ieee-student-...", "fhome/vberns/Codas...", and "Bash console 17999041". The system clock in the bottom right corner indicates the time is 6:55 PM.

Figura: Antes de ejecutar git clone

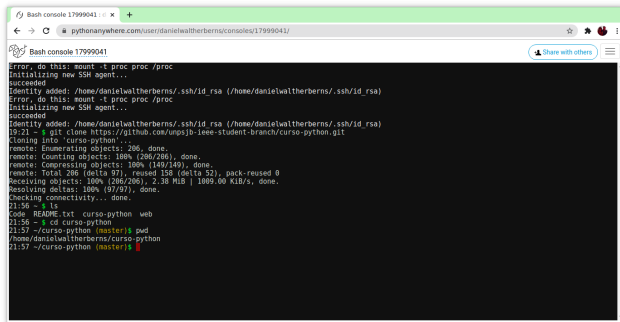
Ejemplo git clone



```
Bash console 17999041 : danielwaltherberns : PythonAnywhere - Google Chrome
pythonanywhere.com/user/danielwaltherberns/consols/17999041/
Bash console 17999041
Error, do this: mount -t proc proc /proc
Initializing new SSH agent...
succeeded
Identity added: /home/danielwaltherberns/.ssh/id_rsa (/home/danielwaltherberns/.ssh/id_rsa)
Error, do this: mount -t proc proc /proc
Initializing new SSH agent...
succeeded
Identity added: /home/danielwaltherberns/.ssh/id_rsa (/home/danielwaltherberns/.ssh/id_rsa)
19:21 ~ $ git clone https://github.com/unpsjb-ieee-student-branch/curso-python.git
Cloning into 'curso-python'...
remote: Enumerating objects: 206, done.
remote: Counting objects: 100% (206/206), done.
remote: Compressing objects: 100% (149/149), done.
remote: Total 206 (delta 97), reused 158 (delta 52), pack-reused 0
Receiving objects: 100% (206/206), 2.38 MiB | 1099.00 KiB/s, done.
Resolving deltas: 100% (97/97), done.
Checking connectivity... done.
17:56 ~ $
```

Figura: Resultado de ejecutar git clone

Ejemplo cd y pwd

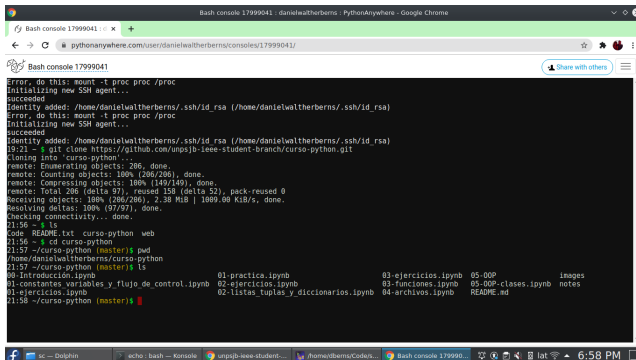


The screenshot shows a web browser window with a terminal interface. The browser's address bar shows the URL `pythonanywhere.com/user/danielwaltherberns/consoles/17999041/`. The terminal window has a title bar that says "Bash console 17999041". The terminal output shows the following sequence of commands and results:

```
Error, do this: mount -t proc proc /proc
Initializing new SSH agent...
succeeded
Identity added: /home/danielwaltherberns/.ssh/id_rsa (/home/danielwaltherberns/.ssh/id_rsa)
Error, do this: mount -t proc proc /proc
Initializing new SSH agent...
succeeded
Identity added: /home/danielwaltherberns/.ssh/id_rsa (/home/danielwaltherberns/.ssh/id_rsa)
19:21 - $ git clone https://github.com/unpsjb-ieee-student-branch/curso-python.git
Cloning into 'curso-python'...
remote: Enumerating objects: 206, done.
remote: Counting objects: 100% (206/206), done.
remote: Compressing objects: 100% (149/149), done.
remote: Total 206 (delta 97), reused 158 (delta 52), pack-reused 0
Receiving objects: 100% (206/206), 2.38 MiB | 1809.00 KiB/s, done.
Resolving deltas: 100% (97/97), done.
Checking connectivity... done.
21:56 - $ ls
Code README.txt curso-python web
21:56 - $ cd curso-python
21:57 ~/curso-python (master)$ pwd
/home/danielwaltherberns/curso-python
21:57 ~/curso-python (master)$
```

Figura: Resultado de ejecutar cd y pwd

Ejemplo ls

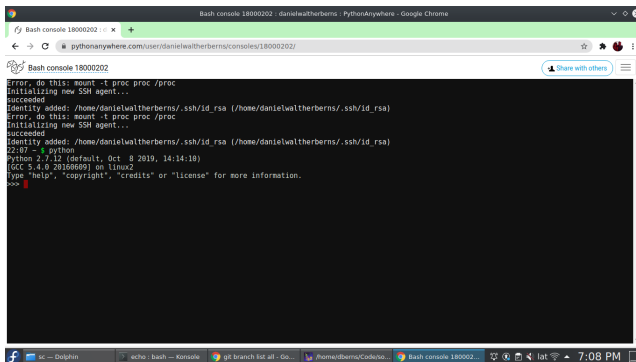


The screenshot shows a web browser window titled "Bash console 17999041 : danielwaltherberns : PythonAnywhere - Google Chrome". The address bar shows the URL "pythonanywhere.com/user/danielwaltherberns/conssoles/17999041/". The terminal window displays the following output:

```
Bash console 17999041
Error, do this: mount -t proc proc /proc
Initializing new SSH agent...
succeeded
Identity added: /home/danielwaltherberns/.ssh/id_rsa (/home/danielwaltherberns/.ssh/id_rsa)
Error, do this: mount -t proc proc /proc
Initializing new SSH agent...
succeeded
Identity added: /home/danielwaltherberns/.ssh/id_rsa (/home/danielwaltherberns/.ssh/id_rsa)
19:21 ~$ git clone https://github.com/unpsjb-ieee-student-branch/curso-python.git
Cloning into 'curso-python'...
remote: Enumerating objects: 206, done.
remote: Counting objects: 100% (206/206), done.
remote: Compressing objects: 100% (149/149), done.
remote: Total 206 (delta 97), reused 158 (delta 52), pack-reused 0
Receiving objects: 100% (206/206), 2.38 MiB | 1099.00 KiB/s, done.
Resolving deltas: 100% (97/97), done.
Checking connectivity... done.
21:56 ~$ ls
Code README.txt curso-python web
21:56 ~$ cd curso-python
21:57 ~/curso-python (master)$ pwd
/home/danielwaltherberns/curso-python
21:57 ~/curso-python (master)$ ls
00-Introducción.ipynb          01-practica.ipynb          03-ejercicios.ipynb      05-00P          images
01-constantes variables y flujo de control.ipynb  02-ejercicios.ipynb        03-funciones.ipynb      05-00P-clases.ipynb  notes
01-ejercicios.ipynb          02-listas_tuplas_y_diccionarios.ipynb  04-archivos.ipynb      README.md
21:58 ~/curso-python (master)$
```

Figura: Resultado de ejecutar cd y pwd

Como ejecutar python en la consola de pythonanywhere

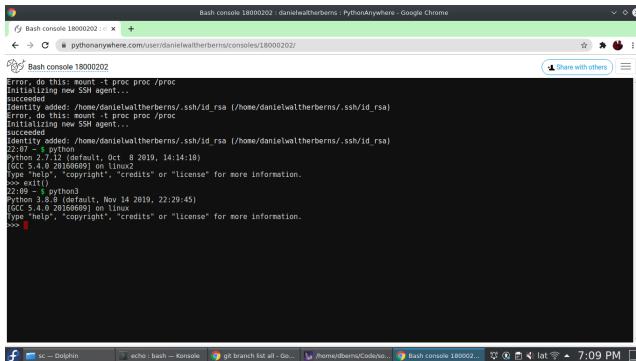


The screenshot shows a web browser window with the address bar displaying 'pythonanywhere.com/user/danielwaltherberns/consols/18000202/'. The main content area is a terminal window titled 'Bash console 18000202'. The terminal output shows the following sequence of events: an error about mounting /proc, successful SSH agent initialization, adding an SSH identity, another error about mounting /proc, and a second successful SSH agent initialization. Finally, the user enters the command 'python', which results in the Python 2.7.12 interpreter starting. The prompt changes from '\$' to 'Python', and the user is shown the version and platform information. The prompt then changes to '>>>', indicating the interactive shell is ready.

```
Bash console 18000202
Error, do this: mount -t proc proc /proc
Initializing new SSH agent...
succeeded
Identity added: /home/danielwaltherberns/.ssh/id_rsa (/home/danielwaltherberns/.ssh/id_rsa)
Error, do this: mount -t proc proc /proc
Initializing new SSH agent...
succeeded
Identity added: /home/danielwaltherberns/.ssh/id_rsa (/home/danielwaltherberns/.ssh/id_rsa)
22:07 ~ $ python
Python 2.7.12 (default, Oct 8 2019, 14:14:10)
(GCC 5.4.0 20160609) on linux2
Type "help", "copyright", "credits" or "license" for more information.
>>>
```

Figura: Python 2: este NO!

Como ejecutar python en la consola de pythonanywhere



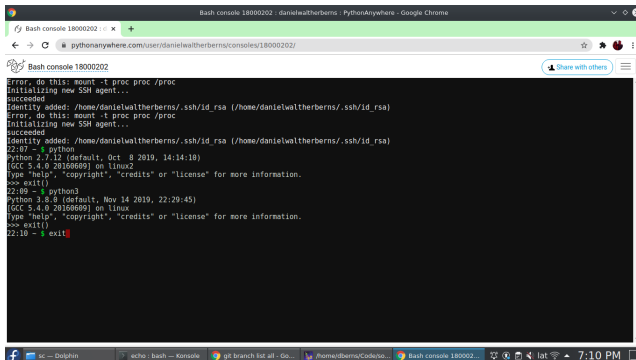
The screenshot shows a web browser window with the address bar displaying 'pythonanywhere.com/user/danielwaltherberns/consols/18000202/'. The main content area is a terminal window titled 'Bash console 18000202'. The terminal output shows the following sequence of commands and responses:

```
Error, do this: mount -t proc proc /proc
Initializing new SSH agent...
succeeded
Identity added: /home/danielwaltherberns/.ssh/id_rsa (/home/danielwaltherberns/.ssh/id_rsa)
Error, do this: mount -t proc proc /proc
Initializing new SSH agent...
succeeded
Identity added: /home/danielwaltherberns/.ssh/id_rsa (/home/danielwaltherberns/.ssh/id_rsa)
22:07 ~$ python
Python 2.7.12 (default, Oct 8 2019, 14:14:10)
(GCC 5.4.0 20160609) on linux2
Type "help", "copyright", "credits" or "license" for more information.
>>> exit()
22:09 ~$ python3
Python 3.8.0 (default, Nov 14 2019, 22:29:45)
(GCC 5.4.0 20160609) on linux2
Type "help", "copyright", "credits" or "license" for more information.
>>>
```

The terminal window is part of a desktop environment with a taskbar at the bottom showing various application icons and the system clock indicating 7:09 PM.

Figura: Python 3: este SI!

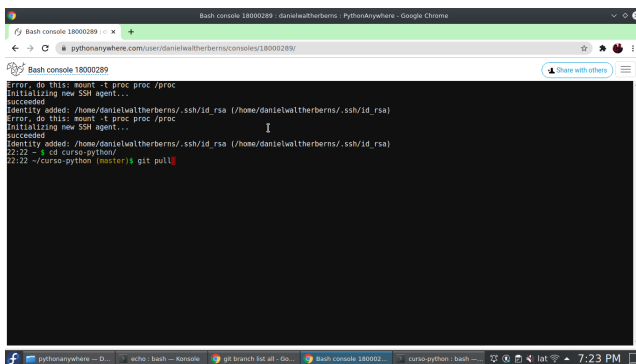
Como salir de la consola



```
Bash console 18000202 : danielwaltherberns : PythonAnywhere - Google Chrome
pythonanywhere.com/user/danielwaltherberns/consols/18000202/
Bash console 18000202
Error, do this: mount -t proc proc /proc
Initializing new SSH agent...
succeeded
Identity added: /home/danielwaltherberns/.ssh/id_rsa (/home/danielwaltherberns/.ssh/id_rsa)
Error, do this: mount -t proc proc /proc
Initializing new SSH agent...
succeeded
Identity added: /home/danielwaltherberns/.ssh/id_rsa (/home/danielwaltherberns/.ssh/id_rsa)
22:07 ~ $ python
Python 2.7.12 (default, Oct 8 2019, 14:14:10)
(GCC 5.4.0 20160609) on linux2
Type "help", "copyright", "credits" or "license" for more information.
>>> exit()
22:09 ~ $ python3
Python 3.6.9 (default, Nov 14 2019, 22:29:45)
(GCC 5.4.0 20160609) on linux
Type "help", "copyright", "credits" or "license" for more information.
>>> exit()
22:10 ~ $ exit
```

Figura: comando exit en la consola, para cerrarla.

Como actualizar un repositorio en pythonanywhere



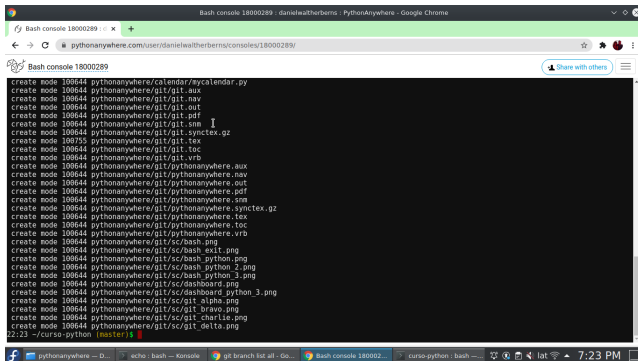
The screenshot shows a web browser window with the address bar displaying 'pythonanywhere.com/user/danielwaltherberns/consoles/18000289/'. The main content area is a terminal window titled 'Bash console 18000289'. The terminal output shows the following sequence of commands and messages:

```
Error, do this: mount -t proc proc /proc
Initializing new SSH agent...
succeeded
Identity added: /home/danielwaltherberns/.ssh/id_rsa (/home/danielwaltherberns/.ssh/id_rsa)
Error, do this: mount -t proc proc /proc
Initializing new SSH agent...
succeeded
Identity added: /home/danielwaltherberns/.ssh/id_rsa (/home/danielwaltherberns/.ssh/id_rsa)
22:22 ~ % cd curso-python/
22:22 ~/curso-python (master)$ git pull
```

The terminal window has a dark background and a cursor is visible on the line containing 'git pull'. The browser window includes standard navigation buttons and a 'Share with others' button in the top right corner of the terminal area. The bottom of the browser window shows a taskbar with several open applications: 'pythonanywhere - D...', 'echo: bash - Konsole', 'git branch list all - Go...', 'Bash console 18000289...', and 'curso-python: bash'. The system clock in the bottom right corner indicates the time is 7:23 PM.

Figura: git pull para actualizar repositorio en pythonanywhere con contenido nuevo que está en Github

Como actualizar un repositorio en pythonanywhere



The screenshot shows a web browser window with the address bar displaying 'pythonanywhere.com/user/danielwaltherberns/18000289/'. Below the browser, there is a terminal window titled 'Bash console 18000289'. The terminal output shows a list of files created in a repository, including 'calendar/eycalendar.py', 'git/git.aux', 'git/git.nav', 'git/git.out', 'git/git.pdf', 'git/git.snm', 'git/syntax.gz', 'git/text', 'git/toc', 'git/vrb', 'pythonanywhere/aux', 'pythonanywhere/nav', 'pythonanywhere/out', 'pythonanywhere/pdf', 'pythonanywhere/snm', 'pythonanywhere/syntax.gz', 'pythonanywhere/text', 'pythonanywhere/toc', 'pythonanywhere/vrb', 'sc/bash.png', 'sc/bash_exit.png', 'sc/bash_python.png', 'sc/bash_python_2.png', 'sc/bash_python_3.png', 'sc/dashboard.png', 'sc/dashboard_python_3.png', 'sc/git_alpha.png', 'sc/git_bravo.png', 'sc/git_charlie.png', 'sc/git_delta.png', and 'curso-python'. The terminal window also shows the command 'git pull' and the output '22:23 ~/curso-python [master] \$'.

```
create node 100644 pythonanywhere/calendar/eycalendar.py
create node 100644 pythonanywhere/git/git.aux
create node 100644 pythonanywhere/git/git.nav
create node 100644 pythonanywhere/git/git.out
create node 100644 pythonanywhere/git/git.pdf
create node 100644 pythonanywhere/git/git.snm
create node 100644 pythonanywhere/git/git.syntax.gz
create node 100644 pythonanywhere/git/git.text
create node 100644 pythonanywhere/git/git.toc
create node 100644 pythonanywhere/git/git.vrb
create node 100644 pythonanywhere/git/pythonanywhere.aux
create node 100644 pythonanywhere/git/pythonanywhere.nav
create node 100644 pythonanywhere/git/pythonanywhere.out
create node 100644 pythonanywhere/git/pythonanywhere.pdf
create node 100644 pythonanywhere/git/pythonanywhere.snm
create node 100644 pythonanywhere/git/pythonanywhere.syntax.gz
create node 100644 pythonanywhere/git/pythonanywhere.text
create node 100644 pythonanywhere/git/pythonanywhere.toc
create node 100644 pythonanywhere/git/pythonanywhere.vrb
create node 100644 pythonanywhere/git/sc/bash.png
create node 100644 pythonanywhere/git/sc/bash_exit.png
create node 100644 pythonanywhere/git/sc/bash_python.png
create node 100644 pythonanywhere/git/sc/bash_python_2.png
create node 100644 pythonanywhere/git/sc/bash_python_3.png
create node 100644 pythonanywhere/git/sc/dashboard.png
create node 100644 pythonanywhere/git/sc/dashboard_python_3.png
create node 100644 pythonanywhere/git/sc/git_alpha.png
create node 100644 pythonanywhere/git/sc/git_bravo.png
create node 100644 pythonanywhere/git/sc/git_charlie.png
create node 100644 pythonanywhere/git/sc/git_delta.png
22:23 ~/curso-python [master] $
```

Figura: Contenido actualizado con git pull

Ejercicios en la consola bash

❶ Ejecute

```
git clone https://github.com/unpsjb-ieee-student-branch/cu  
o
```

```
git pull
```

lo que sea necesario.

❷ cd curso-python/pythonanywhere/brainz

❸ python3 brainz.py

❹ Comente en el foro que es lo que hace el programa brainz.py. Explique sus instrucciones y lógica. Para ver y editar brainz.py puede usar el comando

```
nano brainz.py
```



```

File Edit View Bookmarks Settings Help
GNU nano 4.9.3 brainz.py
import random

def op_sum(a, b):
    print(f'{a} + {b}')
    return a + b

def op_sub(a, b):
    print(f'{a} - {b}')
    return a - b

def op_mult(a, b):
    print(f'{a} * {b}')
    return a * b

def op_div(a, b):
    print(f'{a} / {b}')
    return a / b

minimum = 0
maximum = 100
ok = 0
wrong = 0
ops = [op_sum, op_sub, op_mult, op_div]
top_index = len(ops) - 1
try:
    while True:
        a = random.randint(minimum, maximum)
        b = random.randint(minimum, maximum)
        index = random.randint(0, top_index)
        op = ops[index]
        c = op(a, b)
        text = input()
        try:
            answer = int(text)
        except ValueError:

```

Get Help Write Out Where Is Cut Text Justify Cur Pos Undo Mark Text To Bracket Previous
Exit Read File Replace Paste Text To Spell Go To Line Redo Copy Text Where Was Next

Figura: Editando brainz.py con nano. Observe que para guardar cambios debe usar Ctrl + O, y para salir del editor Ctrl + X.

Github clone repo

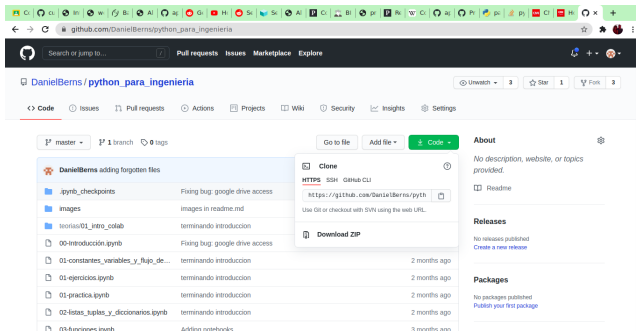


Figura: Como obtener la url del repo para el comando clone en github: presione el boton verde con el nombre “Code”. Seleccione HTTPS y presione el ícono a la derecha para copiar la dirección al portapapeles