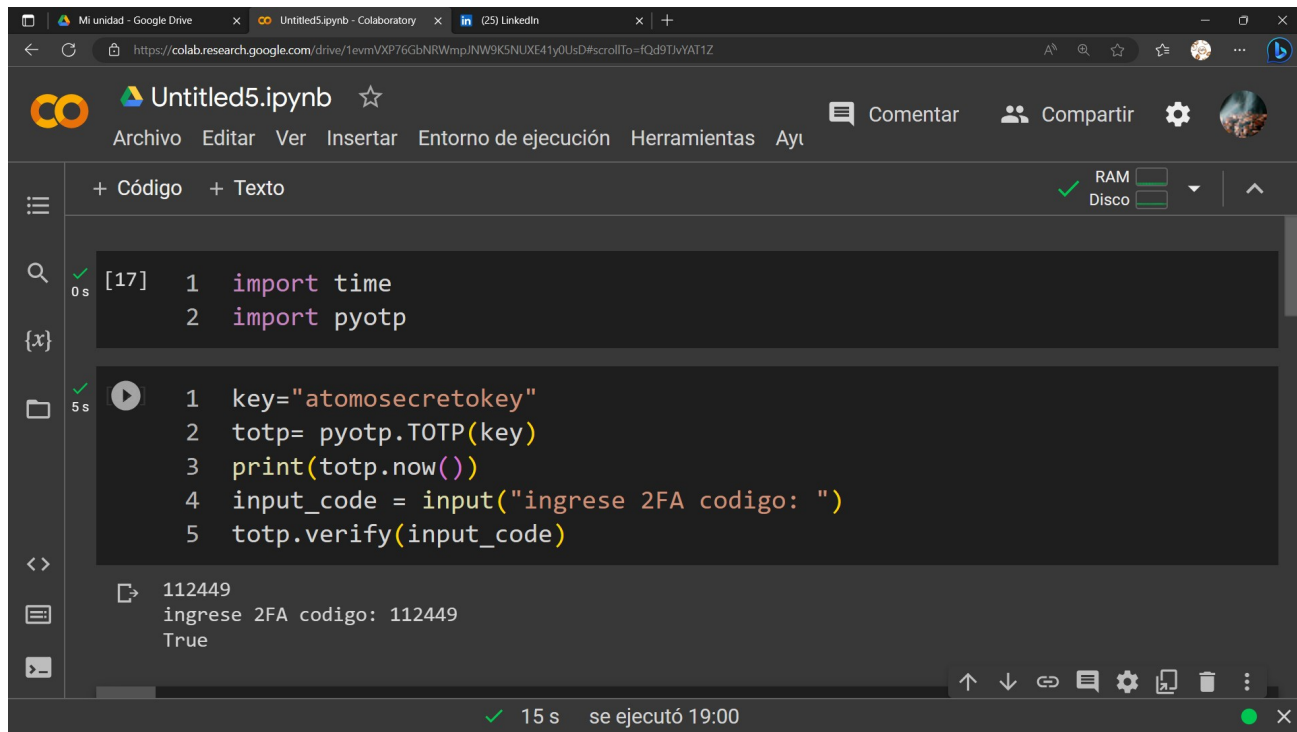


2FA EN PYTHON



The screenshot shows a Google Colaboratory notebook titled 'Untitled5.ipynb'. The code is as follows:

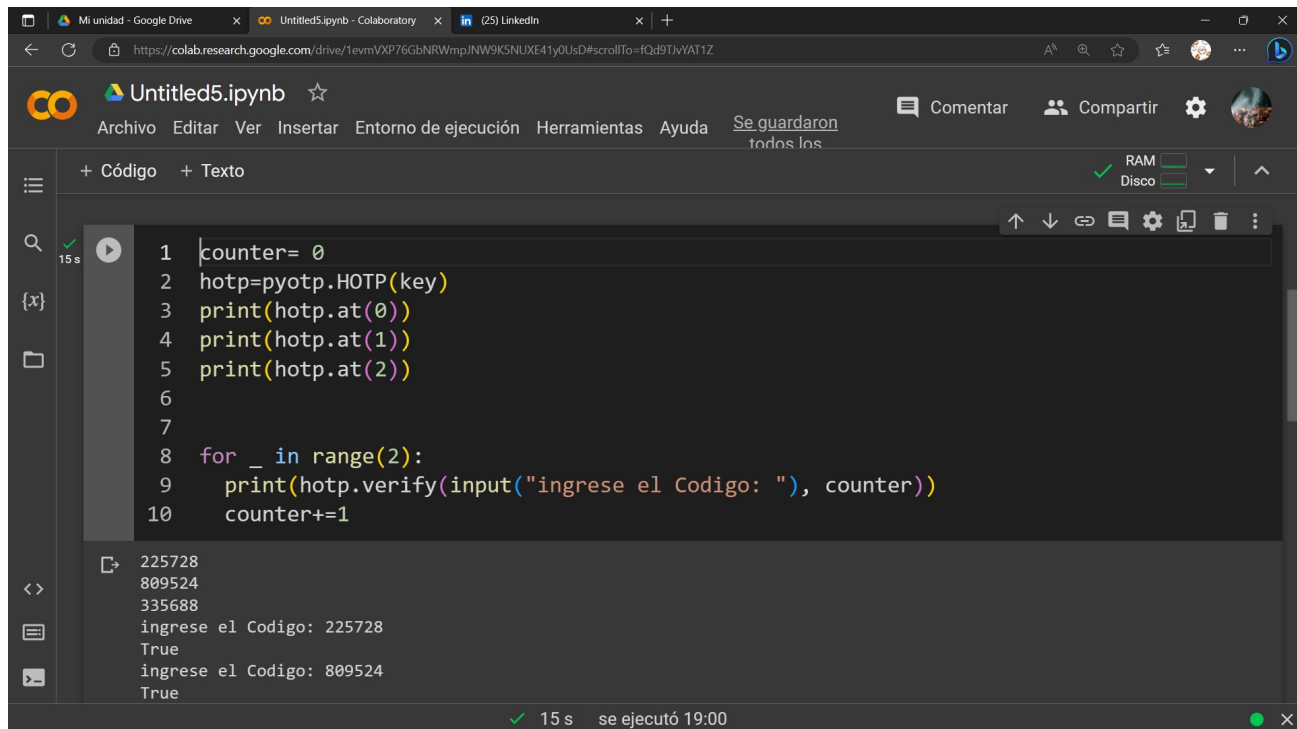
```
[17] 1 import time
      2 import pyotp

1 key="atomosecretokey"
2 totp= pyotp.TOTP(key)
3 print(totp.now())
4 input_code = input("ingrese 2FA codigo: ")
5 totp.verify(input_code)
```

The output of the code is:

```
112449
ingrese 2FA codigo: 112449
True
```

The status bar at the bottom indicates the code was executed successfully in 15 seconds at 19:00.



The screenshot shows the same Google Colaboratory notebook with updated code for 2FA using HOTP:

```
1 counter= 0
2 hotp=pyotp.HOTP(key)
3 print(hotp.at(0))
4 print(hotp.at(1))
5 print(hotp.at(2))
6
7
8 for _ in range(2):
9     print(hotp.verify(input("ingrese elCodigo: "), counter))
10    counter+=1
```

The output of the code is:

```
225728
809524
335688
ingrese elCodigo: 225728
True
ingrese elCodigo: 809524
True
```

The status bar at the bottom indicates the code was executed successfully in 15 seconds at 19:00.

Untitled5.ipynb

Archivo Editar Ver Insertar Entorno de ejecución Herramientas Ayuda Se guardaron todos los

+ Código + Texto

```
1 pip install qrcode
```

Collecting qrcode
Downloading qrcode-7.4.2-py3-none-any.whl (46 kB)
46.2/46.2 kB 1.0 MB/s eta 0:00:00
Requirement already satisfied: typing-extensions in /usr/local/lib/python3.10/dist-packages (from qrcode) (4.7.1)
Collecting pypng (from qrcode)
Downloading pypng-0.20220715.0-py3-none-any.whl (58 kB)
58.1/58.1 kB 3.1 MB/s eta 0:00:00
Installing collected packages: pypng, qrcode
Successfully installed pypng-0.20220715.0 qrcode-7.4.2

```
[12] 1 import qrcode  
2 uri=pyotp.totp.TOTP(key).provisioning_uri(name="marco", issuer_name="Atomo App")  
3 print(uri)  
4 qrcode.make(uri).save("totp.png")
```

otpauth://totp/Atomo%20App:marco?secret=atomosecretokey&issuer=Atomo%20App

15 s se ejecutó 19:00

