



Microsoft Windows [Versión 10.0.22621.2715]
(c) Microsoft Corporation. Todos los derechos reservados.

```
C:\Users\yazmi>pip install netmiko
Requirement already satisfied: netmiko in c:\users\yazmi\appdata\local\programs\python\python312\lib\site-packages (4.2.0)
Requirement already satisfied: ntc-templates>=2.0.0 in c:\users\yazmi\appdata\local\programs\python\python312\lib\site-packages (from netmiko) (4.0.0)
Requirement already satisfied: paramiko>=2.9.5 in c:\users\yazmi\appdata\local\programs\python\python312\lib\site-packages (from netmiko) (3.3.1)
Requirement already satisfied: pyserial>=3.3 in c:\users\yazmi\appdata\local\programs\python\python312\lib\site-packages (from netmiko) (3.5)
Requirement already satisfied: pyyaml>=5.3 in c:\users\yazmi\appdata\local\programs\python\python312\lib\site-packages (from netmiko) (6.0.1)
Requirement already satisfied: scp>=0.13.6 in c:\users\yazmi\appdata\local\programs\python\python312\lib\site-packages (from netmiko) (0.14.5)
Requirement already satisfied: textfsm>=1.1.3 in c:\users\yazmi\appdata\local\programs\python\python312\lib\site-packages (from netmiko) (1.1.3)
Requirement already satisfied: bcrypt>=3.2 in c:\users\yazmi\appdata\local\programs\python\python312\lib\site-packages (from paramiko>=2.9.5->netmiko) (4.0.1)
Requirement already satisfied: cryptography>=3.3 in c:\users\yazmi\appdata\local\programs\python\python312\lib\site-packages (from paramiko>=2.9.5->netmiko) (41.0.4)
Requirement already satisfied: pynacl>=1.5 in c:\users\yazmi\appdata\local\programs\python\python312\lib\site-packages (from paramiko>=2.9.5->netmiko) (1.5.0)
Requirement already satisfied: six in c:\users\yazmi\appdata\local\programs\python\python312\lib\site-packages (from textfsm>=1.1.3->netmiko) (1.16.0)
Requirement already satisfied: future in c:\users\yazmi\appdata\local\programs\python\python312\lib\site-packages (from textfsm>=1.1.3->netmiko) (0.18.3)
Requirement already satisfied: cffi>=1.12 in c:\users\yazmi\appdata\local\programs\python\python312\lib\site-packages (from cryptography>=3.3->paramiko>=2.9.5->netmiko) (1.16.0)
```

```
C:\Windows\system32\cmd.exe
from netmiko) (0.14.5)
Requirement already satisfied: textfsm>=1.1.3 in c:\users\yazmi\appdata\local\programs\python\python312\lib\site-packages (from netmiko) (1.1.3)
Requirement already satisfied: bcrypt>=3.2 in c:\users\yazmi\appdata\local\programs\python\python312\lib\site-packages (from paramiko>=2.9.5->netmiko) (4.0.1)
Requirement already satisfied: cryptography>=3.3 in c:\users\yazmi\appdata\local\programs\python\python312\lib\site-packages (from paramiko>=2.9.5->netmiko) (41.0.4)
Requirement already satisfied: pynacl>=1.5 in c:\users\yazmi\appdata\local\programs\python\python312\lib\site-packages (from paramiko>=2.9.5->netmiko) (1.5.0)
Requirement already satisfied: six in c:\users\yazmi\appdata\local\programs\python\python312\lib\site-packages (from textfsm>=1.1.3->netmiko) (1.16.0)
Requirement already satisfied: future in c:\users\yazmi\appdata\local\programs\python\python312\lib\site-packages (from textfsm>=1.1.3->netmiko) (0.18.3)
Requirement already satisfied: cffi>=1.12 in c:\users\yazmi\appdata\local\programs\python\python312\lib\site-packages (from cryptography>=3.3->paramiko>=2.9.5->netmiko) (1.16.0)
Requirement already satisfied: pycparser in c:\users\yazmi\appdata\local\programs\python\python312\lib\site-packages (from cffi>=1.12->cryptography>=3.3->paramiko>=2.9.5->netmiko) (2.21)

[notice] A new release of pip is available: 23.2.1 -> 23.3.1
[notice] To update, run: python.exe -m pip install --upgrade pip

C:\Users\yazmi>cd Documents

C:\Users\yazmi\Documents>mkdir unidad3

C:\Users\yazmi\Documents>cd unidad3

C:\Users\yazmi\Documents\unidad3>code .

C:\Users\yazmi\Documents\unidad3>
```

```
File Edit Selection View Go Run ...
EXPLORER
  UNIDAD3
    Lab22_ryazmin.py 1
  Welcome
  Lab22_ryazmin.py 1
1 ...
2 Conexión SSH via CLI con Pyhton
3 Autor: Reyna Yazmin Rios Martínez
4 Fecha: 24 / 11 / 2023
5 ...
6
7
8 from netmiko import ConnectHandler
9
10 sshCli = ConnectHandler(
11     device_type = 'cisco_ios',
12     host = '10.10.20.48',
13     port = 22,
14     username = 'developer',
15     password = 'Cisco12345'
16 )
17
18 salida = sshCli.send_command('show ip int brief')
19 print(salida)

PROBLEMS 1 OUTPUT DEBUG CONSOLE TERMINAL PORTS
ModuleNotFoundError: No module named 'netmiko'
PS C:\Users\yazmi\Documents\unidad3>

Ln 18, Col 21 Spaces: 4 UTF-8 CRLF Python 3.11.5 64-bit
```

The screenshot shows a Windows desktop with a terminal window open. The terminal displays an error message: "netmiko.exceptions.NetmikoAuthenticationException: Authentication to device failed." It then lists common causes: invalid username/password, incorrect SSH-key file, and connecting to the wrong device. The user attempts to connect to a Cisco IOS device at 10.10.20.48 using a script. The terminal shows a traceback indicating an "AttributeError: 'CiscoIosSSH' object has no attribute 'sent_command'". Below the error, a table displays network interface configurations.

Interface	IP-Address	OK?	Method	Status	Protocol
GigabitEthernet1	10.10.20.48	YES	NVRAM	up	up
GigabitEthernet2	unassigned	YES	NVRAM	administratively down	down
GigabitEthernet3	unassigned	YES	NVRAM	administratively down	down
Loopback0	10.0.0.1	YES	NVRAM	up	up
Loopback10	unassigned	YES	unset	up	up
Loopback109	10.255.255.9	YES	NVRAM	up	up
VirtualPortGroup0	192.168.1.1	YES	NVRAM	up	up