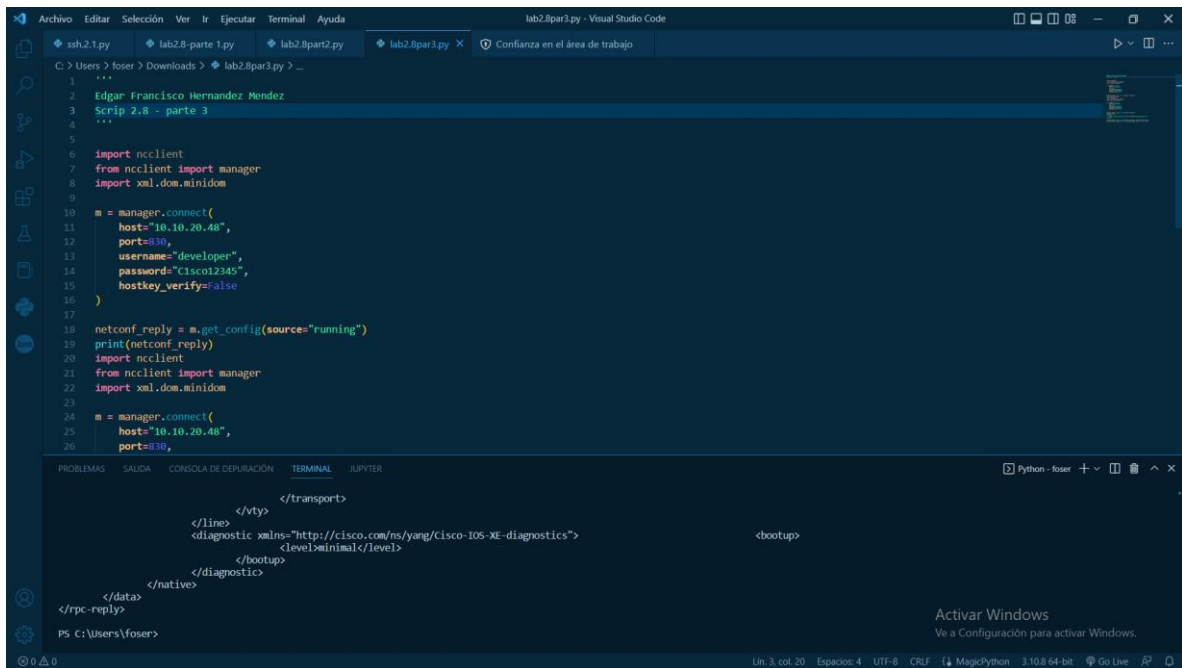


The screenshot displays a Windows 10 desktop environment. The top taskbar includes the Start button, a search bar, and several pinned application icons: File Explorer, Edge, Visual Studio Code, and a terminal window. The Visual Studio Code editor is the primary focus, showing a Python script named `lab2.8.py` in the editor pane. The script is a NetMiner client that connects to a server at `10.10.20.48` on port `830`. It uses the `ncclient` library to establish an SSH connection and the `xml.dom.minidom` library to parse XML data. The script defines a `manager` object and a `netconf_reply` variable, which is then printed. The terminal pane at the bottom shows the command prompt with the directory `C:\Users\fozer\OneDrive\Escritorio\Unidad 3 LABORATORIOS >` and the file `lab2.8.py` open. The terminal output shows the command `python lab2.8.py` being executed, resulting in a large block of XML data being printed to the console. The XML data is a NetMiner response, containing information about the client's configuration, including the `netconf` and `netconf-reply` elements. The terminal window also shows the command prompt with the directory `C:\Users\fozer\` and the file `lab2.8.py` open. The status bar at the bottom of the Visual Studio Code window indicates the current line and column: `Lin. 15, col. 25`. The status bar also shows the current file encoding: `UTF-8` and the current line ending: `CR/LF`. The status bar also shows the current file encoding: `UTF-8` and the current line ending: `CR/LF`. The status bar also shows the current file encoding: `UTF-8` and the current line ending: `CR/LF`.

[illegible]

Usar la función `toprettyxml()` para embeceller

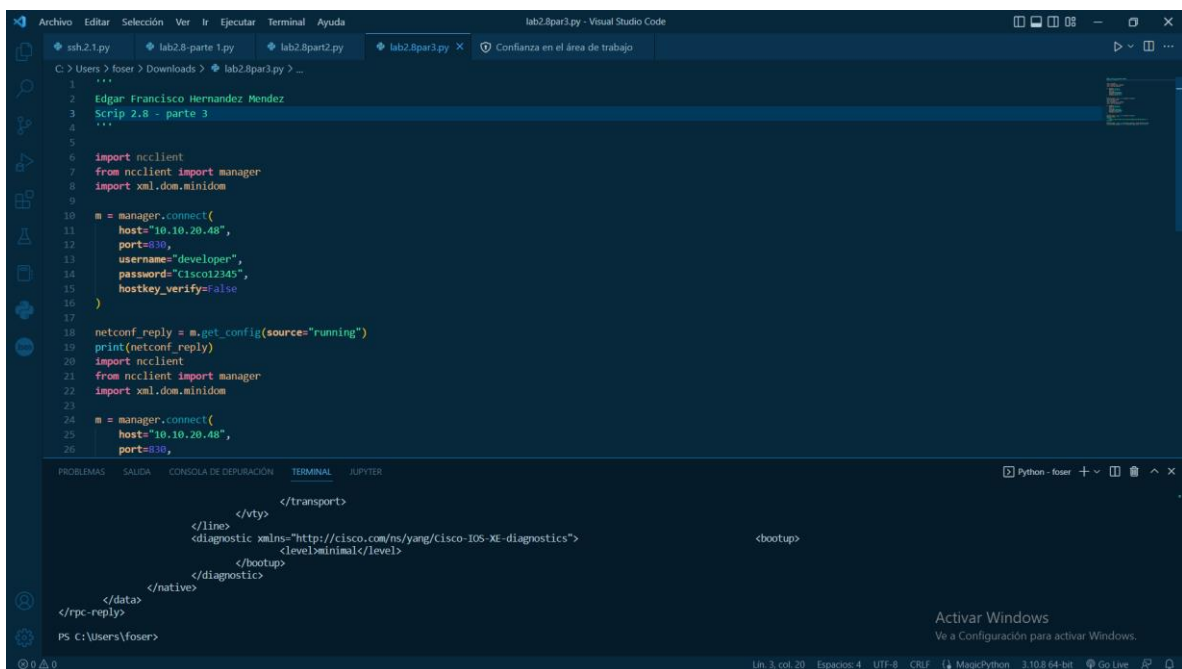


The screenshot shows a Visual Studio Code window with the file `lab2.8par3.py` open. The script is a Python program that uses `ncclient` to connect to a network device and retrieve configuration data. The output in the terminal is an XML document representing the configuration, which is not yet pretty-printed.

```
1 """
2 Edgar Francisco Hernandez Mendez
3 Scrip 2.8 - parte 3
4 """
5
6 import ncclient
7 from ncclient import manager
8 import xml.dom.minidom
9
10 m = manager.connect(
11     host="10.10.20.48",
12     port=830,
13     username="developer",
14     password="Cisco12345",
15     hostkey_verify=False
16 )
17
18 netconf_reply = m.get_config(source="running")
19 print(netconf_reply)
20 import ncclient
21 from ncclient import manager
22 import xml.dom.minidom
23
24 m = manager.connect(
25     host="10.10.20.48",
26     port=830,
```

```
</transport>
</vty>
</line>
<diagnostic xmlns="http://cisco.com/ns/yang/Cisco-IOS-XE-diagnostics">
  <level>minimal</level>
</bootup>
</diagnostic>
</native>
</data>
</rpc-reply>
PS C:\Users\foser>
```

recuperar una configuración definida por un modelo YANG específico

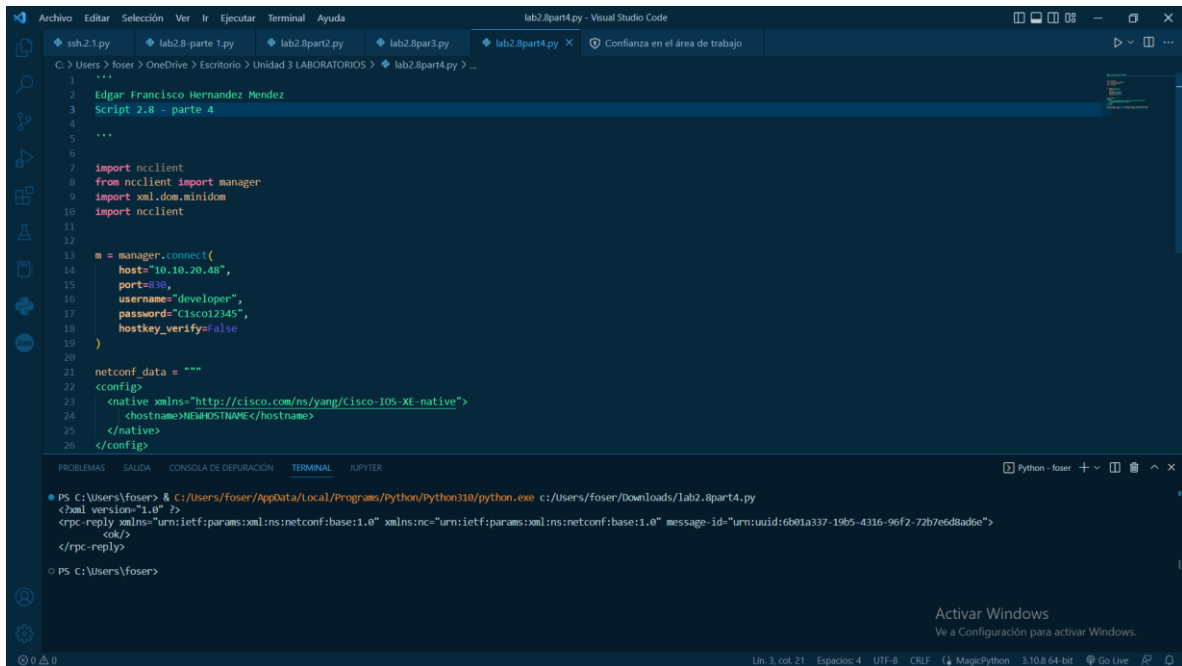


This screenshot is identical to the one above, showing the same Python script and its XML output in the terminal. The XML output is still not pretty-printed.

```
1 """
2 Edgar Francisco Hernandez Mendez
3 Scrip 2.8 - parte 3
4 """
5
6 import ncclient
7 from ncclient import manager
8 import xml.dom.minidom
9
10 m = manager.connect(
11     host="10.10.20.48",
12     port=830,
13     username="developer",
14     password="Cisco12345",
15     hostkey_verify=False
16 )
17
18 netconf_reply = m.get_config(source="running")
19 print(netconf_reply)
20 import ncclient
21 from ncclient import manager
22 import xml.dom.minidom
23
24 m = manager.connect(
25     host="10.10.20.48",
26     port=830,
```

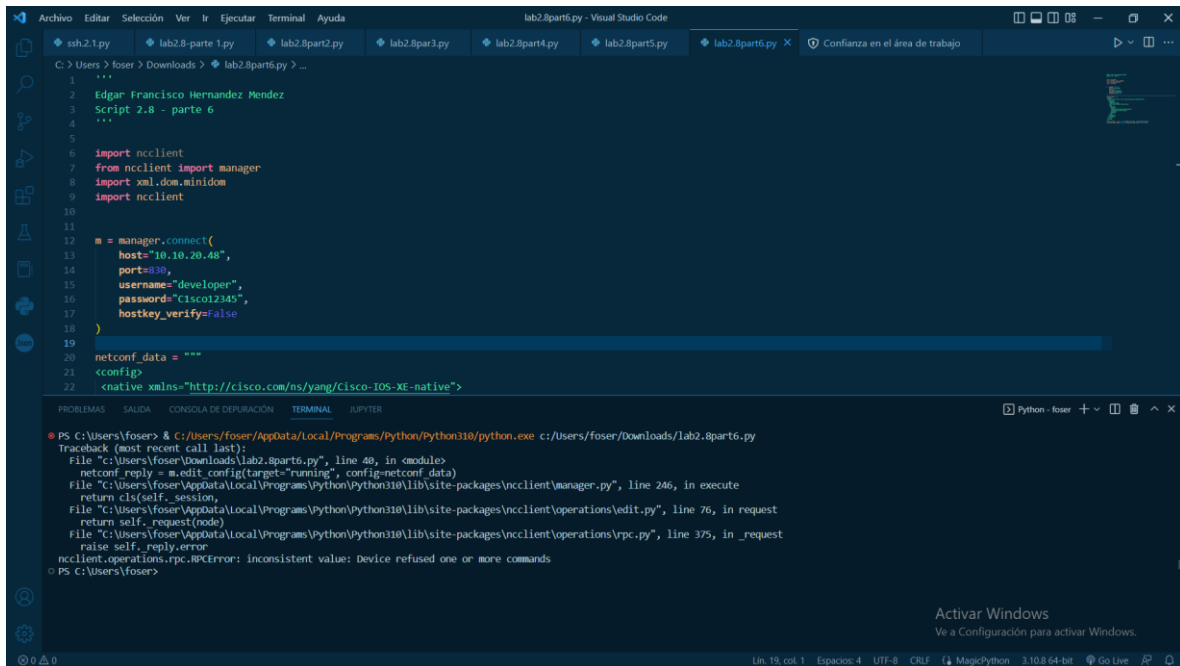
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</transport>
</vty>
</line>
<diagnostic xmlns="http://cisco.com/ns/yang/Cisco-IOS-XE-diagnostics">
  <level>minimal</level>
</bootup>
</diagnostic>
</native>
</data>
</rpc-reply>
PS C:\Users\foser>
```

Crema una interfaz loopback y la salida da (OK)



```
lab2.8part4.py - Visual Studio Code
C:\Users> foser > OneDrive > Escritorio > Unidad 3 LABORATORIOS > lab2.8part4.py > ...
1
2 Edgar Francisco Hernandez Mendez
3 Script 2.8- parte 4
4
5
6
7 import ncclient
8 from ncclient import manager
9 import xml.dom.minidom
10 import ncclient
11
12
13
14 m = manager.connect(
15     host="10.10.20.48",
16     port=830,
17     username="developer",
18     password="Cisco12345",
19     hostkey_verify=False
20 )
21
22 netconf_data = """
23 <config>
24   <native xmlns="http://cisco.com/ns/yang/Cisco-IOS-XE-native">
25     <hostname>NEWKOSTNAME</hostname>
26   </native>
27 </config>
28
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```

Intente crear una nueva interfaz de loopback con una dirección IP en conflicto.



The screenshot shows a Visual Studio Code window with a Python script named `lab2.8part6.py` open. The script is a NetCONF client that connects to a device at `10.10.20.48` with the username `developer` and password `Cisco12345`. It attempts to edit the configuration to add a loopback interface `Lo0` with IP `10.10.20.48`. The terminal shows a traceback error: `ncclient.operations.rpc.RPCError: inconsistent value: Device refused one or more commands`. This error occurs because the IP address `10.10.20.48` is already assigned to another interface on the device, creating a conflict.

```
1  ...
2  Edgar Francisco Hernandez Mendez
3  Script 2.8 - parte 6
4  ...
5
6  import ncclient
7  from ncclient import manager
8  import xml.dom.minidom
9  import ncclient
10
11
12  m = manager.connect(
13      host="10.10.20.48",
14      port=830,
15      username="developer",
16      password="Cisco12345",
17      hostkey_verify=False
18  )
19
20  netconf_data = """
21  <config>
22  <native xmlns="http://cisco.com/ns/yang/Cisco-IOS-XE-native">
```

PROBLEMAS SALIDA CONSOLA DE DEPURACIÓN TERMINAL JUPYTER

Python - foser + -

PS C:\Users\foser> & c:/Users/foser/AppData/Local/Programs/Python/Python310/python.exe c:/Users/foser/Downloads/lab2.8part6.py
Traceback (most recent call last):
File "c:/Users/foser/Downloads/lab2.8part6.py", line 40, in <module>
 netconf_reply = m.edit_config(target="running", config=netconf_data)
File "C:\Users\foser\AppData\Local\Programs\Python\Python310\lib\site-packages\ncclient\manager.py", line 246, in execute
 return cls(self._session,
File "C:\Users\foser\AppData\Local\Programs\Python\Python310\lib\site-packages\ncclient\operations\edit.py", line 76, in request
 return self._request(node)
File "C:\Users\foser\AppData\Local\Programs\Python\Python310\lib\site-packages\ncclient\operations\rpc.py", line 375, in _request
 raise self._reply.error
ncclient.operations.rpc.RPCError: inconsistent value: Device refused one or more commands
PS C:\Users\foser>

Activar Windows
Ve a Configuración para activar Windows.

lin 19, col 1 Espacios: 4 UTF-8 ORF 4 MagicPython 3:10.0 64-bit Go Live .R