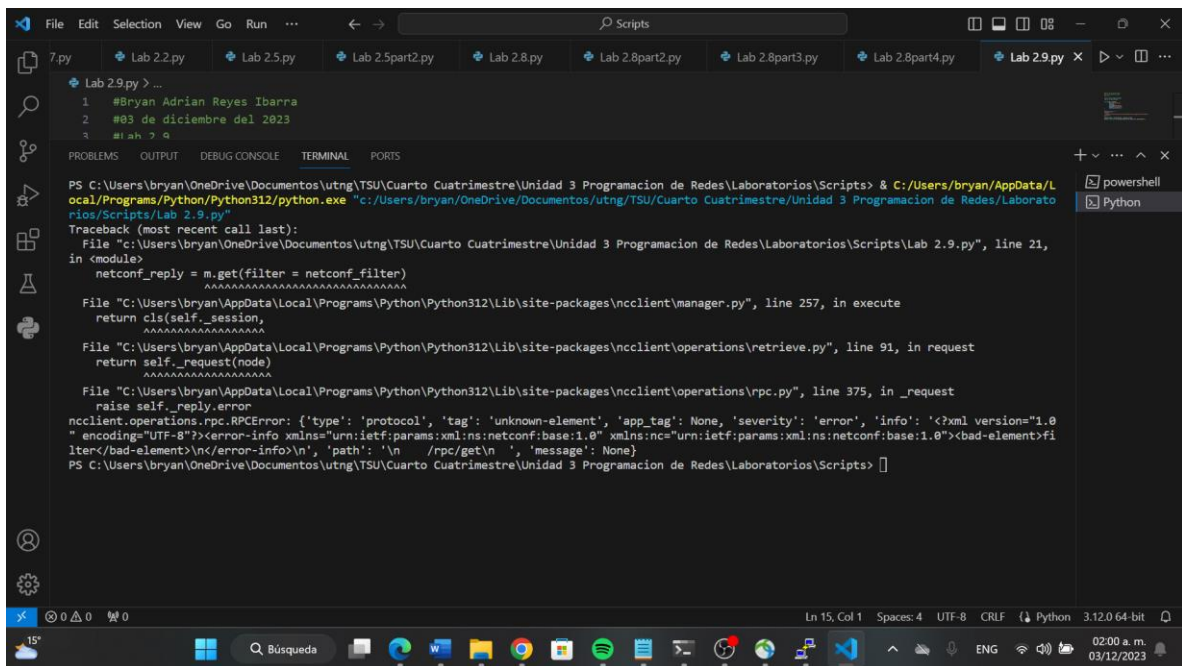


```
1 #Bryan Adrian Reyes Ibarra
2 #03 de diciembre del 2023
3 #Lab 2.9
4
5 from ncclient import manager
6 import xml.dom.minidom
7
8 m = manager.connect(
9     host="10.10.20.48",
10    port=830,
11    username="developer",
12    password="Cisco12345",
13    hostkey_verify=False
14 )
15
16 netconf_filter = """
17 <filter>
18   <interfaces-state xmlns="urn:ietf:params:xml:ns:yang:ietf-interfaces"/>
19 </filter>
20 """
21 netconf_reply = m.get(filter = netconf_filter)
22 print(xml.dom.minidom.parseString(netconf_reply.xml).toprettyxml())
23
24
25
```

PS C:\Users\bryan\OneDrive\Documentos\utng\TSU\Cuarto Cuatrimestre\Unidad 3 Programacion de Redes\Laboratorios\Scripts>



```
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PS C:\Users\bryan\OneDrive\Documentos\utng\TSU\Cuarto Cuatrimestre\Unidad 3 Programacion de Redes\Laboratorios\Scripts> & C:/Users/bryan/AppData/Local/Programs/Python/Python312/python.exe "c:/Users/bryan/OneDrive/Documentos/utng/TSU/Cuarto Cuatrimestre/Unidad 3 Programacion de Redes/Laboratorios/Scripts/Lab 2.9.py"

Traceback (most recent call last):

File "c:\Users\bryan\OneDrive\Documentos\utng\TSU\Cuarto Cuatrimestre\Unidad 3 Programacion de Redes\Laboratorios\Scripts\Lab 2.9.py", line 21, in <module>

netconf_reply = m.get(filter = netconf_filter)

File "C:\Users\bryan\AppData\Local\Programs\Python\Python312\Lib\site-packages\ncclient\manager.py", line 257, in execute

return cls(self._session,

File "C:\Users\bryan\AppData\Local\Programs\Python\Python312\Lib\site-packages\ncclient\operations\retrieve.py", line 91, in request

return self._request(node)

File "C:\Users\bryan\AppData\Local\Programs\Python\Python312\Lib\site-packages\ncclient\operations\rpc.py", line 375, in _request

raise self._reply.error

ncclient.operations.rpc.RPCError: {'type': 'protocol', 'tag': 'unknown-element', 'app_tag': None, 'severity': 'error', 'info': '<?xml version="1.0" encoding="UTF-8"?><error-info xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" xmlns:nc="urn:ietf:params:xml:ns:netconf:base:1.0"><bad-element>filter</bad-element></error-info>\n', 'path': '\n /rpc/get\n ', 'message': None}

PS C:\Users\bryan\OneDrive\Documentos\utng\TSU\Cuarto Cuatrimestre\Unidad 3 Programacion de Redes\Laboratorios\Scripts>

```
File Edit Selection View Go Run ... Scripts
7.py Lab 2.2.py Lab 2.5.py Lab 2.5part2.py Lab 2.8.py Lab 2.8part2.py Lab 2.8part3.py Lab 2.8part4.py Lab 2.9.py x
Lab 2.9.py > ...
13 password="Cisco12345",
14 hostkey_verify=False
15 )
16
17 netconf_filter = """
18 <filter>
19 <interfaces-state xmlns="urn:ietf:params:xml:ns:yang:ietf-interfaces"/>
20 </filter>
21 """
22 netconf_reply = m.get(filter = netconf_filter)
23 print(xml.dom.minidom.parseString(netconf_reply.xml).toprettyxml())
24
25
26 netconf_reply_dict = xmldict.parse(netconf_reply.xml)
27 for interface in netconf_reply_dict["rpc-reply"]["data"]["interfaces-state"]["interface"]:
28     print("Name: {} MAC: {} Input: {} Output: {}".format(
29         interface["name"],
30         interface["phys-address"],
31         interface["statistics"]["in-octets"],
32         interface["statistics"]["out-octets"]
33     ))
34
35
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

NameError: name 'netconf_reply' is not defined
PS C:\Users\bryan\OneDrive\Documentos\utng\TSU\Cuarto Cuatrimestre\Unidad 3 Programacion de Redes\Laboratorios\Scripts>

Ln 35, Col 1 Spaces: 4 UTF-8 CRLF Python 3.12.0 64-bit

```
File Edit Selection View Go Run ... Scripts
7.py Lab 2.2.py Lab 2.5.py Lab 2.5part2.py Lab 2.8.py Lab 2.8part2.py Lab 2.8part3.py Lab 2.8part4.py Lab 2.9.py x
Lab 2.9.py > ...
13 password="Cisco12345",
14 hostkey_verify=False
15 )
16
17 netconf_filter = """
18 <filter>
19 <interfaces-state xmlns="urn:ietf:params:xml:ns:yang:ietf-interfaces"/>
20 </filter>
21 """
22 netconf_reply = m.get(filter = netconf_filter)
23 print(xml.dom.minidom.parseString(netconf_reply.xml).toprettyxml())
24
25
26 netconf_reply_dict = xmldict.parse(netconf_reply.xml)
27 for interface in netconf_reply_dict["rpc-reply"]["data"]["interfaces-state"]["interface"]:
28     print("Name: {} MAC: {} Input: {} Output: {}".format(
29         interface["name"],
30         interface["phys-address"],
31         interface["statistics"]["in-octets"],
32         interface["statistics"]["out-octets"]
33     ))
34
35
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

" encoding="UTF-8"><error-info xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" xmlns:nc="urn:ietf:params:xml:ns:netconf:base:1.0"><bad-element>fi
lter</bad-element>\n<error-info>\n', 'path': '\n /rpc/get\n ', 'message': None}
PS C:\Users\bryan\OneDrive\Documentos\utng\TSU\Cuarto Cuatrimestre\Unidad 3 Programacion de Redes\Laboratorios\Scripts\Lab 2.9part2.py
todict.parse(netconf_reply.xml)
NameError: name 'netconf_reply' is not defined
PS> & C:/Users/bryan/AppData/Local/Programs/Python/Python312/python.exe "c:/Users/bryan/OneDrive/Documentos/utng/TSU/Cuarto Cuatrimestre/Unidad 3 Programacion de Redes/Laboratorios/Scripts/Lab 2.9.py"
Traceback (most recent call last):
File "c:/Users/bryan/OneDrive/Documentos/utng/TSU/Cuarto Cuatrimestre/Unidad 3 Programacion de Redes/Laboratorios/Scripts/Lab 2.9.py", line 22, in <module>
 netconf_reply = m.get(filter = netconf_filter)
File "C:\Users\bryan\AppData\Local\Programs\Python\Python312\Lib\site-packages\ncclient\manager.py", line 257, in execute
 return cls(self._session, node)
File "C:\Users\bryan\AppData\Local\Programs\Python\Python312\Lib\site-packages\ncclient\operations\retrieve.py", line 91, in request
 return self._request(node)
File "C:\Users\bryan\AppData\Local\Programs\Python\Python312\Lib\site-packages\ncclient\operations\rpc.py", line 375, in _request
 raise self._reply.error
ncclient.operations.rpc.RPCError: {'type': 'protocol', 'tag': 'unknown-element', 'app_tag': None, 'severity': 'error', 'info': '<?xml version="1.0" encoding="UTF-8"><error-info xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" xmlns:nc="urn:ietf:params:xml:ns:netconf:base:1.0"><bad-element>fi
lter</bad-element>\n<error-info>\n', 'path': '\n /rpc/get\n ', 'message': None}
PS C:\Users\bryan\OneDrive\Documentos\utng\TSU\Cuarto Cuatrimestre\Unidad 3 Programacion de Redes\Laboratorios\Scripts>

Ln 22, Col 47 Spaces: 4 UTF-8 CRLF Python 3.12.0 64-bit