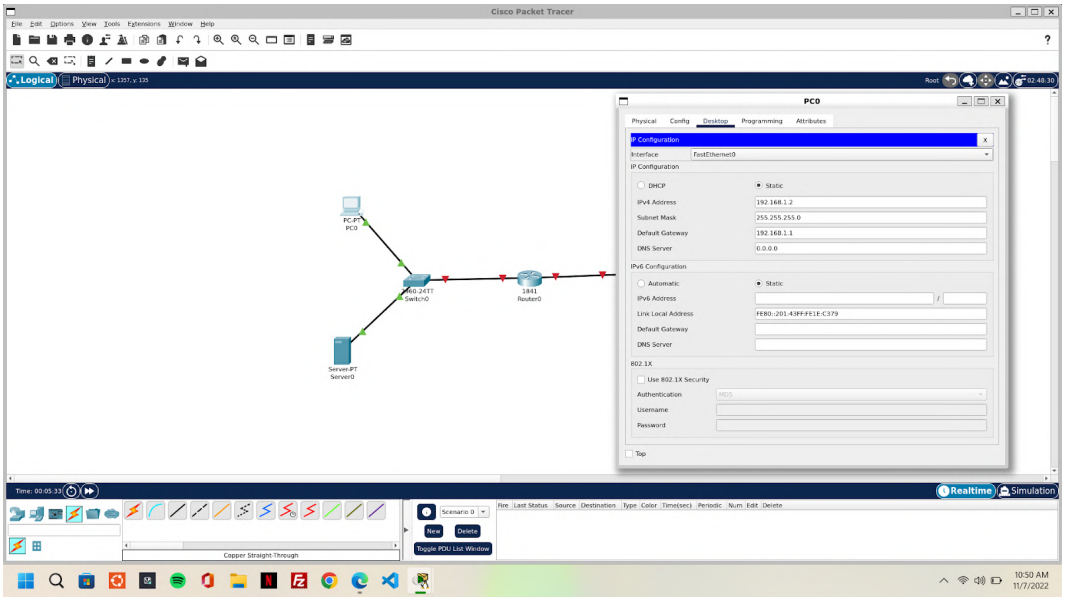
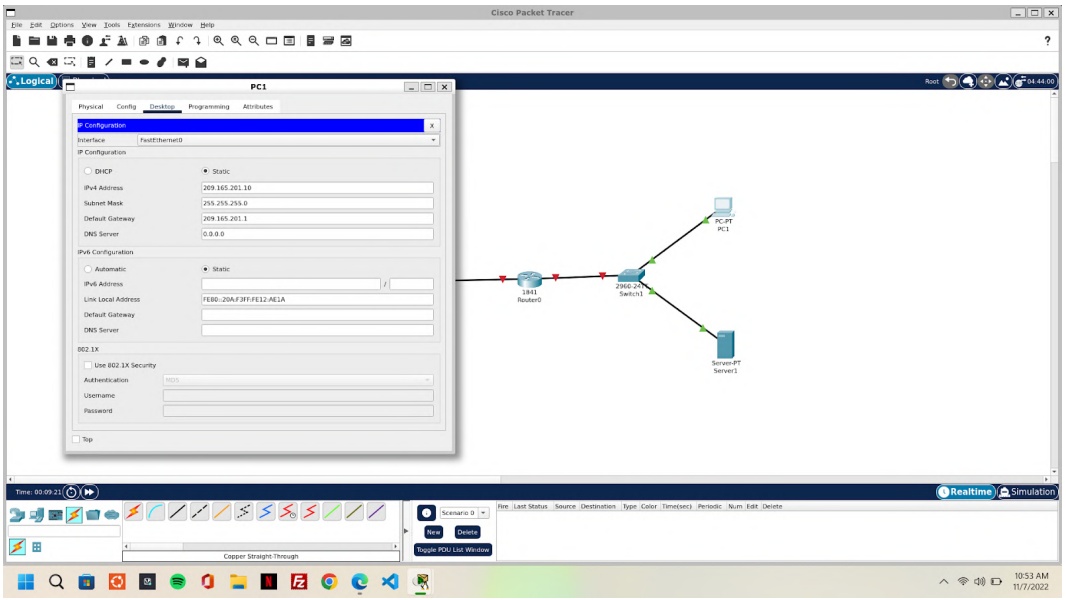
CS 342: Computer Networks Lab
Assignment 5: Learn Cisco Packet Tracer to Configure Switch, Router, VLAN, and Inter VLAN Routing

Group-46
Somya Khandelwal (200123056)
Soumya (200123057)
Srinath V (200123058)
Srishti Kumari (200123059)

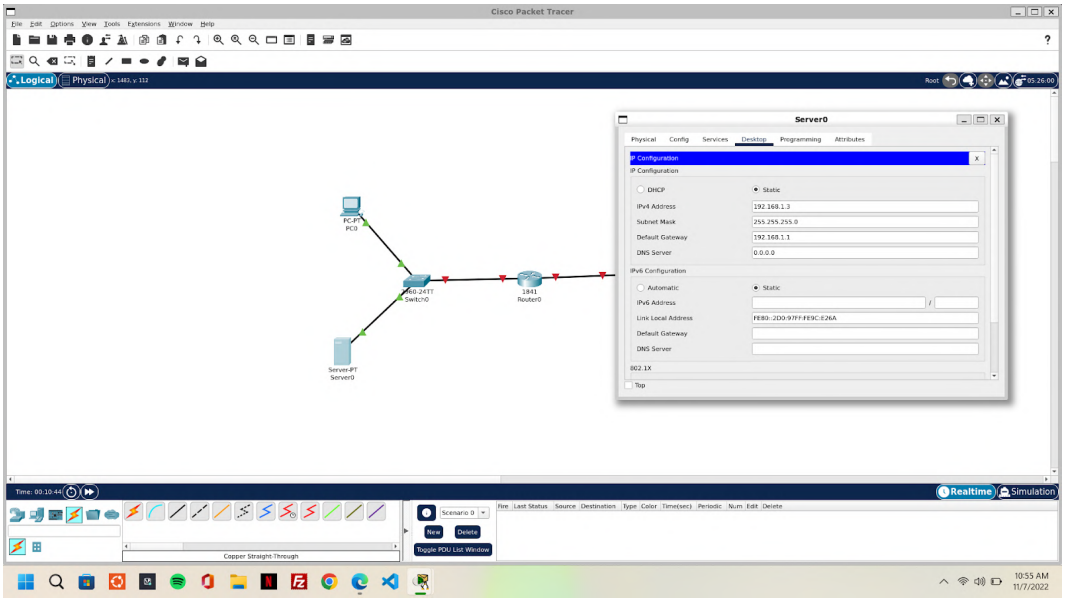
A.

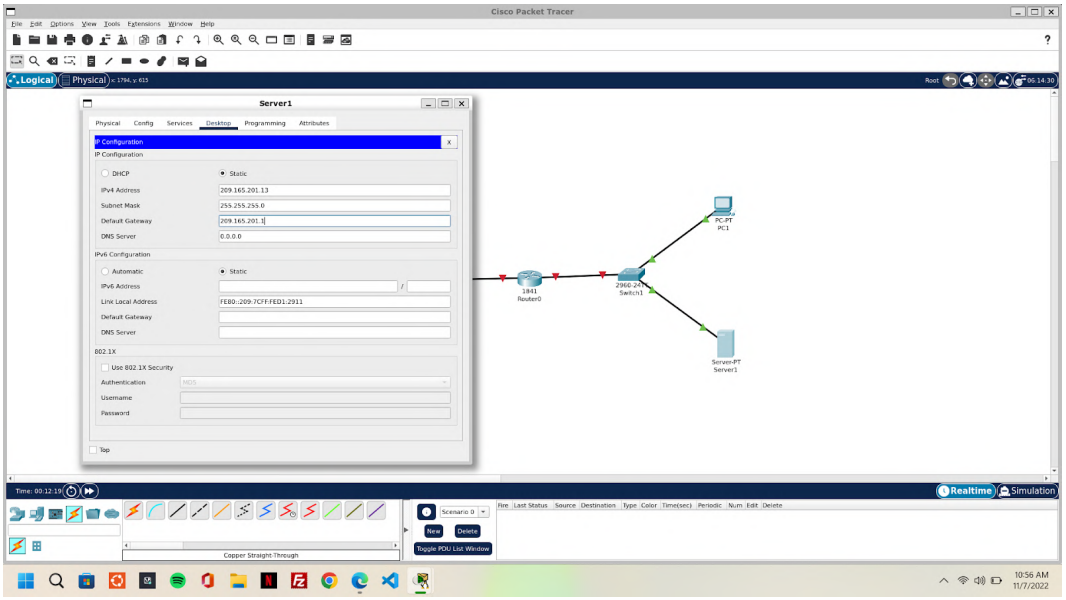
Assign IP address, subnet mask, default gateway to the PC





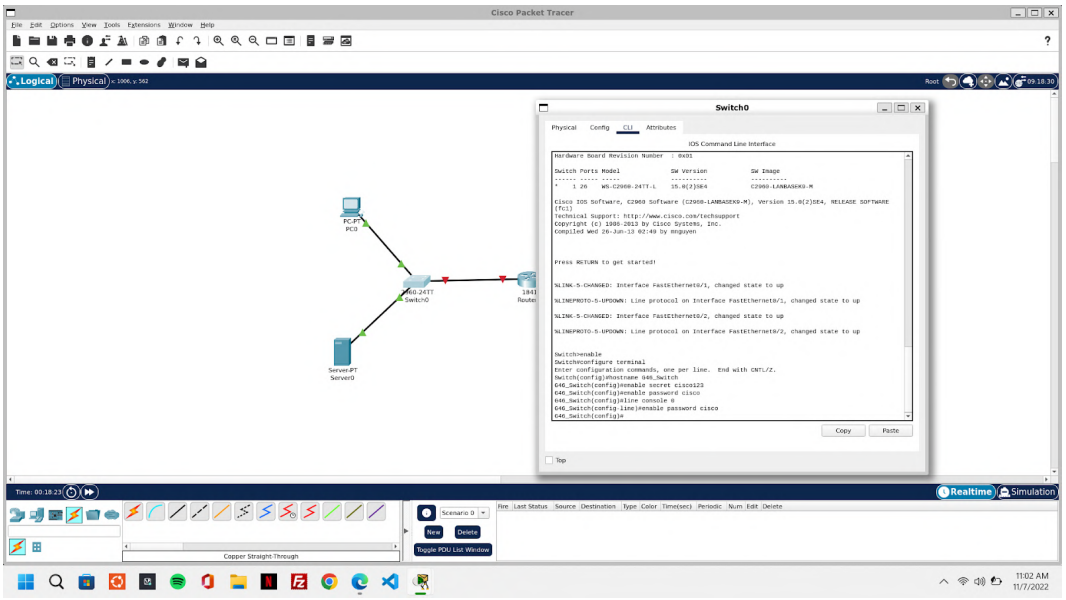
Assign IP address, subnet mask, default gateway to the Server

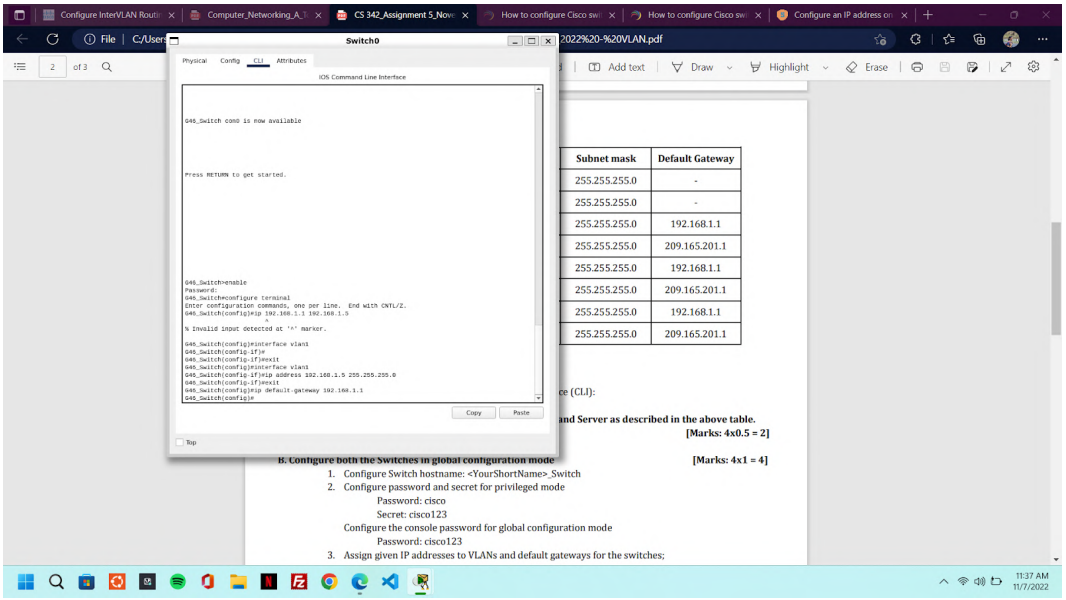


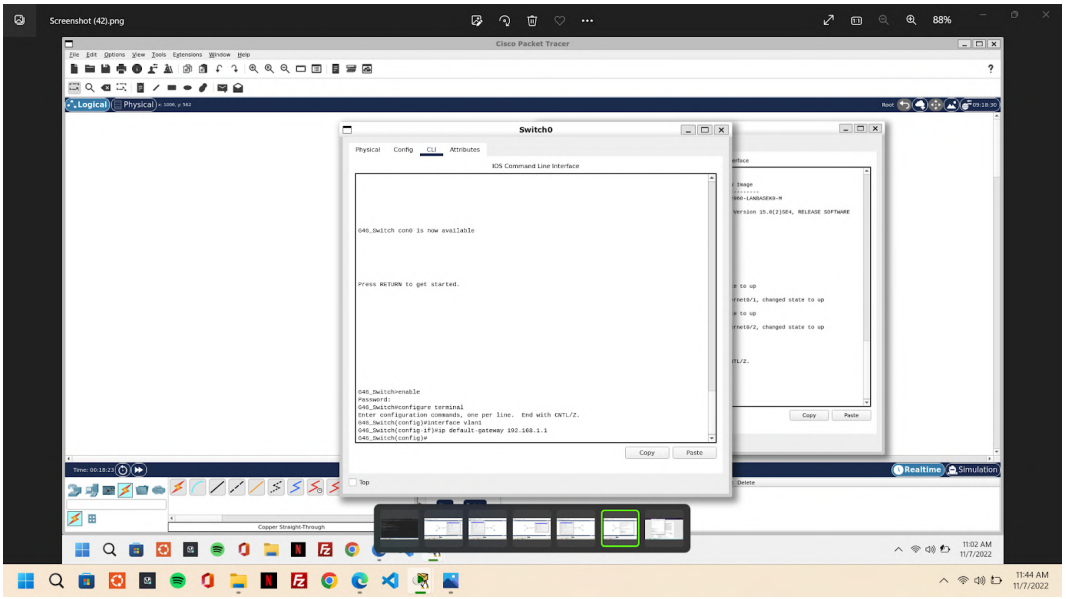


B.

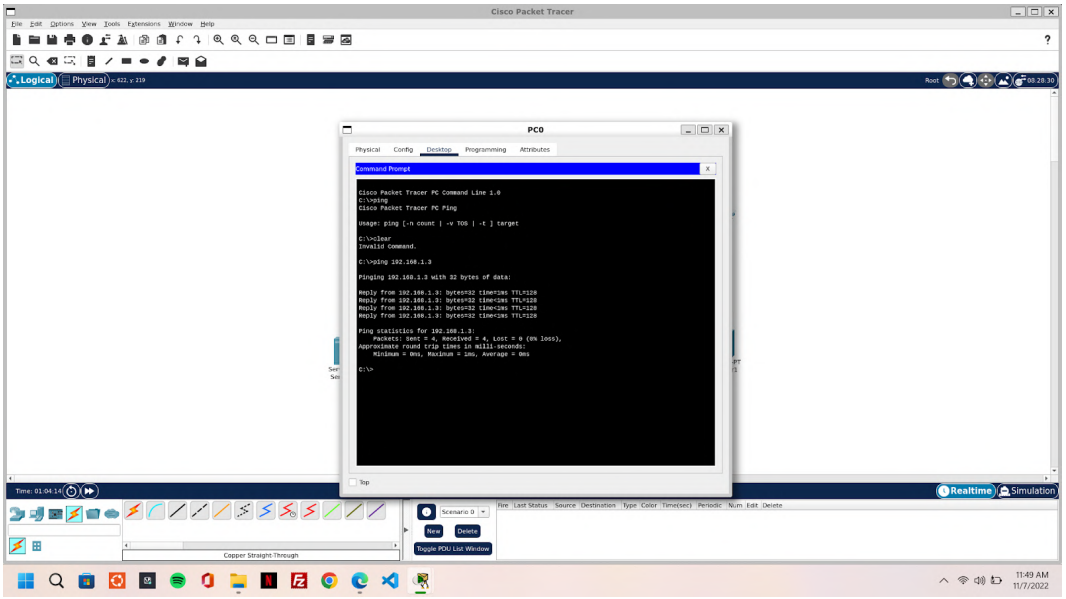
1, 2. Configure both the Switch 0 in global configuration mode



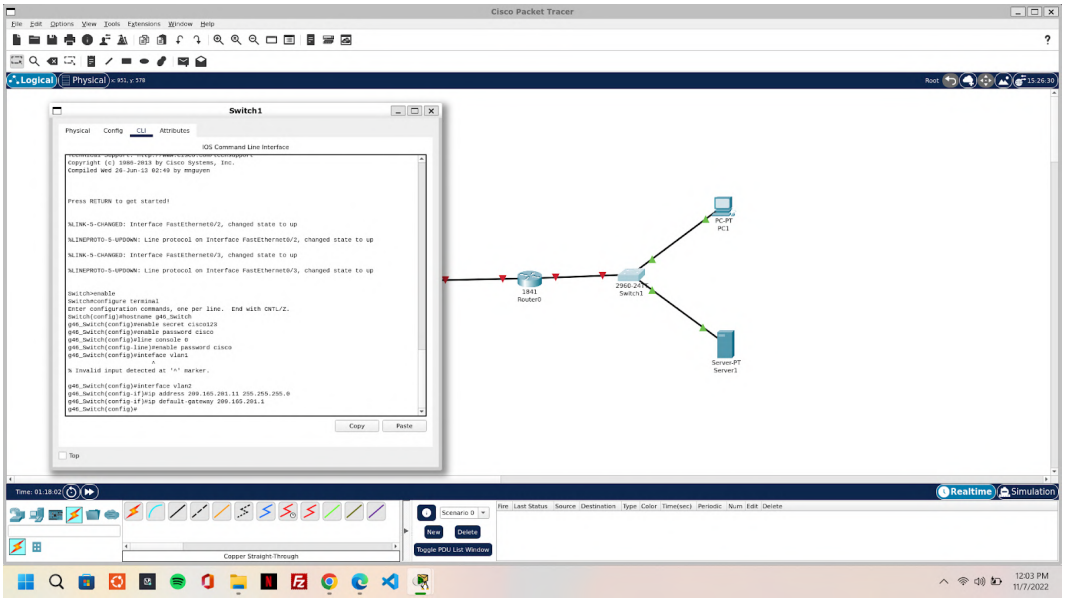



Screenshot (42).png
88%
Cisco Packet Tracer
Switch0
Physical
Config
CLI
Attributes
IOS Command Line Interface
Press RETURN to get started.
Copy
Paste
Realtime
Simulation

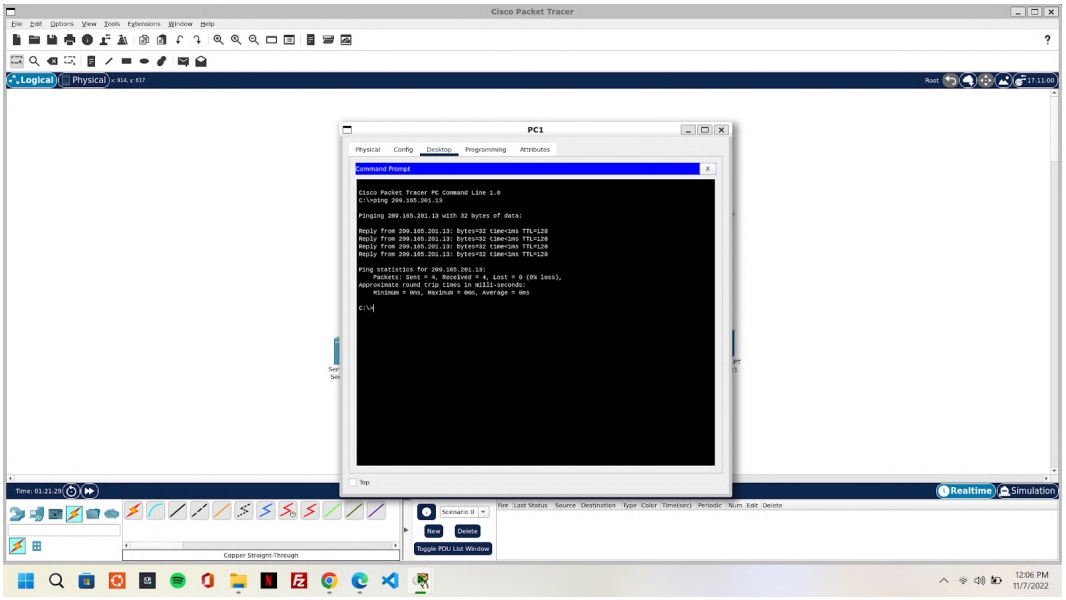
3, 4.


Cisco Packet Tracer
PC0
Physical
Config
Desktop
Programming
Attributes
Command Prompt
Cisco Packet Tracer PC Command Line 1.0
C:\>ping
Cisco Packet Tracer PC Ping
Usage: ping [-n count | -v TOS | -t] target
C:\>clear
Invalid Command.
C:\>ping 192.168.1.3
Pinging 192.168.1.3 with 32 bytes of data:
Reply from 192.168.1.3: bytes=32 time=1ms TTL=128
Reply from 192.168.1.3: bytes=32 time<1ms TTL=128
Reply from 192.168.1.3: bytes=32 time<1ms TTL=128
Reply from 192.168.1.3: bytes=32 time<1ms TTL=128
Ping statistics for 192.168.1.3:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 1ms, Average = 0ms
C:\>
Realtime
Simulation
Copper Straight-Through

1, 2. Configure both the Switch 1 in global configuration mode

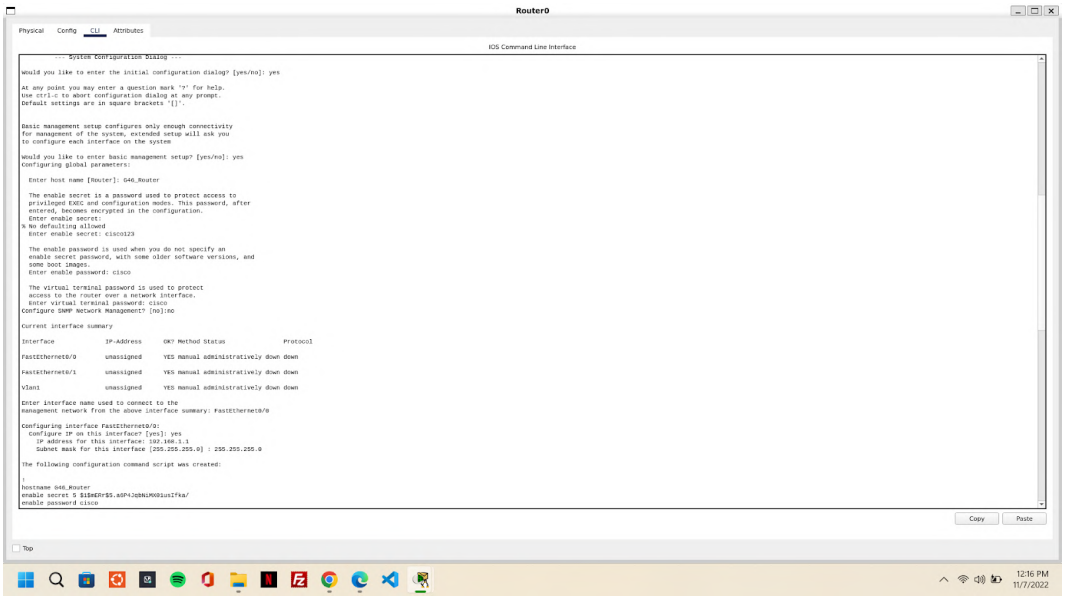


3, 4.

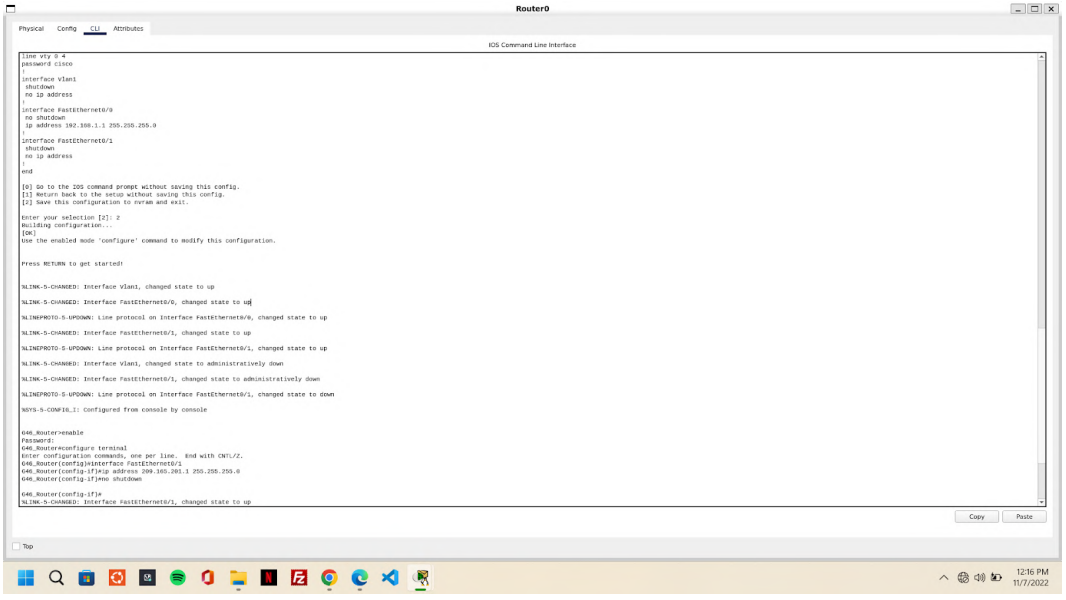


C. Configure Router in global configuration mode

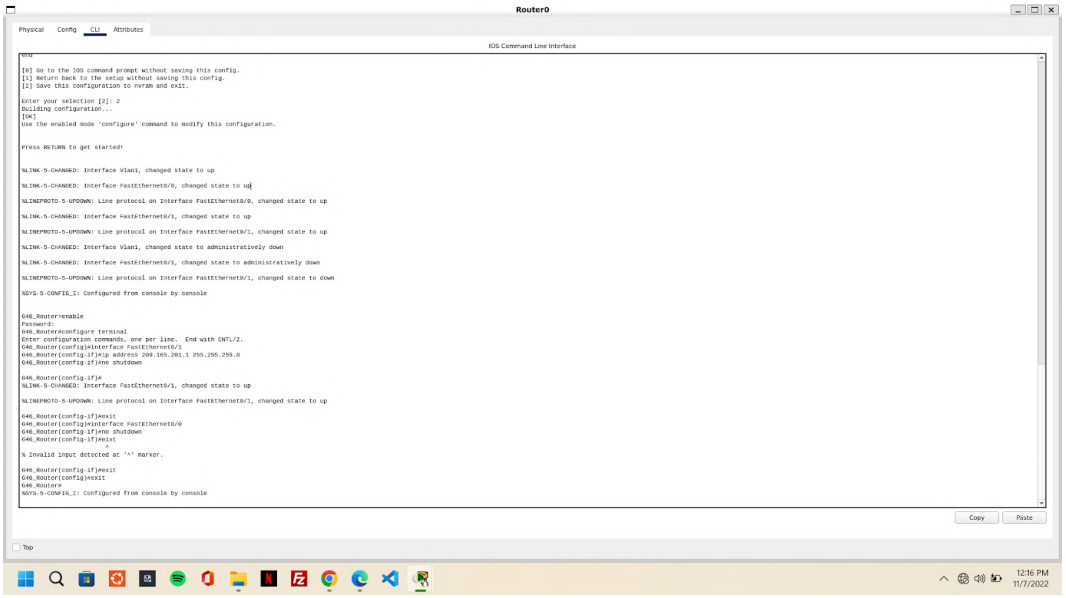
1.

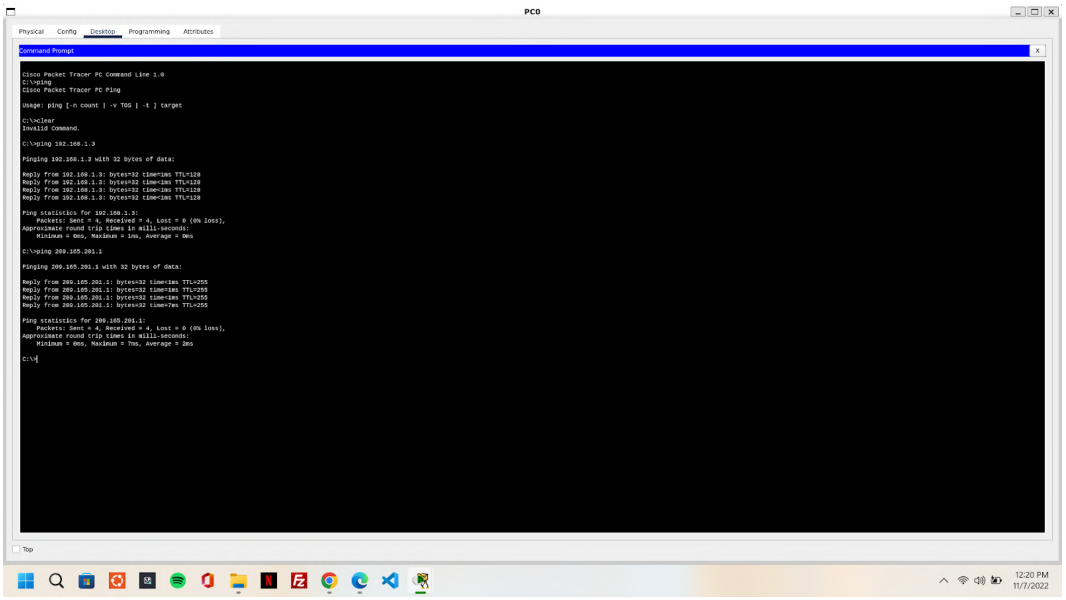


2.

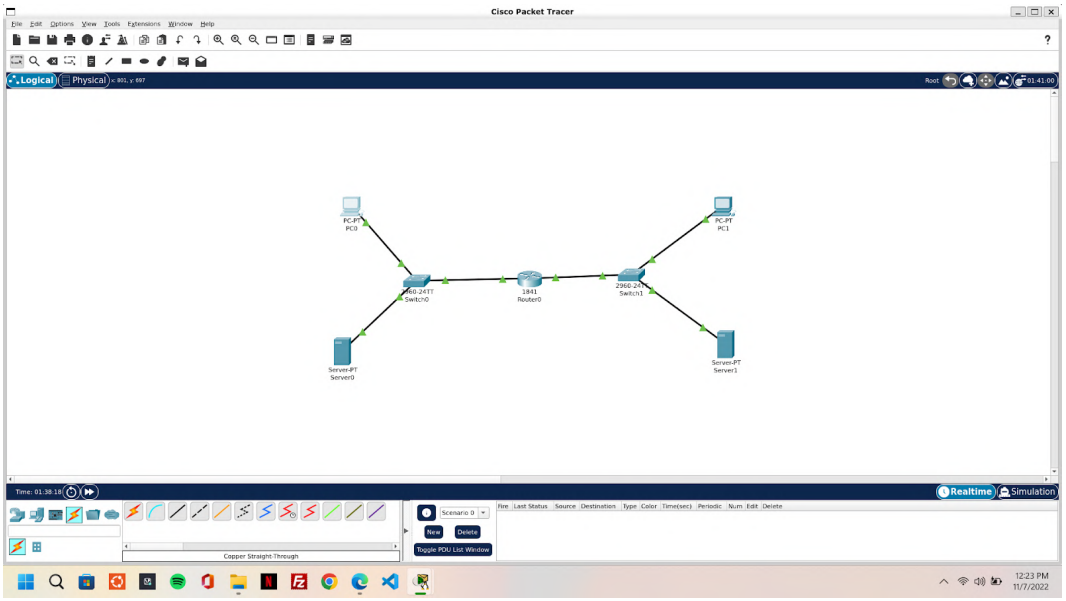


3.


Router0
Physical
Config
CLI
Attributes
IOS Command Line Interface
[0] Go to the IOS command prompt without saving this config.
[1] Return back to the setup without saving this config.
[2] Save this configuration to nvram and exit.
Enter your selection [2]: 2
Building configuration...
[OK]
Use the enabled mode 'configure' command to modify this configuration.
Press RETURN to get started!
%LINK-5-CHANGED: Interface Vlan1, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
%LINK-5-CHANGED: Interface Vlan1, changed state to administratively down
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to administratively down
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to down
%SYS-5-CONFIG_I: Configured from console by console
G46_Router>enable
Password:
G46_Router#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
G46_Router(config)#interface FastEthernet0/1
G46_Router(config-if)#ip address 209.165.201.1 255.255.255.0
G46_Router(config-if)#no shutdown
G46_Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up
G46_Router(config-if)#exit
G46_Router(config)#interface FastEthernet0/0
G46_Router(config-if)#no shutdown
G46_Router(config-if)#exit
^
% Invalid input detected at '^' marker.
G46_Router(config-if)#exit
G46_Router(config)#exit
G46_Router#
%SYS-5-CONFIG_I: Configured from console by console
Copy
Paste
Top
12:16 PM
11/7/2022

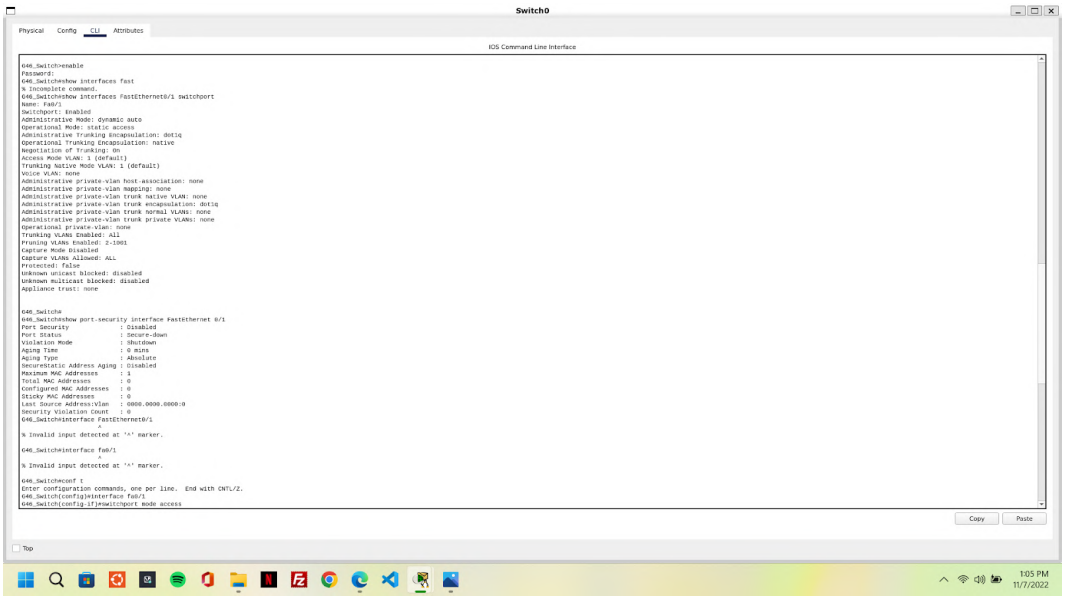

PC0
Physical
Config
Desktop
Programming
Attributes
Command Prompt
Cisco Packet Tracer PC Command Line 1.0
C:\>ping
Cisco Packet Tracer PC Ping
Usage: ping [-n count | -v TOS | -t] target
C:\>clear
Invalid Command.
C:\>ping 192.168.1.3
Pinging 192.168.1.3 with 32 bytes of data:
Reply from 192.168.1.3: bytes=32 time=1ms TTL=128
Reply from 192.168.1.3: bytes=32 time<1ms TTL=128
Reply from 192.168.1.3: bytes=32 time<1ms TTL=128
Reply from 192.168.1.3: bytes=32 time<1ms TTL=128
Ping statistics for 192.168.1.3:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 1ms, Average = 0ms
C:\>ping 209.165.201.1
Pinging 209.165.201.1 with 32 bytes of data:
Reply from 209.165.201.1: bytes=32 time=1ms TTL=255
Reply from 209.165.201.1: bytes=32 time=1ms TTL=255
Reply from 209.165.201.1: bytes=32 time=1ms TTL=255
Reply from 209.165.201.1: bytes=32 time=7ms TTL=255
Ping statistics for 209.165.201.1:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 7ms, Average = 2ms
C:\>
Top
12:20 PM
11/7/2022

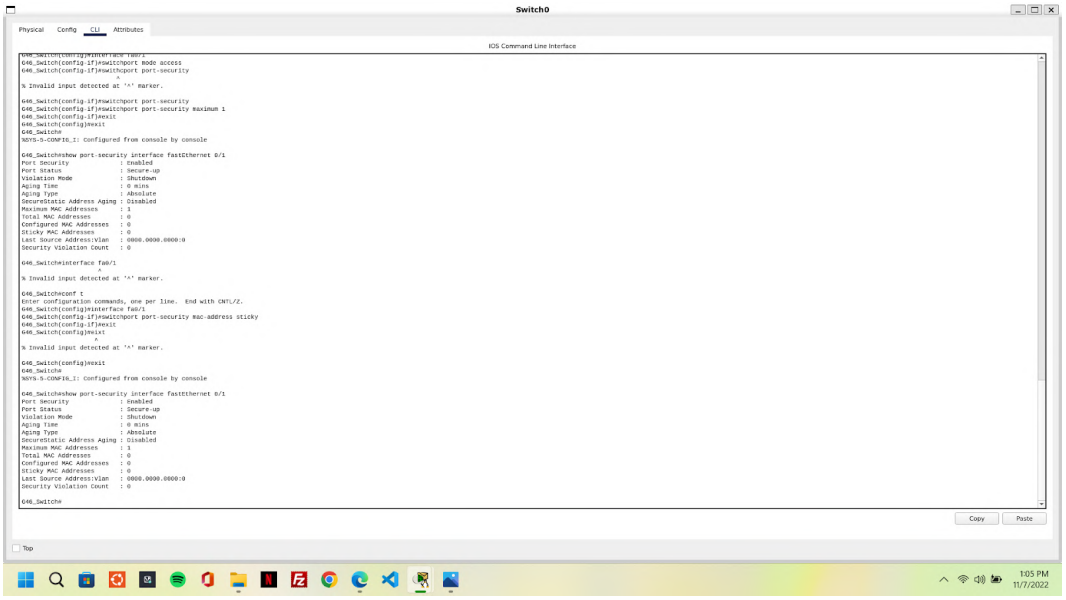
Inter VLAN communication proper (all connections green)



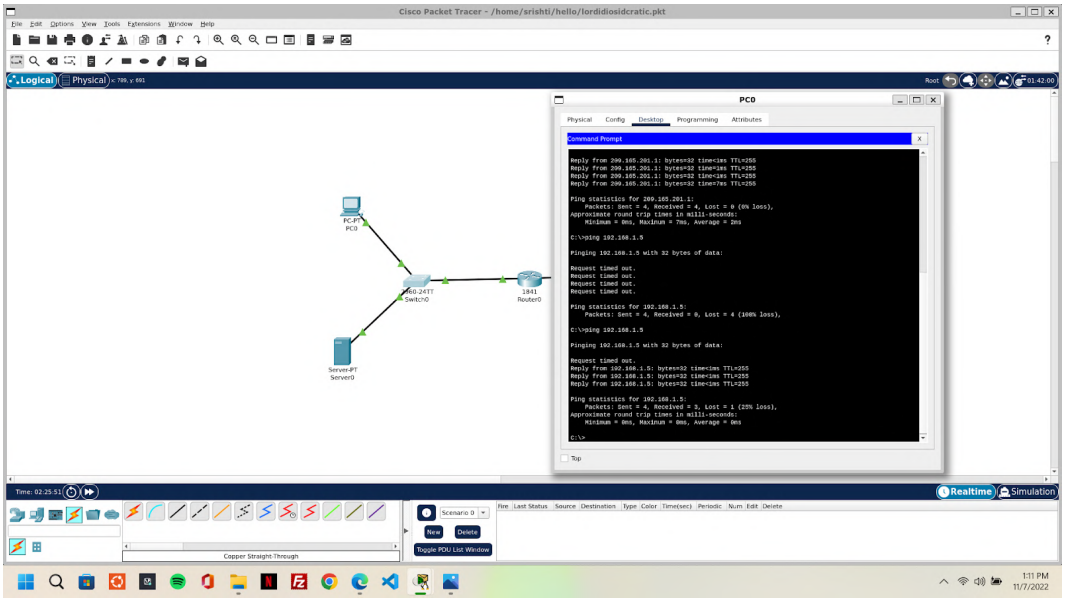
D.

1, 2. Configure port security for the port used by PC0 and verify port security enabled for fa0/1

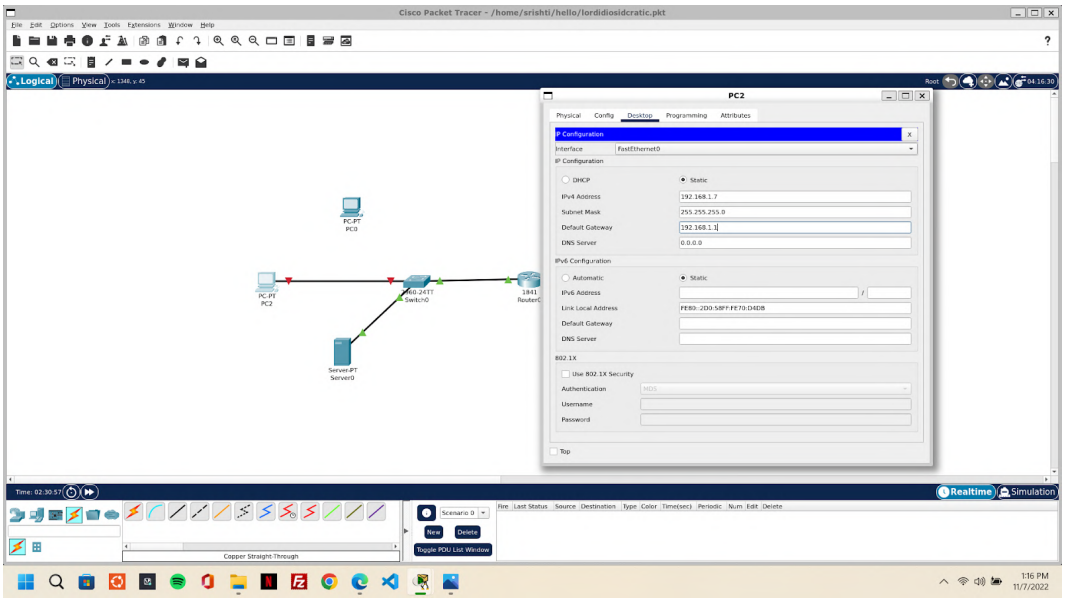




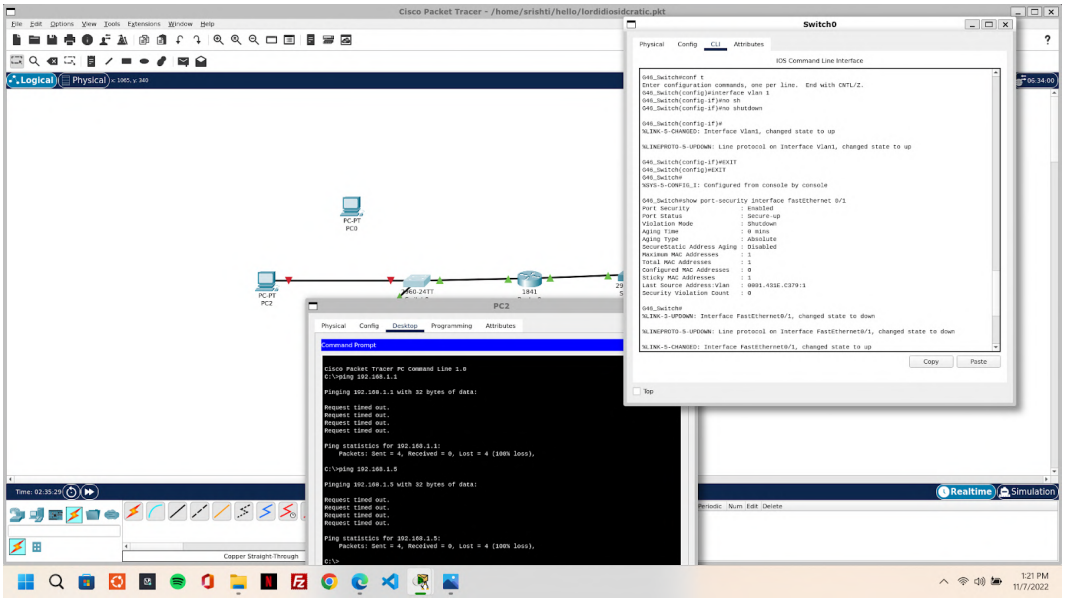
3, 4. Send ping PC0 to Switch0 and verify

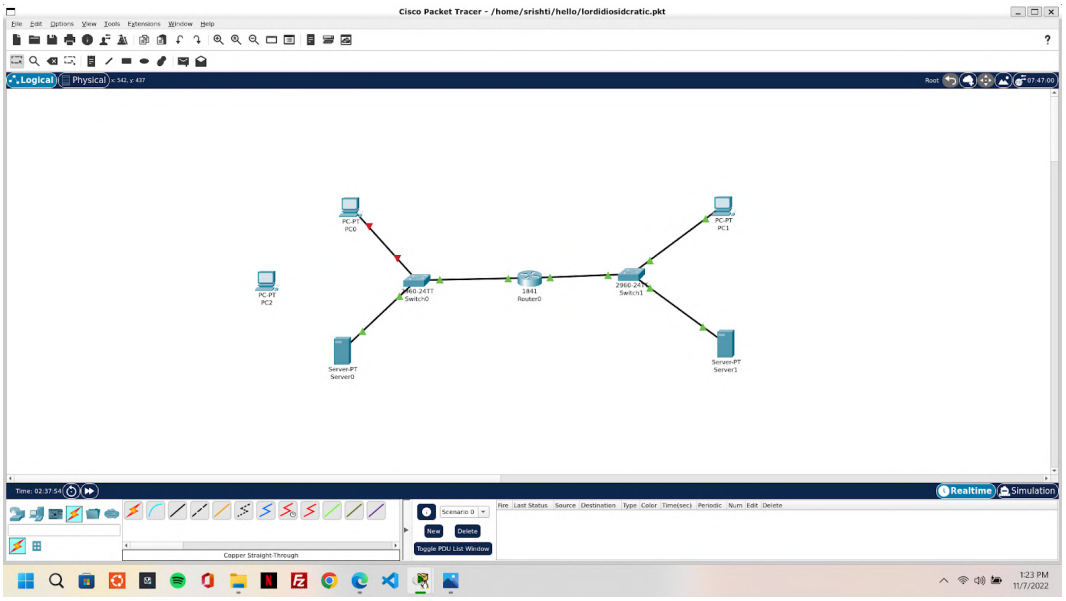


5. Remove connection fa0/1 between Switch0 and PC0 using GUI and connect PC2 to port fa0/1 to cause the port to shut down

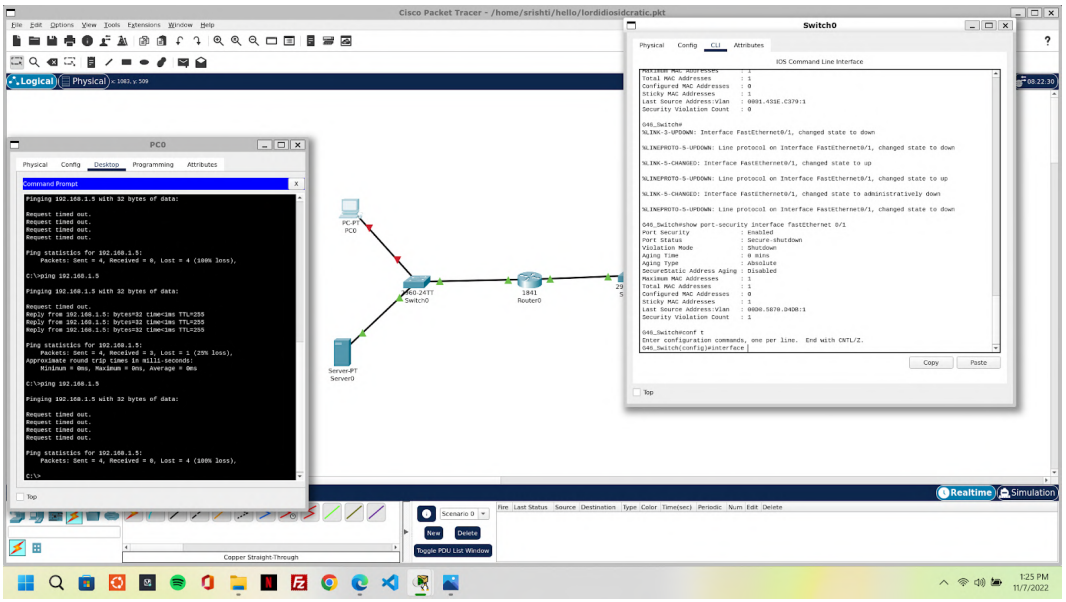


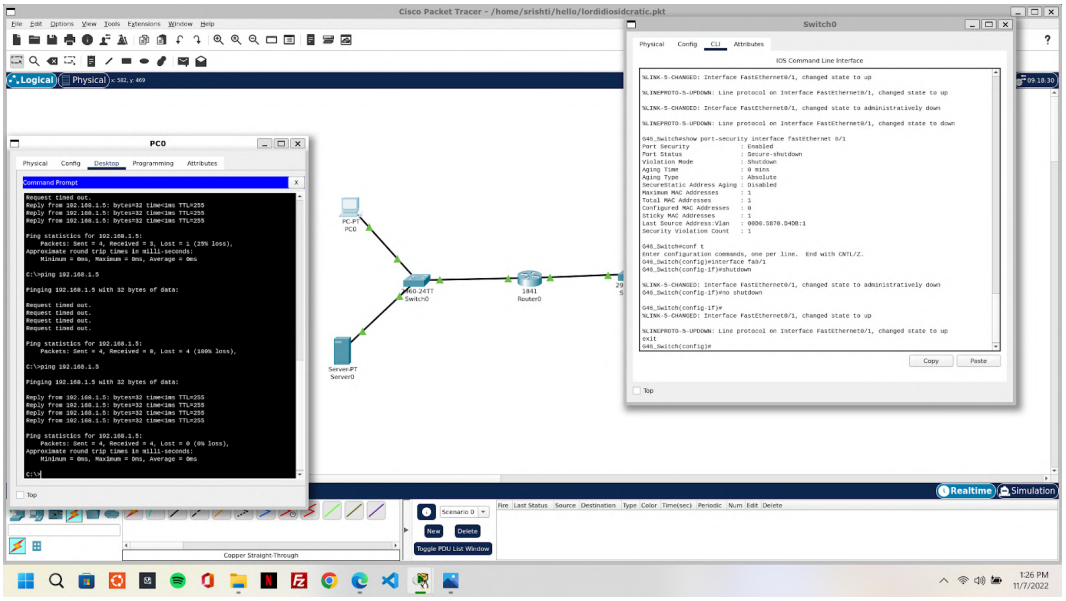
6. Viewing the fa0/1 interface shows that line protocol is down, which indicates the security violation





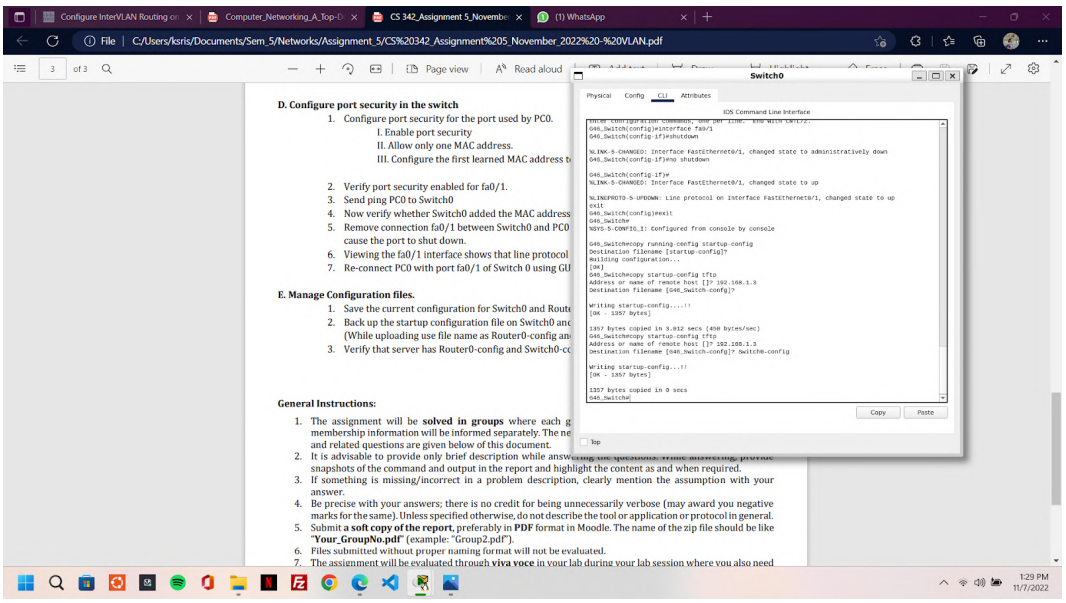
7. Re-connect PC0 with port fa0/1 of Switch 0 using GUI and re-enable the port



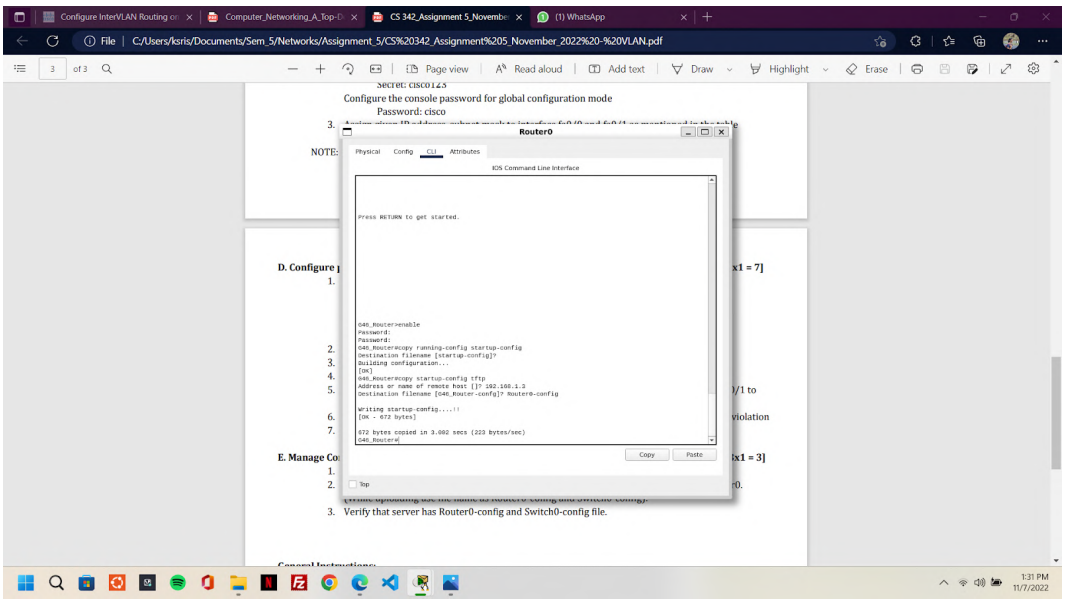


E.

1. Save the current configuration for Switch0 and Router0 to NVRAM



2. Back up the startup configuration file on Switch0 and Router0 by uploading them to Server0



3. Verify that server has Router0-config and Switch0-config file