2025

6-2 Project One Submission: Network Modification Brief

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Cyb 210
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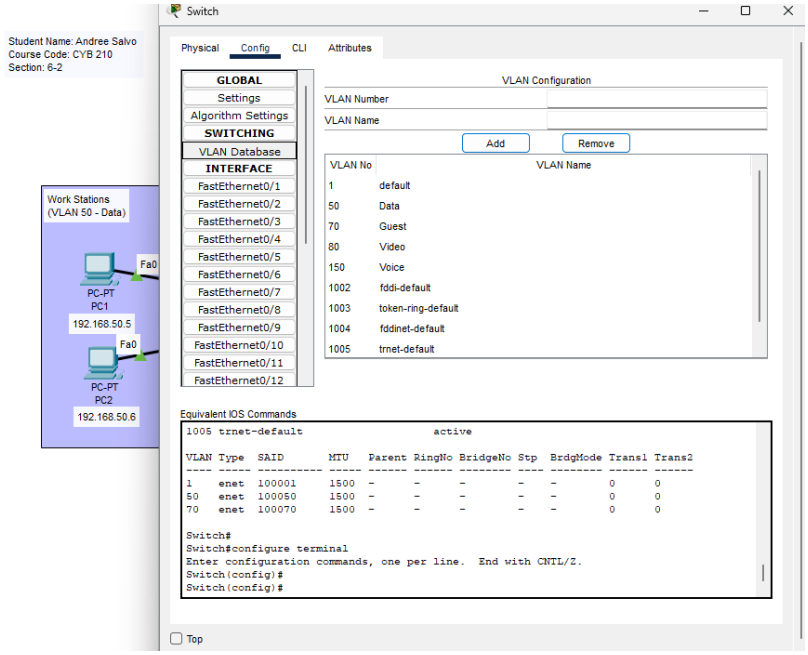
I. Network Reconfigurations

Step A: Properly configure the **VLAN** for guest and video connections

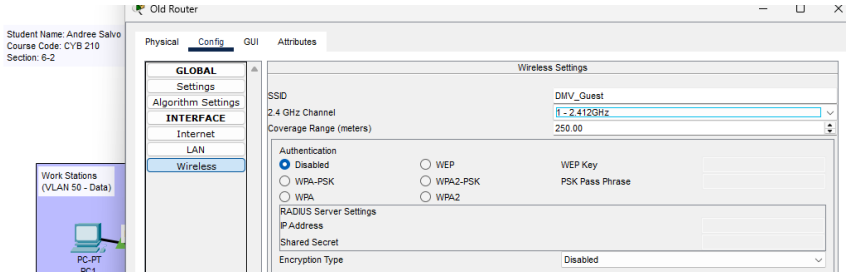


1. Opened the switch

2. Clicked VLAN Database

3. I added VLANS **Guest 70** and **Video 80. VLAN 50 and VLAN 150** were preset.

Step B: Properly configure the guest wireless network

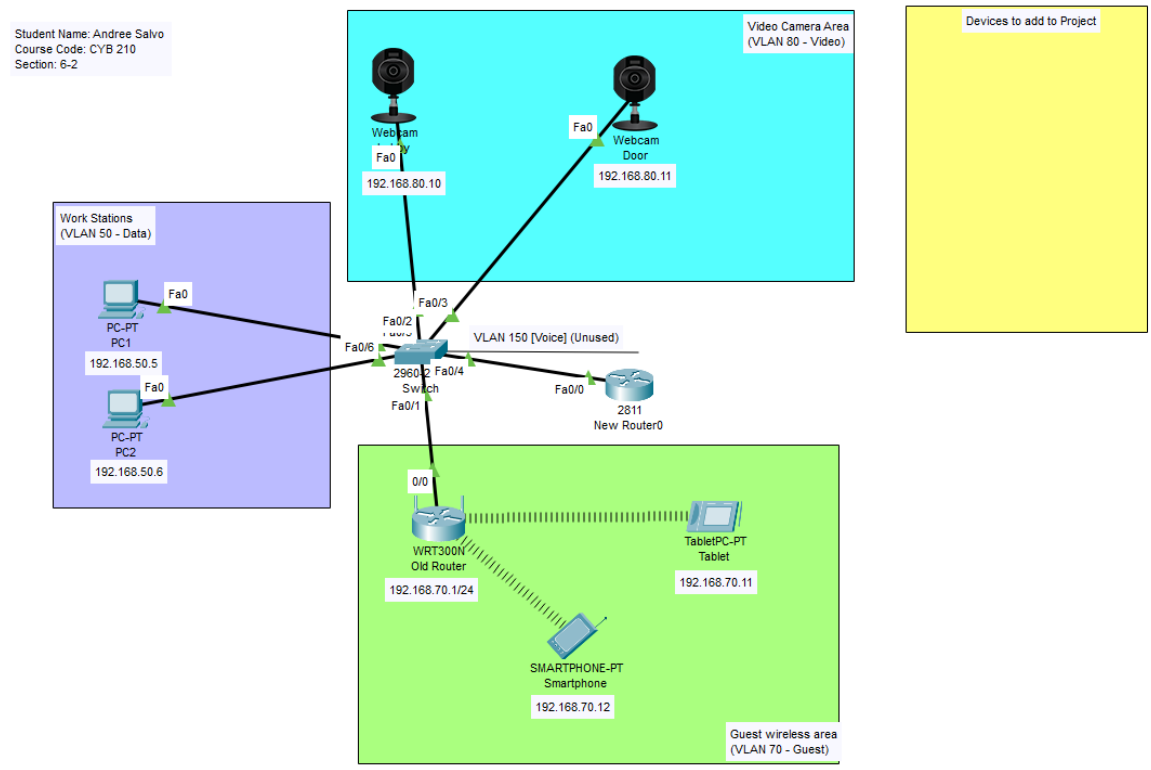


Explanation:

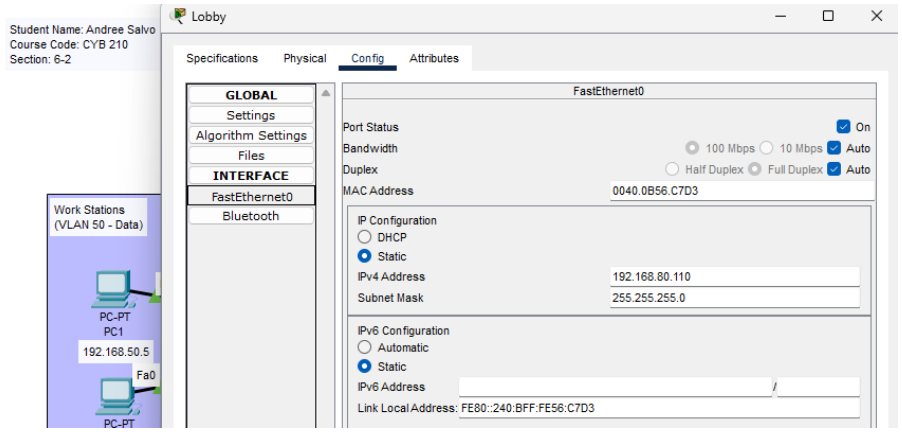
1. Opened the OLD Router
2. Click the config tab
3. Select Wireless
4. Renamed the “SSID” to “DMV_Guest”
5. Authentication > I disabled

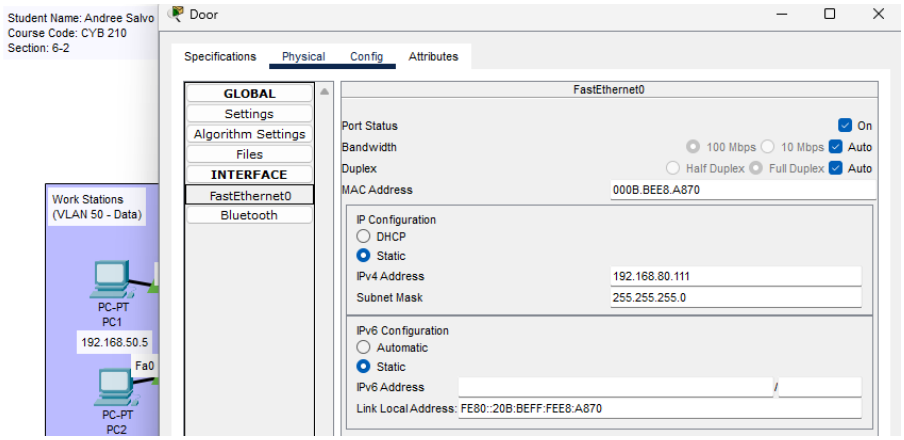
Step C: Make sure that **devices** are connected to the guest wireless network

Answer: they are connected



Step D: Make sure that cameras are connected to the video network

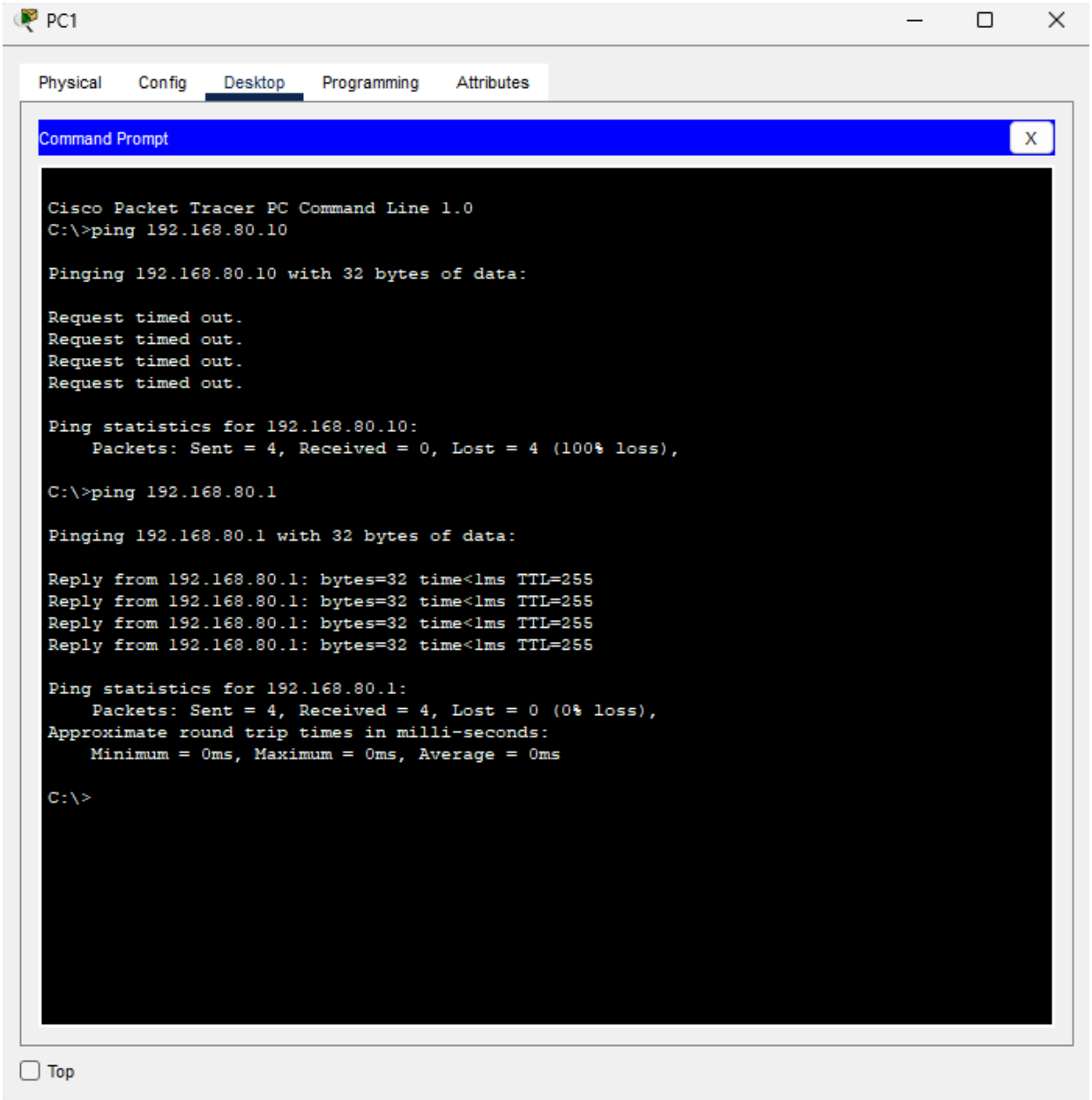


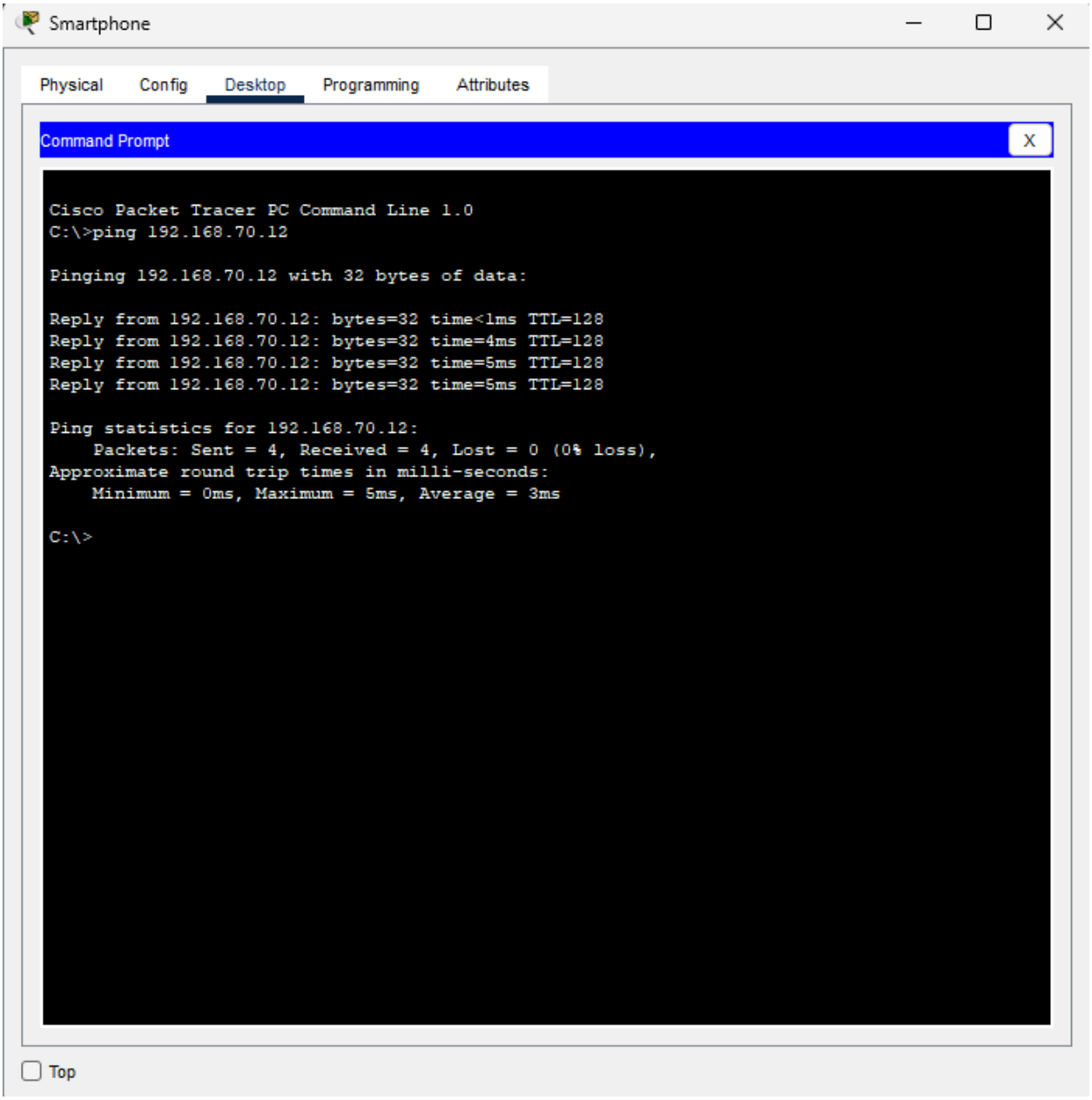


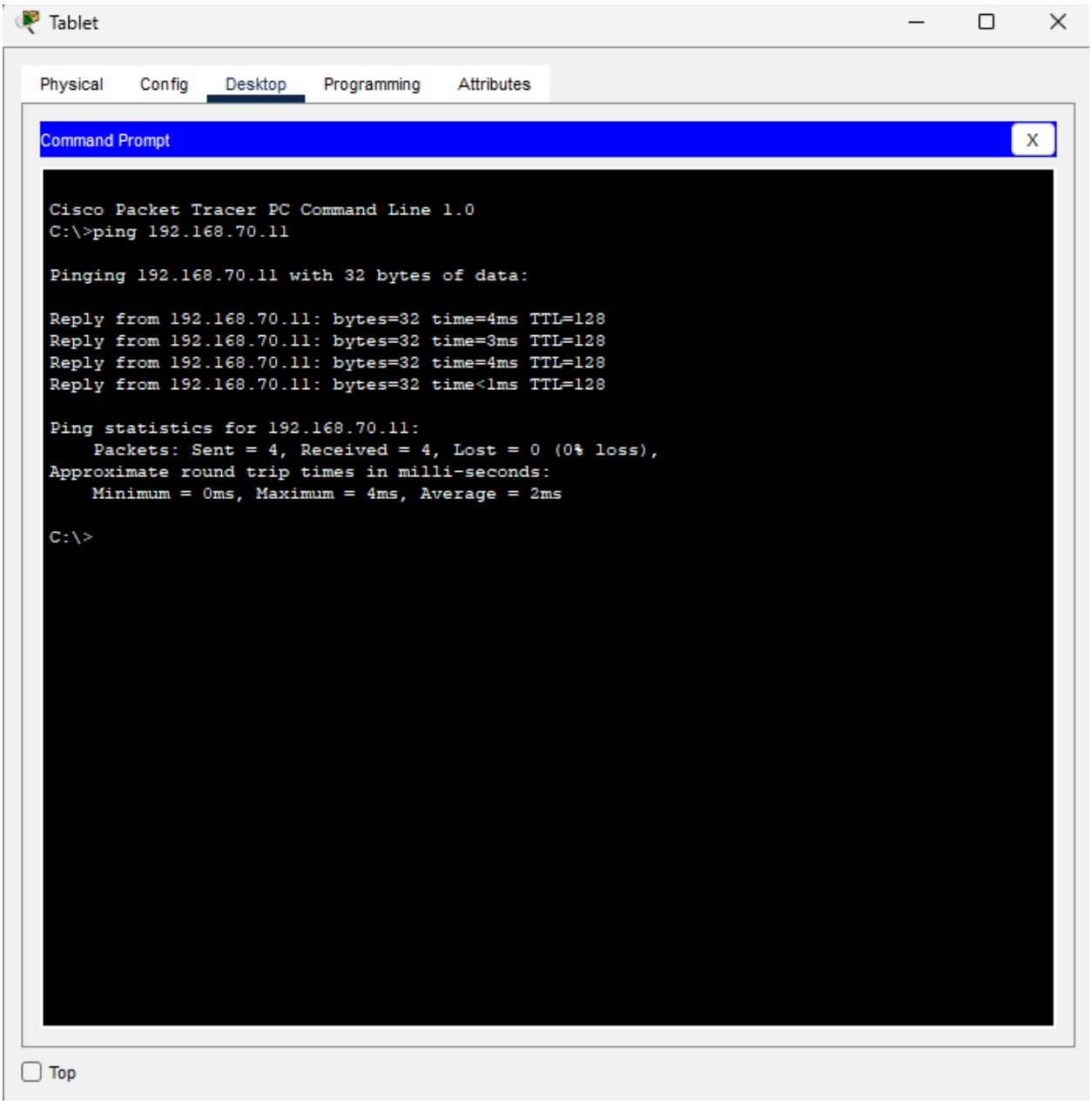
Answer: Cameras are connected!

Step E: Make sure that guest and video networks are **properly segmented, ping tests that prove you have met this project requirement.**

Answer: I pinged the cameras, and they are properly segmented!




Smartphone
Physical
Config
Desktop
Programming
Attributes
Command Prompt
X
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.70.12
Pinging 192.168.70.12 with 32 bytes of data:
Reply from 192.168.70.12: bytes=32 time<1ms TTL=128
Reply from 192.168.70.12: bytes=32 time=4ms TTL=128
Reply from 192.168.70.12: bytes=32 time=5ms TTL=128
Reply from 192.168.70.12: bytes=32 time=5ms TTL=128
Ping statistics for 192.168.70.12:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 5ms, Average = 3ms
C:\>
Top



NOTE: I added a new router in Cisco Packet Tracer to enable communication between all VLANs.

```
Device Name: New Router0
Custom Device Model: 2811 IOS15
Hostname: Router

Port                Link   VLAN   IP Address         IPv6 Address                              MAC Address
FastEthernet0/0     Up     --     <not set>          <not set>                                 00D0.97B9.B701
FastEthernet0/0.50  Up     --     192.168.50.1/24    <not set>                                 00D0.97B9.B701
FastEthernet0/0.70  Up     --     192.168.70.1/24    <not set>                                 00D0.97B9.B701
FastEthernet0/0.80  Up     --     192.168.80.1/24    <not set>                                 00D0.97B9.B701
FastEthernet0/1     Down   --     <not set>          <not set>                                 00D0.97B9.B702
Vlan1               Down   1      <not set>          <not set>                                 00D0.BC82.D5D7

Physical Location: Intercity > Home City > Corporate Office > Main Wiring Closet > Rack > Router0
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I. **Explanation of Network Segregation**

A. Describe how network traffic was segmented to meet the project requirements for guest and video connections.

Explanation: The switch segmented the network traffic by multiple VLAN databases. (1) VLAN 70, VLAN 70 is to be used for the guest, which connects to a wireless router, smartphone, and tablet. (2) VLAN 80 is for video. There were only two webcams for this scenario: "Lobby" and " Door." (3) Lastly, VLAN 50 and 150 were already preset and were already segmented by two PCs. PC1 and PC2. VLAN 50 is data, and VLAN 150 is Voice. All four of these VLANs connect together by the switch, and all four work together differently.

B. Explain how you considered the scalability of the guest wireless network in order to meet the project requirements (IP addressing, leasing, and so on).

Explanation: The scalability of meeting the project requirements allows up to 70 users to connect to a wireless network through the DHCP IP address. I did this from the Router's GUI tab. Although the DMV may be slow, guests are not there for longer than 4 hours and cannot be connected to the guest network for a long.