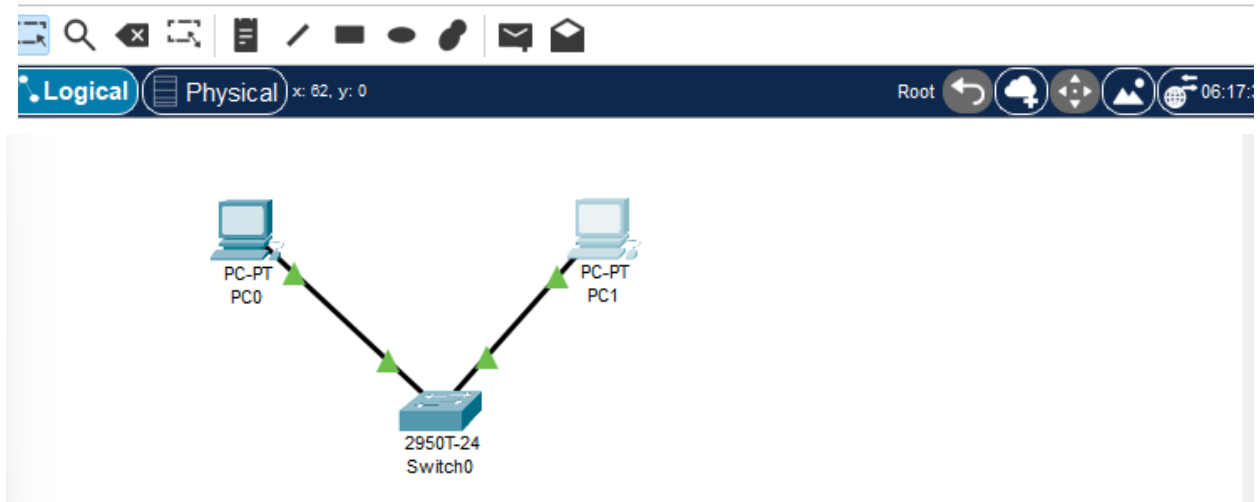
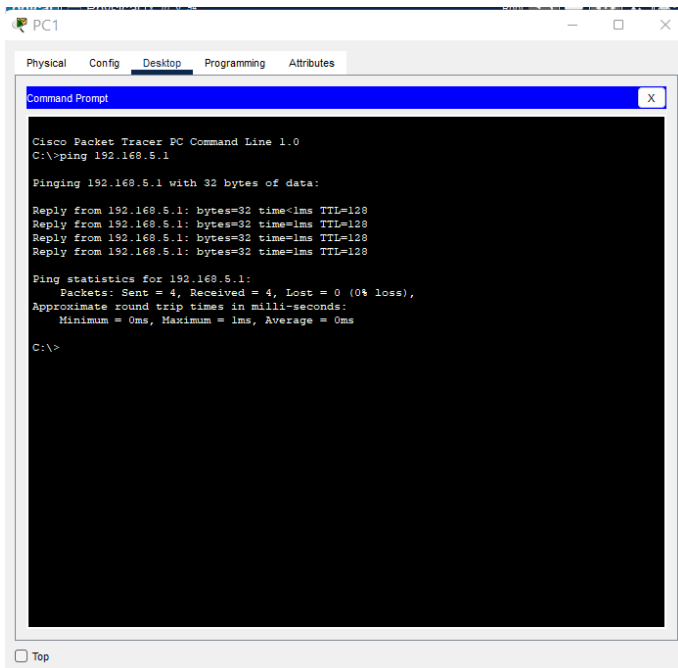


NETWORK TOPOLOGY (LOGICAL)



SUCCESSFUL PING FROM PC TO PC



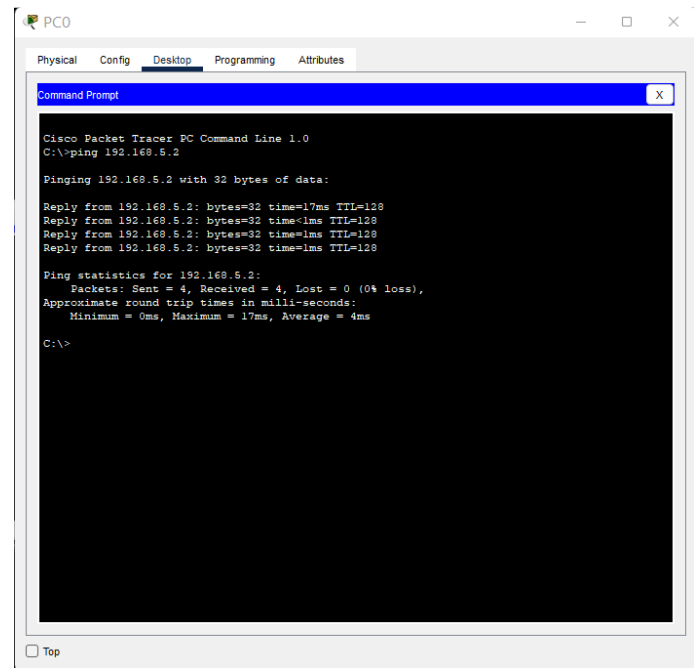
```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.5.1

Pinging 192.168.5.1 with 32 bytes of data:

Reply from 192.168.5.1: bytes=32 time<1ms TTL=128
Reply from 192.168.5.1: bytes=32 time<1ms TTL=128
Reply from 192.168.5.1: bytes=32 time<1ms TTL=128
Reply from 192.168.5.1: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.5.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>
```



```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.5.2

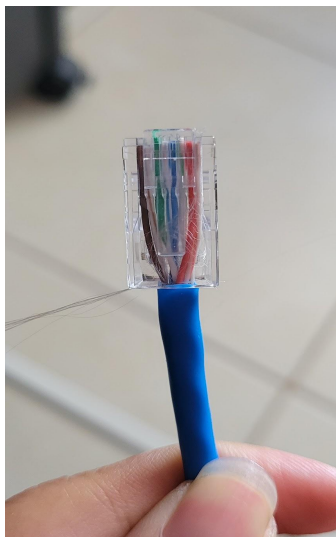
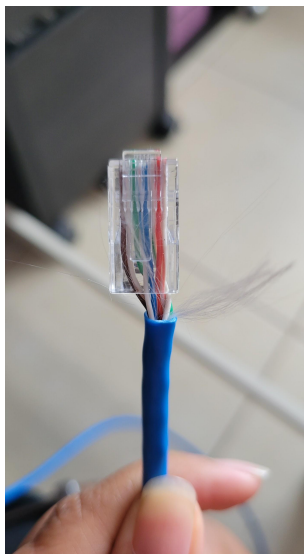
Pinging 192.168.5.2 with 32 bytes of data:

Reply from 192.168.5.2: bytes=32 time=17ms TTL=128
Reply from 192.168.5.2: bytes=32 time<1ms TTL=128
Reply from 192.168.5.2: bytes=32 time<1ms TTL=128
Reply from 192.168.5.2: bytes=32 time<1ms TTL=128

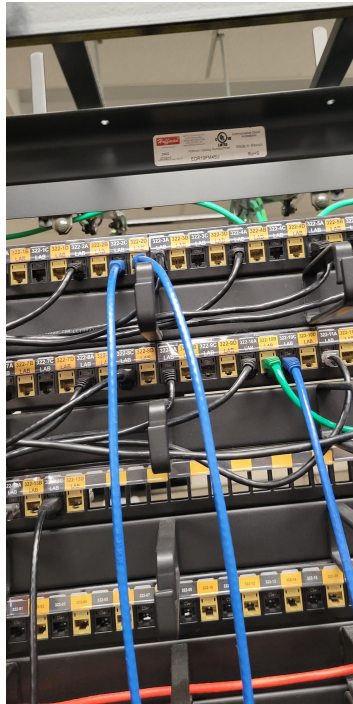
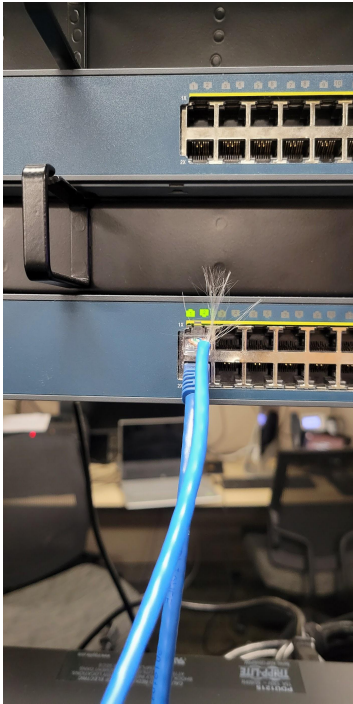
Ping statistics for 192.168.5.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 17ms, Average = 4ms

C:\>
```

Both Connectors on CAT5e cabling



Cable plugged in to equipment



SUCCESSFUL PING FROM PC TO PC

```
Command Prompt
Subnet Mask . . . . . : 255.255.255.0
Default Gateway . . . . . :

C:\Users\Student>ping 192.168.5.2

Pinging 192.168.5.2 with 32 bytes of data:
Reply from 192.168.5.2: bytes=32 time<1ms TTL=128
Reply from 192.168.5.2: bytes=32 time<1ms TTL=128
Reply from 192.168.5.2: bytes=32 time<1ms TTL=128
Reply from 192.168.5.2: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.5.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Users\Student>ping 192.168.5.3

Pinging 192.168.5.3 with 32 bytes of data:
Reply from 192.168.5.3: bytes=32 time<1ms TTL=64
Reply from 192.168.5.3: bytes=32 time<1ms TTL=64
Reply from 192.168.5.3: bytes=32 time<1ms TTL=64
Reply from 192.168.5.3: bytes=32 time<1ms TTL=64

Ping statistics for 192.168.5.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Users\Student>
```

```
student -- -bash -- 80x24
round-trip min/avg/max/stddev = 0.864/1.134/1.251/0.125 ms
Students-iMac-6:~ student$ ping 192.168.5.2
PING 192.168.5.2 (192.168.5.2): 56 data bytes
64 bytes from 192.168.5.2: icmp_seq=0 ttl=128 time=1.142 ms
64 bytes from 192.168.5.2: icmp_seq=1 ttl=128 time=1.217 ms
64 bytes from 192.168.5.2: icmp_seq=2 ttl=128 time=0.845 ms
64 bytes from 192.168.5.2: icmp_seq=3 ttl=128 time=1.248 ms
64 bytes from 192.168.5.2: icmp_seq=4 ttl=128 time=1.189 ms
64 bytes from 192.168.5.2: icmp_seq=5 ttl=128 time=1.183 ms
64 bytes from 192.168.5.2: icmp_seq=6 ttl=128 time=1.208 ms
64 bytes from 192.168.5.2: icmp_seq=7 ttl=128 time=1.128 ms
64 bytes from 192.168.5.2: icmp_seq=8 ttl=128 time=1.142 ms
64 bytes from 192.168.5.2: icmp_seq=9 ttl=128 time=1.169 ms
64 bytes from 192.168.5.2: icmp_seq=10 ttl=128 time=0.848 ms
64 bytes from 192.168.5.2: icmp_seq=11 ttl=128 time=1.209 ms
64 bytes from 192.168.5.2: icmp_seq=12 ttl=128 time=1.212 ms
64 bytes from 192.168.5.2: icmp_seq=13 ttl=128 time=1.156 ms
64 bytes from 192.168.5.2: icmp_seq=14 ttl=128 time=1.249 ms
64 bytes from 192.168.5.2: icmp_seq=15 ttl=128 time=1.275 ms
64 bytes from 192.168.5.2: icmp_seq=16 ttl=128 time=1.280 ms
64 bytes from 192.168.5.2: icmp_seq=17 ttl=128 time=1.280 ms
^C
--- 192.168.5.2 ping statistics ---
18 packets transmitted, 18 packets received, 0.0% packet loss
```

LAB 2 Questions:

1) What are the Layers of the OSI Model?

The layers of the OSI Model is the Physical Layer, Data Link layer, Network Layer, Transport Layer, Session Layer, Presentation Layer, and Application Layer.

2) Name 3 types of physical layer networking connections?

One type of physical layer networking connection is a wired connection, which is any connection that involves cables in order to transmit data. For example, the lab we worked on today involves the cat5e cable for our two PC's to communicate. Another type of connection in the physical layer is the wireless connections. For example, laptops can connect to the internet through a router and a modem. A third type of wireless connection is the use of bluetooth.

3) What type of pinout was used to create the Patch Cable for this exercise?

We used the RJ45 pinout to create the Patch Cable.

4) How do you create a crossover cable and why would you need one?

To create a cross over cable all you need is a Cat5e cable, a crimping tool, and two RJ45 plugs. You would need one to connect two PCs together through a switch or router.

5) What is the Ping Command and how does the Ping Command verify connectivity?

The Ping Command sends out a signal to a specified address and requests the target to echo the signal back by sending a reply packet. This verifies connectivity since connectivity is required for the target address to reply back. If connectivity isn't available this command will let us know as well by showing a failed request.