

Name: Lawton Pittenger

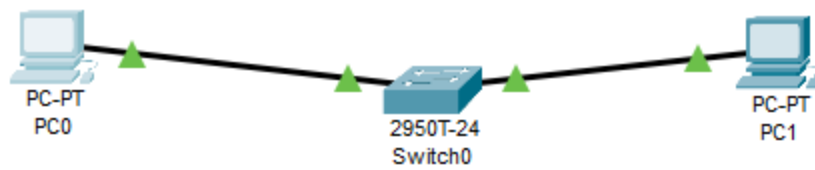
Assignment: Lab 2

Course: CNT-4703

LAB COMPLETED REMOTELY

(I still created my own T-568B cable with my own RJ-45 connectors and crimper, photo below.)





PC0

Physical Config Desktop Programming Attributes

Command Prompt

```
C:\>ipconfig

FastEthernet0 Connection: (default port)

    Connection-specific DNS Suffix...:
    Link-local IPv6 Address . . . . .: FE80::20B:BEFF:FEB5:127C
    IPv6 Address . . . . .: ::
    IPv4 Address. . . . .: 192.168.5.1
    Subnet Mask . . . . .: 255.255.255.0
    Default Gateway . . . . .: ::
                                0.0.0.0

Bluetooth Connection:

    Connection-specific DNS Suffix...:
    Link-local IPv6 Address . . . . .: ::
    IPv6 Address . . . . .: ::
    IPv4 Address. . . . .: 0.0.0.0
    Subnet Mask . . . . .: 0.0.0.0
    Default Gateway . . . . .: ::
                                0.0.0.0

C:\>ping 192.168.5.2

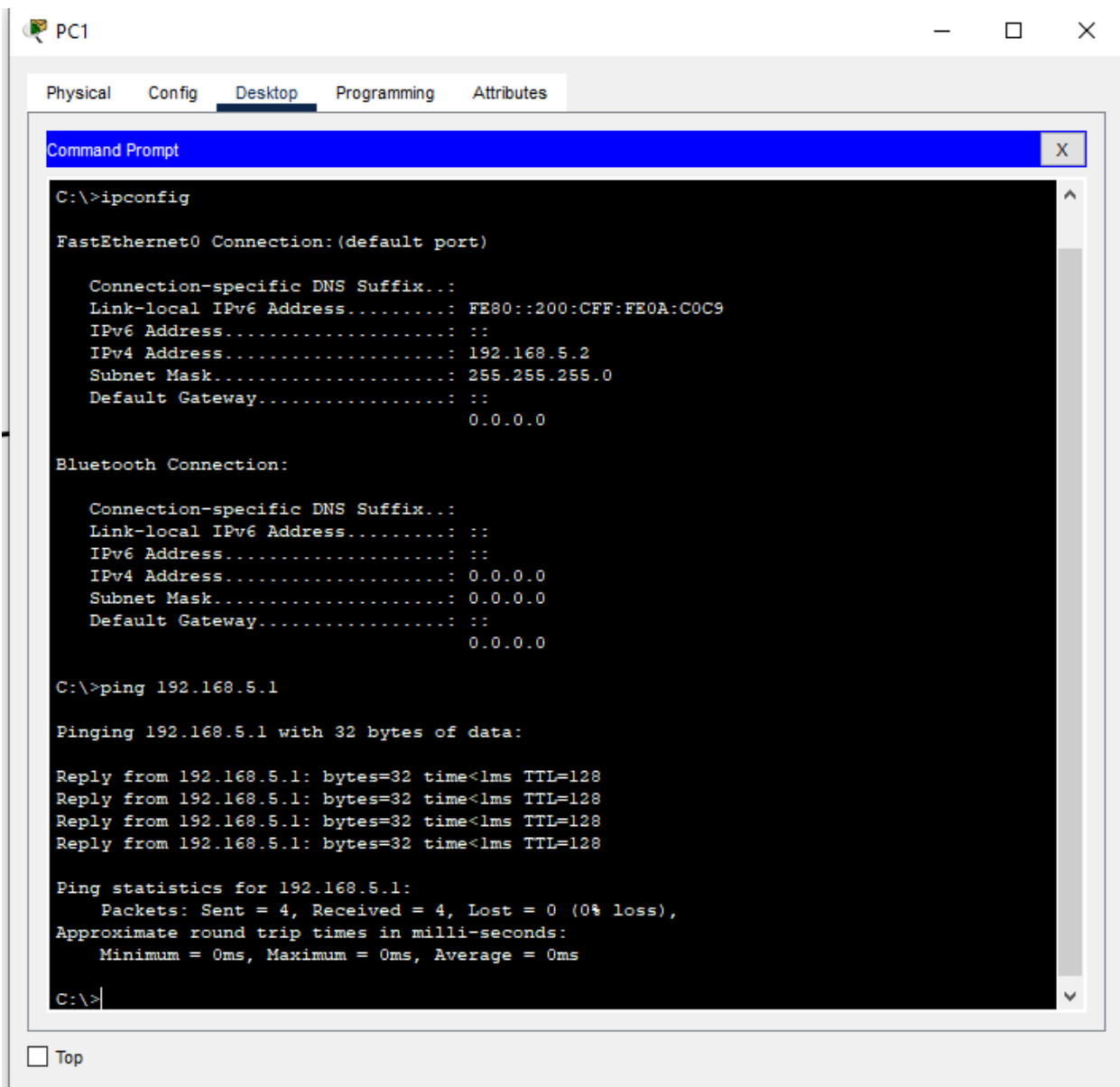
Pinging 192.168.5.2 with 32 bytes of data:

Reply from 192.168.5.2: bytes=32 time<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:\>
```

☐ Top



1. What are the Layers of the OSI Model?
  - Application Layer
    - Human-computer interaction layer, where applications can access the network services.
  - Presentation Layer
    - Ensures that data is in a usable format and is where data encryption occurs.
  - Session Layer
    - Maintains connections and is responsible for controlling ports and sessions.
  - Transport Layer
    - Transmits data using transmissions protocols including TCP and UDP.
  - Network Layer
    - Decides which physical path the data will take.
  - Data Link Layer
    - Defines the format of data on the network.
  - Physical Layer
    - Transmits raw bit stream over the physical medium.
2. Name 3 types of physical layer networking connections?
  - Copper Cables
  - Fiber-Optic Cables
  - Wireless
3. What type of pinout was used to create the Patch Cable for this exercise?
  - T-568B
4. How do you create a crossover cable and why would you need one?
  - You create a crossover cable by wiring one end of an ethernet cable as T568A and the other side as T568B. Crossover cables are the cables that are used to connect two devices of same type.
    - Example: Desktop PC to Desktop PC
5. What is the Ping Command and how does the Ping Command verify connectivity?
  - The Ping command is a computer network administration software utility used to test the reachability of a host on an Internet Protocol (IP) network. It measures the round-trip time for messages sent from the originating host to a destination computer that are echoed back to the source. The Ping command is a tool used to verify network connectivity between two systems. It works by sending an Internet Control Message Protocol (ICMP) Echo Request packet to the specified host and then waiting for a response. If the host receives the packet, it will respond with an ICMP Echo Reply packet. The time it takes for the response to be received is known as the “ping time”.
  - Ping can be used to verify that a host is up and running on a network. It is often used to test the reachability of a given host on the network and to measure the round trip time for messages sent from the originating host to a destination host. It is also used to check if the network is functioning properly and to diagnose problems on the network.

- A ping command is a useful tool for verifying network connectivity and can help diagnose problems on the network. It is important to note that it is not a guarantee of connectivity, as it only tests the reachability of a given host on the network.