

COMPUTER NETWORKS

Modul 2



Created by:

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INFORMATION TECHNOLOGY

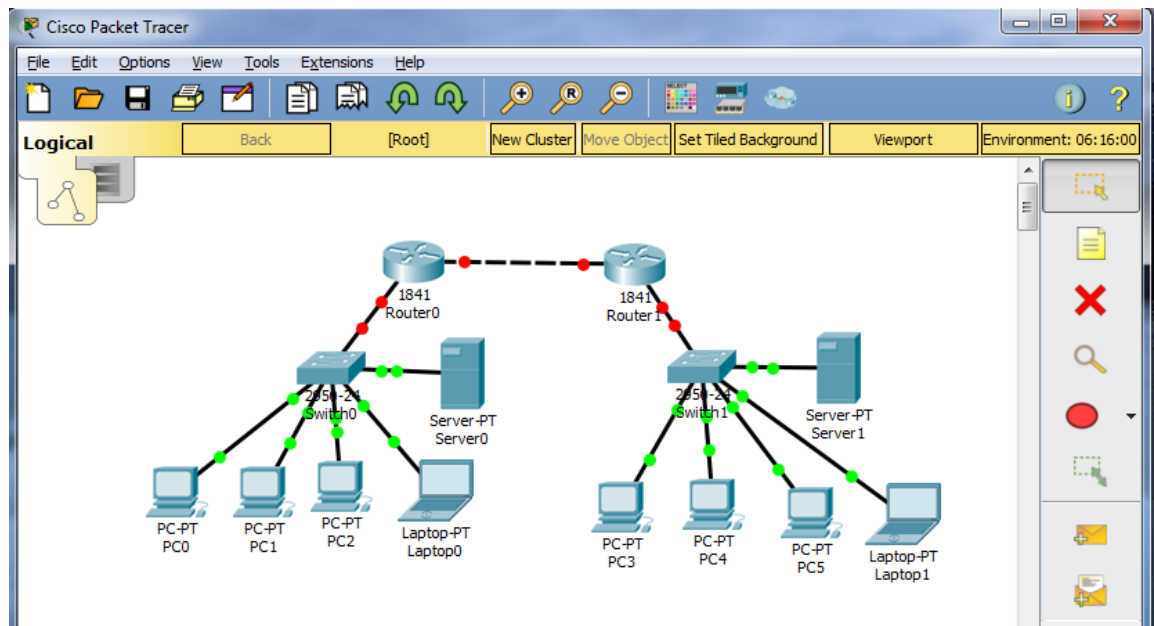
FACULTY OF COMMUNICATION AND INFORMATICS

MUHAMMADIYAH UNIVERSITY OF SURAKARTA

2020

Asisten Lab : Salsa Sasmita

➤ Activity 1

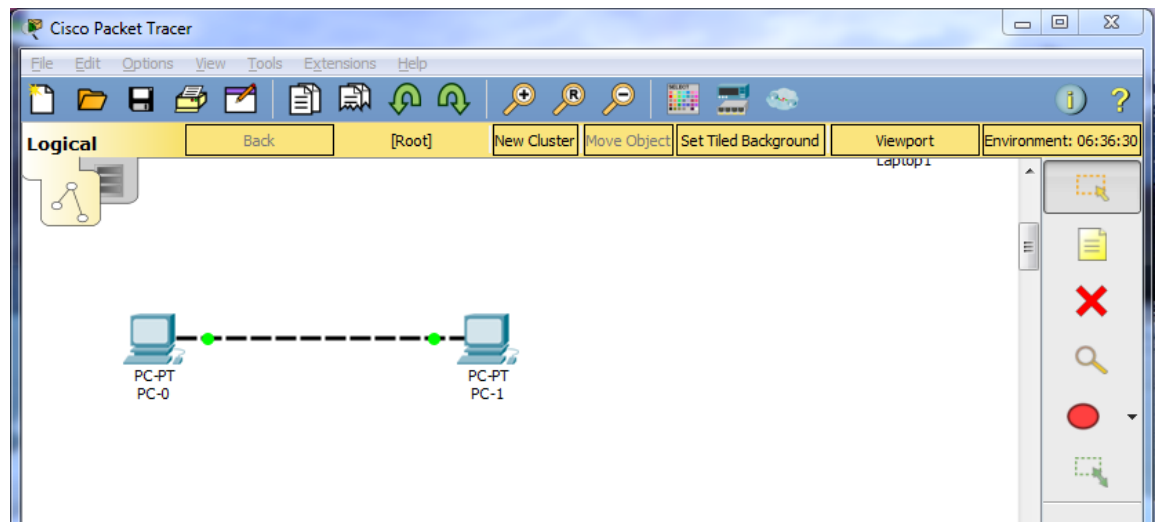


Explanation :

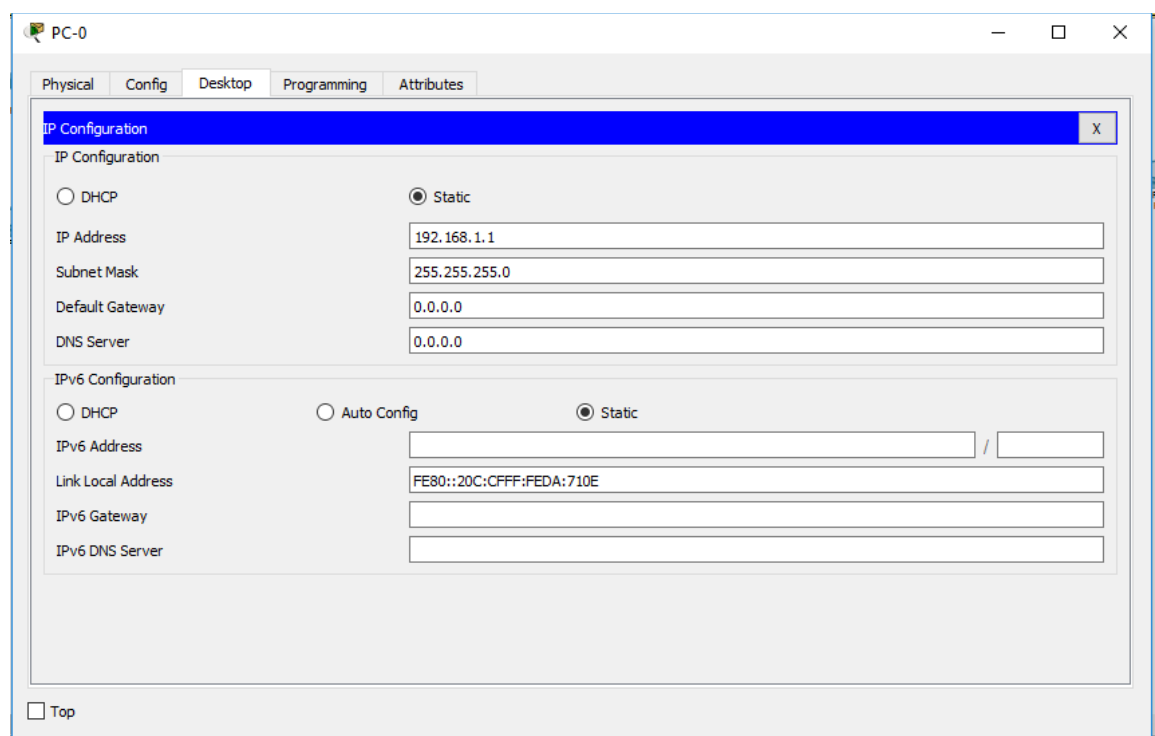
- The red indicator light indicates that the cable is not connected or an error has occurred.
- The orange indicator light indicates that an installation process or recognition device is being connected.
- The green indicator light indicates that the cable has successfully connected devices with each other.

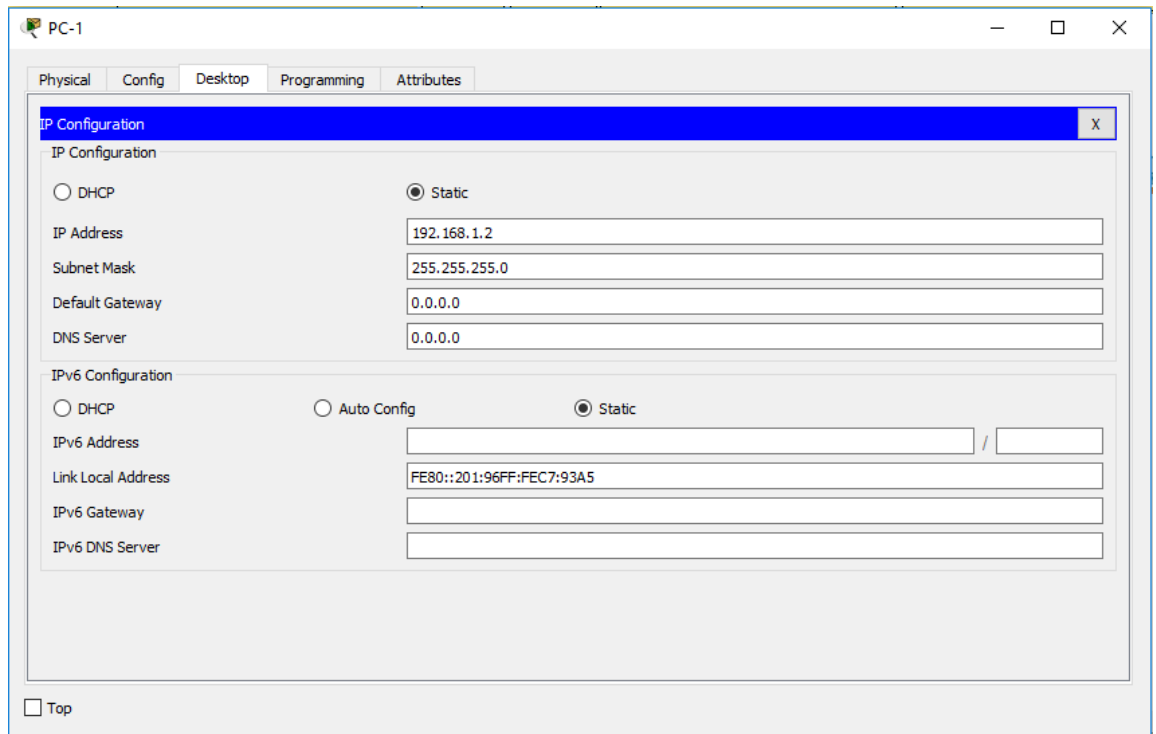
➤ Activity 2

- **Circuit Design**

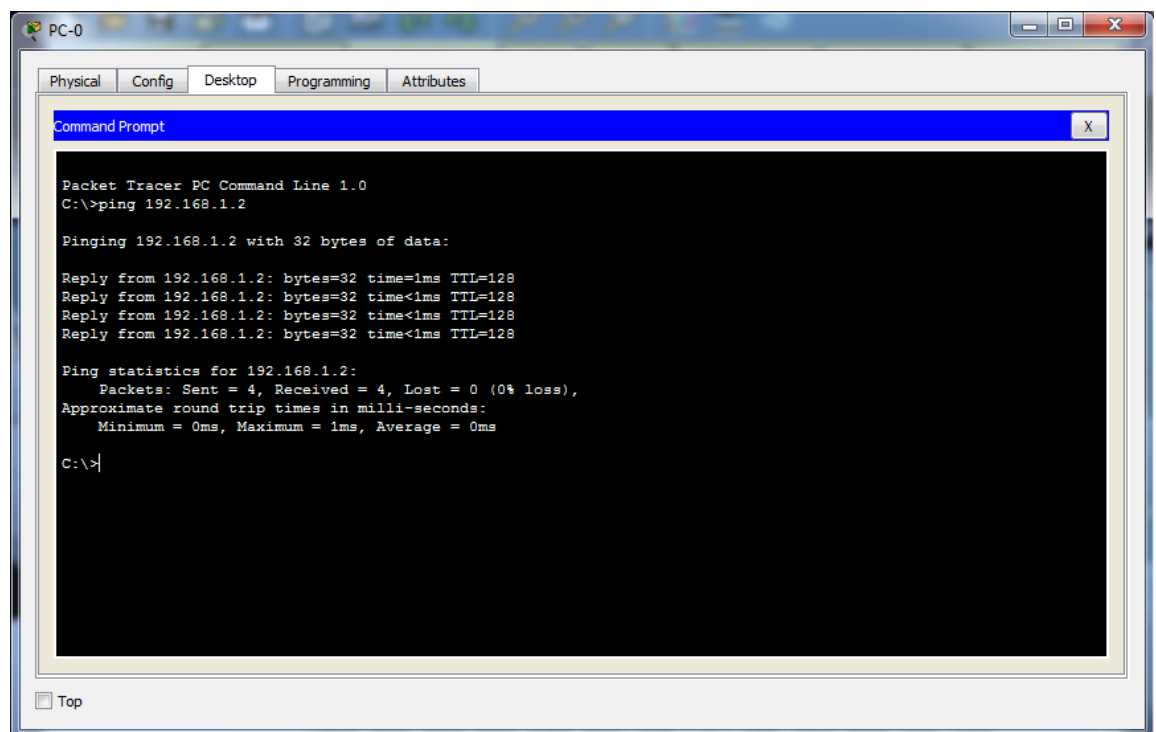


- **IP Configuration**



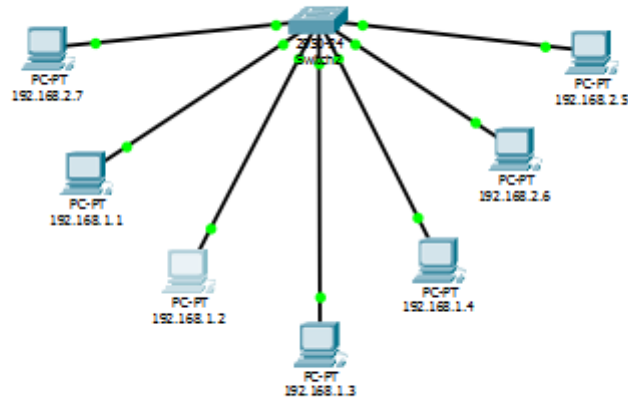


- **Checking connection**



➤ Activity 3

- **Circuit design**



- **Give IP Address (success)**

192.168.1.1

Physical Config Desktop Programming Attributes

IP Configuration

IP Configuration

☐ DHCP ☒ Static

IP Address: 192.168.1.1

Subnet Mask: 255.255.255.0

Default Gateway: 0.0.0.0

DNS Server: 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

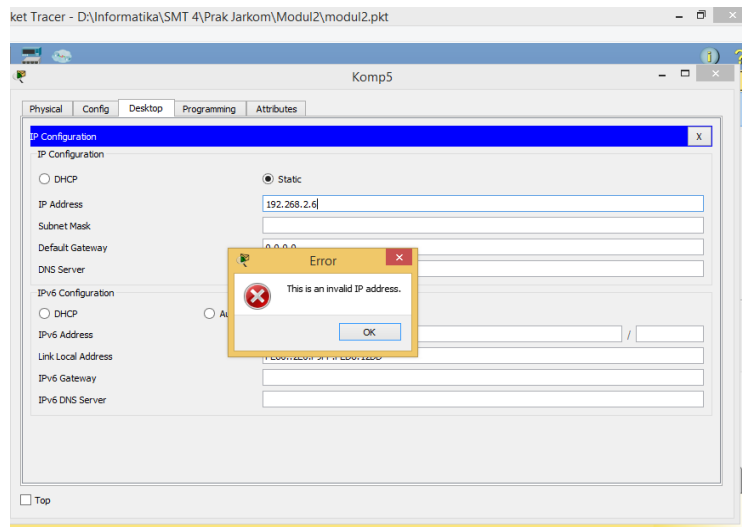
Link Local Address: FE80::20D:BDF:FE65:76E0

IPv6 Gateway:

IPv6 DNS Server:

☐ Top

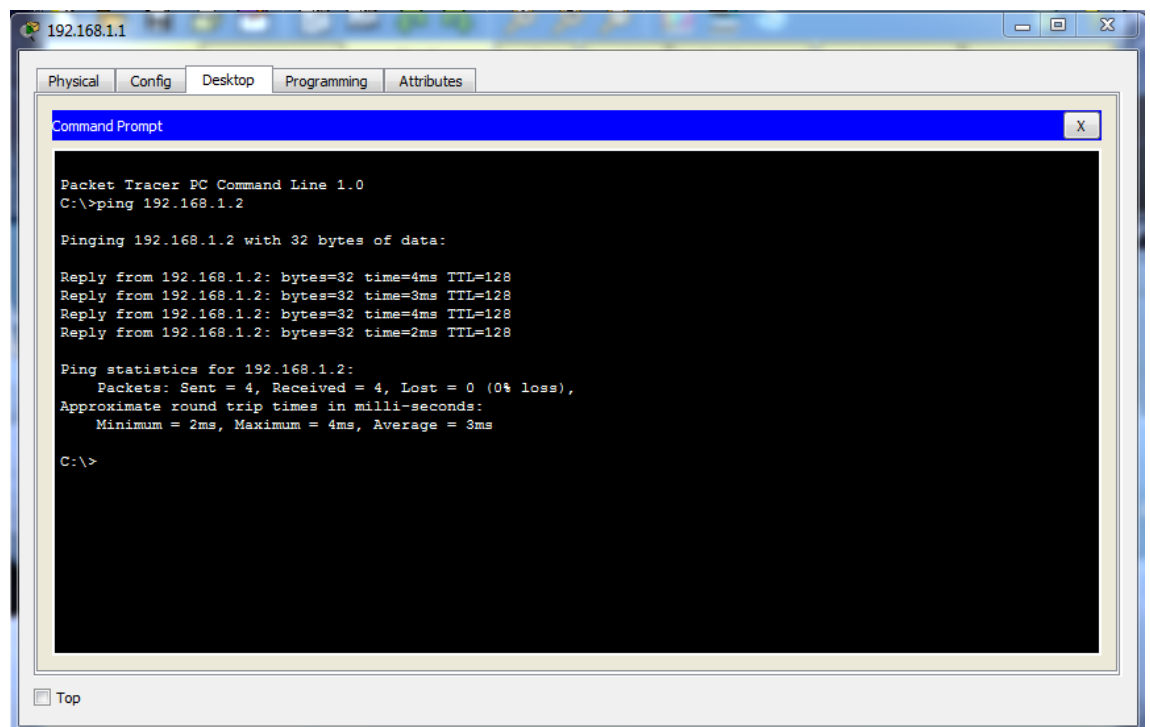
- **Give IP Address (not success)**



Explanation :

The screenshot above shows an error because the ipconfig is too large, which is 268, while the maximum ip is 255.

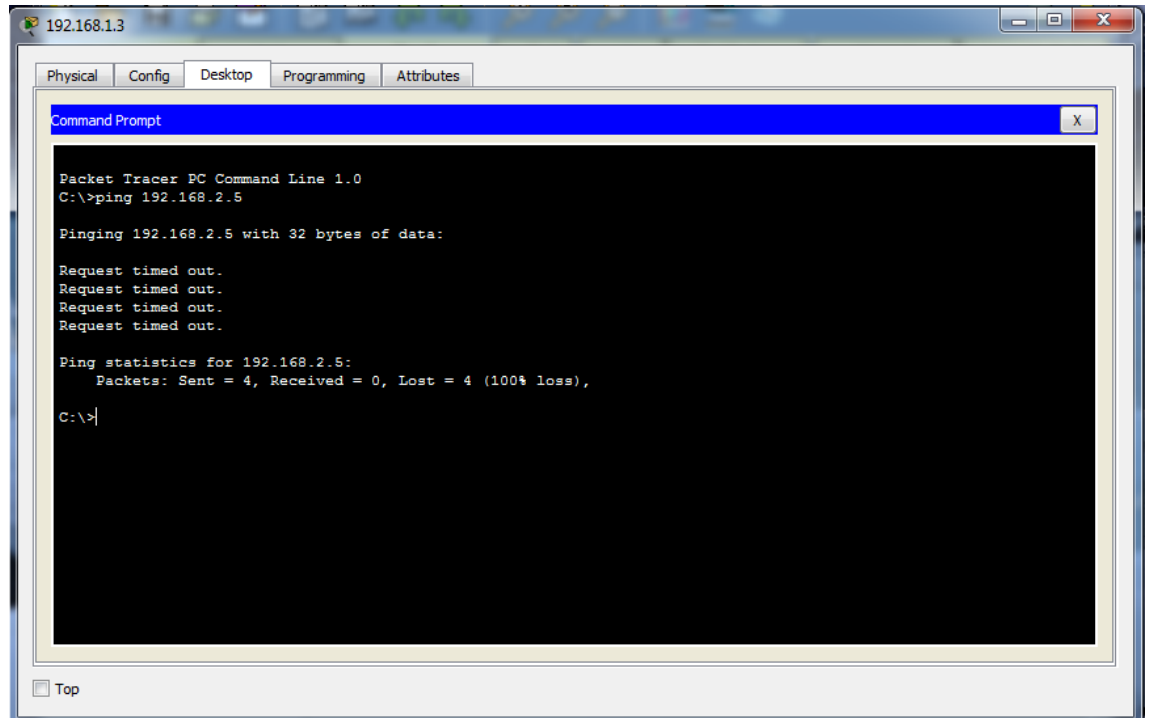
a) PC 1 to PC 2



Explanation :

PC1 to PC2 can be connected because they are on one network.

b) PC 3 to PC 5



Explanation :

PC1 to PC2 can be connected because they are on one network.

➤ Activity 4

- Circuit design



- Ping between the two PCs

The screenshot shows a Packet Tracer PC Command Prompt window for PC15. The window has tabs for Physical, Config, Desktop, Programming, and Attributes. The Command Prompt shows the following text:

```
Packet Tracer PC Command Line 1.0
C:\>
ping 192.163.123.2

Pinging 192.163.123.2 with 32 bytes of data:

Reply from 192.163.123.2: bytes=32 time=39ms TTL=128
Reply from 192.163.123.2: bytes=32 time=11ms TTL=128
Reply from 192.163.123.2: bytes=32 time=10ms TTL=128
Reply from 192.163.123.2: bytes=32 time=8ms TTL=128

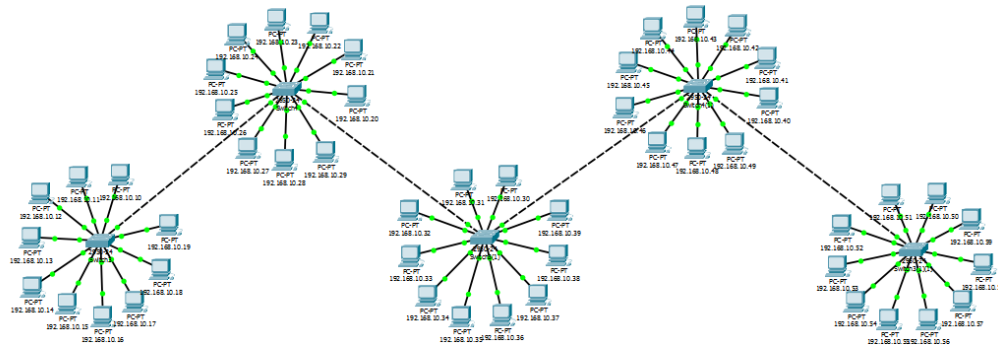
Ping statistics for 192.163.123.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 8ms, Maximum = 39ms, Average = 17ms

C:\>|
```

At the bottom left of the window, there is a checkbox labeled 'Top'.

➤ ASSIGNMENT

- Circuit design



- Check the connection by ping from the IP computer 192.168.10.10 to another computer with a different connection switch

Try to ping 192.168.10.10 to 192.168.10.20

```
Packet Tracer PC Command Line 1.0
C:\>ping 192.168.10.20

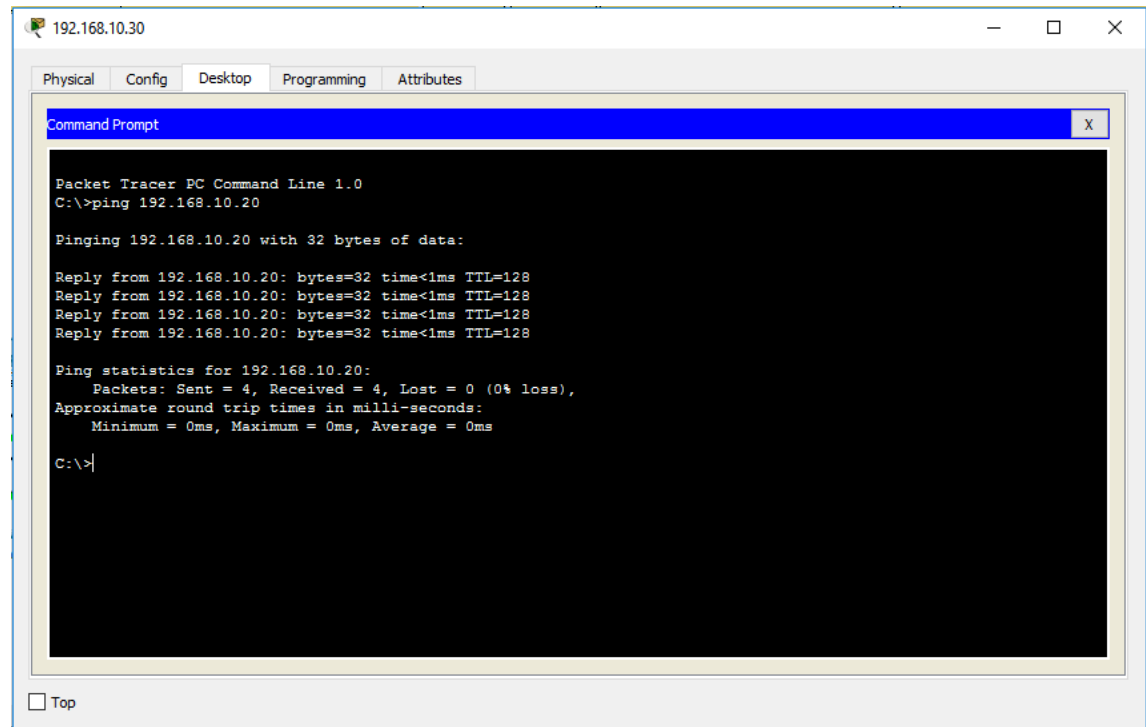
Pinging 192.168.10.20 with 32 bytes of data:

Reply from 192.168.10.20: bytes=32 time<1ms TTL=128
Reply from 192.168.10.20: bytes=32 time<1ms TTL=128
Reply from 192.168.10.20: bytes=32 time<1ms TTL=128
Reply from 192.168.10.20: bytes=32 time<1ms TTL=128

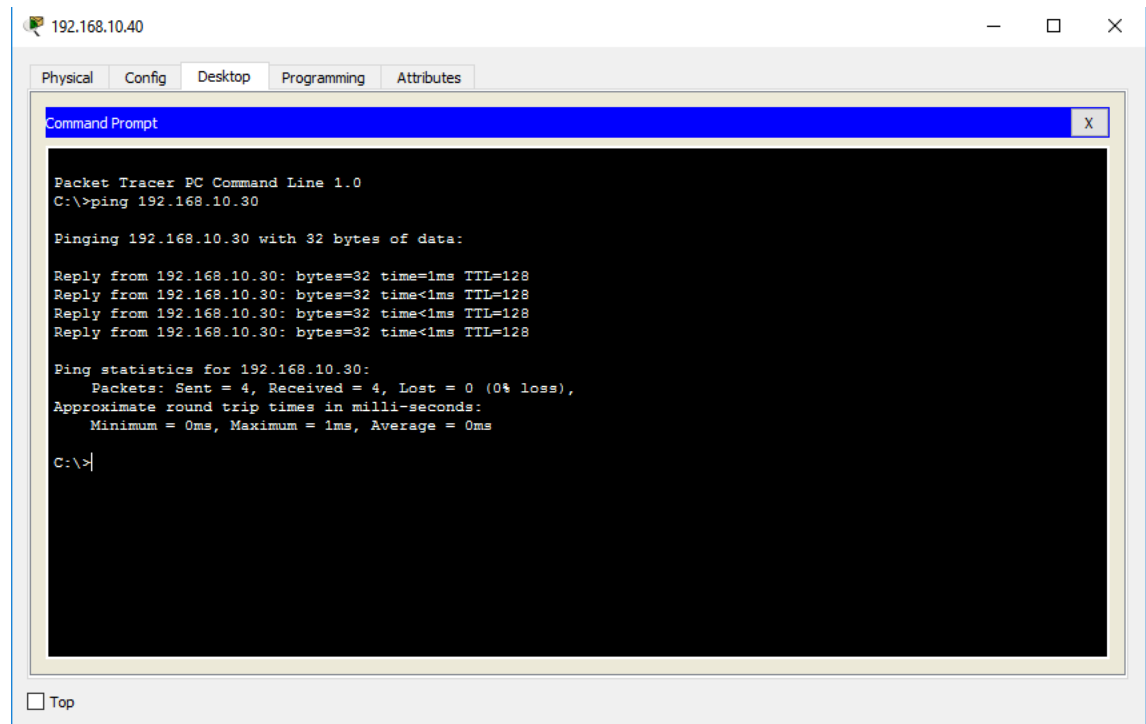
Ping statistics for 192.168.10.20:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>|
```

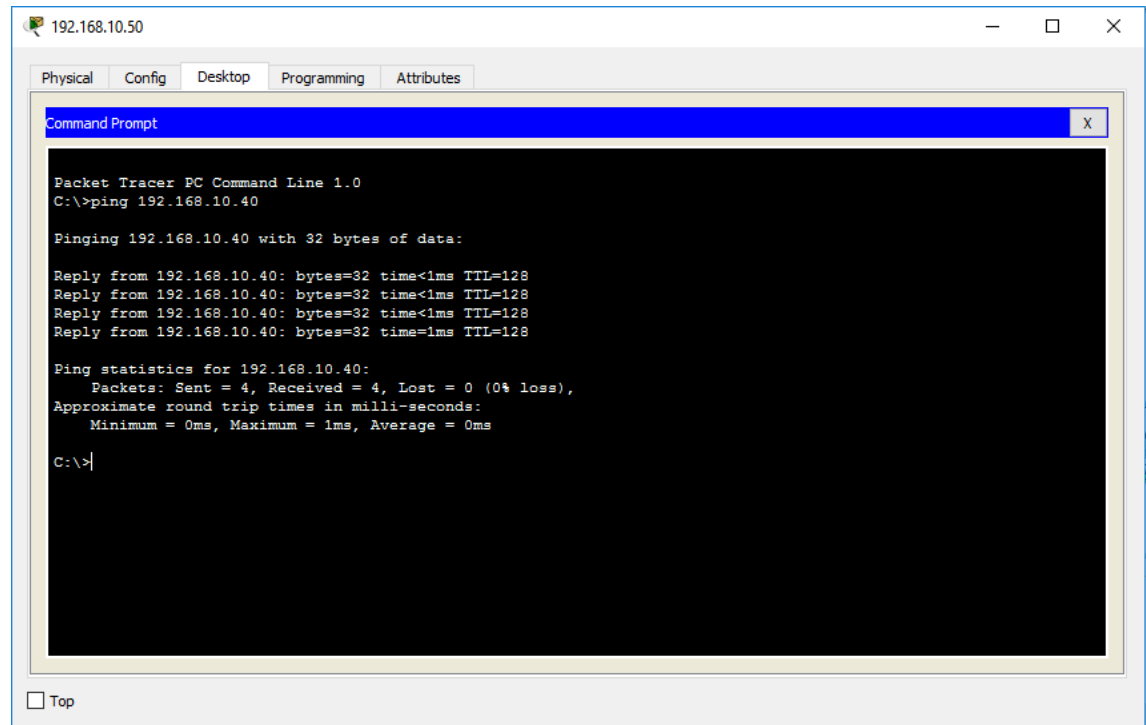
Try to ping 192.168.10.20 to 192.168.10.30



Try to ping 192.168.10.30 to 192.168.10.40



Try to ping 192.168.10.40 to 192.168.10.50



- Check the connection by ping from the IP computer 192.168.10.10 to another computer with a same connection switch

Try to ping 192.168.10.10 to 192.168.10.11

