

COMPUTER NETWORK

MODUL 2

EVEN SEMESTER



Disusun oleh:

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L200183070

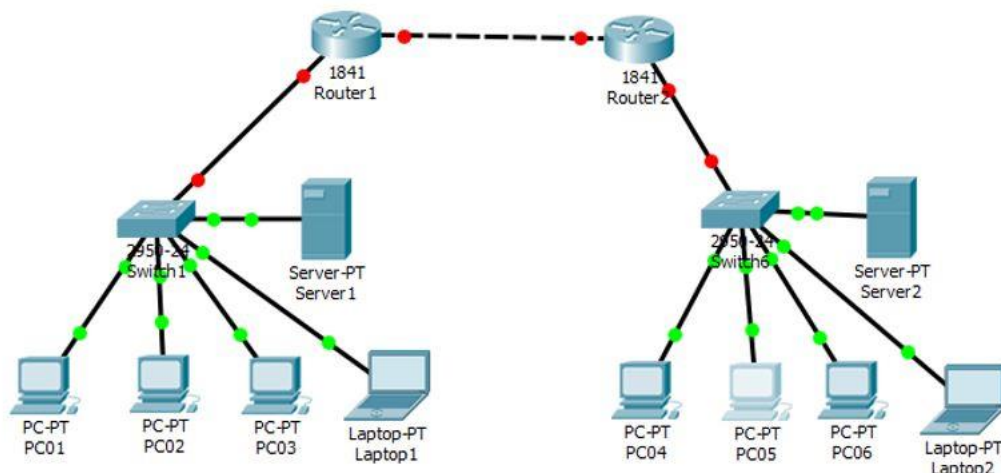
INFORMATION STUDY PROGRAM

COMMUNICATION AND INFORMATION FACULTY

MUHAMMADIYAH UNIVERSITY OF SURAKARTA

Practicum Activity

1. Activity 1



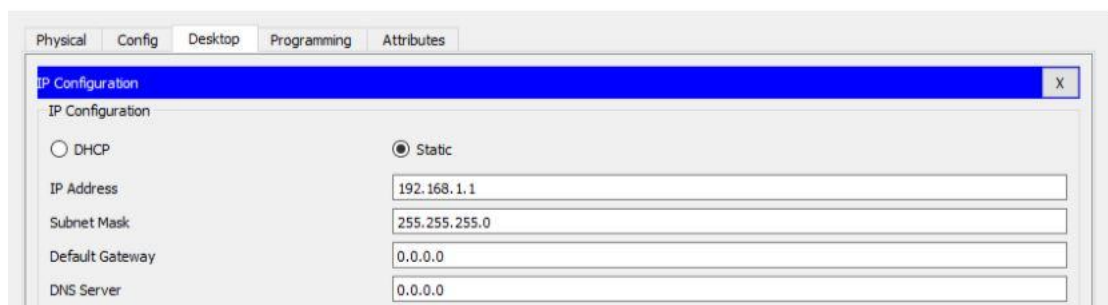
In the first activity there are router components, switches, and devices that are connected by connectors. Each connector has a lamp that symbolizes that the connector is connected. The red color represents the connector is not connected, the orange color represents the connector is being installed / the connection process, the green color represents the connector is connected.

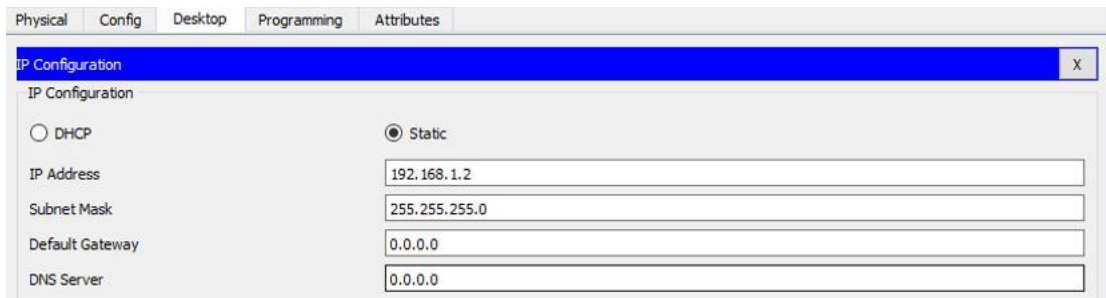
2. Activity 2. Creating a Peer to Peer Network

- Create a design using packet tracer

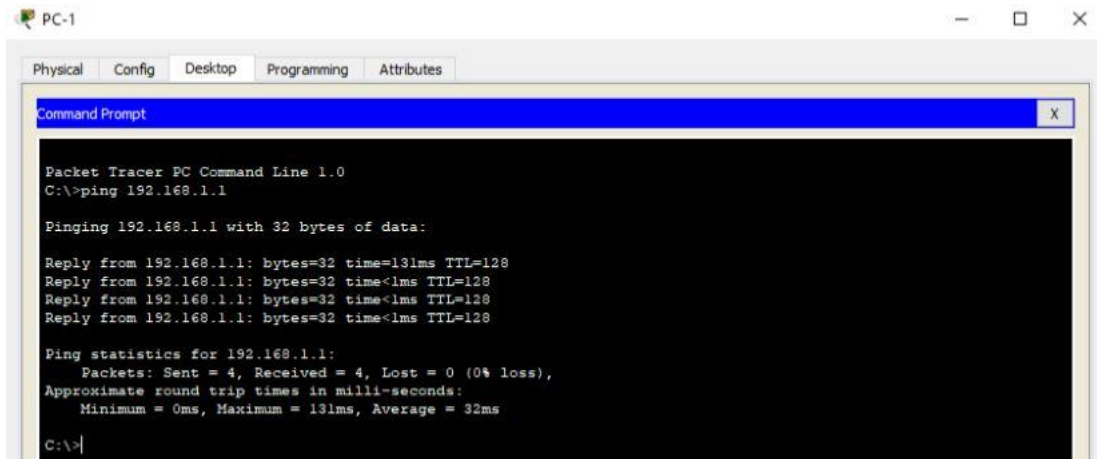


- Give IP Address





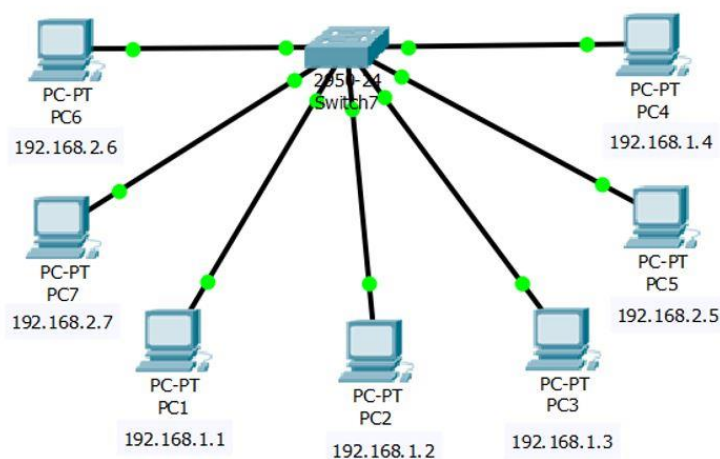
- Check the connection



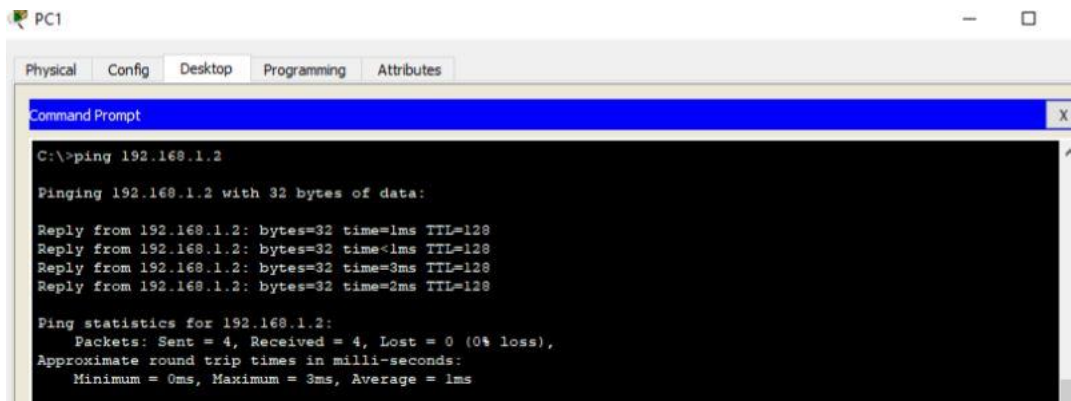
Peer to peer two workstations there are no obstacles. Each connection can be proven by pinging each other successfully and there is no RTO as shown in the message column.

3. Activity 3. Make a network with a switch

- Make a computer network with an IP address



- Ping connection from PC1 to PC2



The screenshot shows a Packet Tracer PC window for PC1. The 'Desktop' tab is selected, displaying a 'Command Prompt' window. The command 'C:\>ping 192.168.1.2' has been entered. The output shows four successful replies from 192.168.1.2 with varying times (1ms, 1ms, 3ms, 2ms) and a TTL of 128. The statistics indicate 4 packets sent, 4 received, and 0% loss.

```
C:\>ping 192.168.1.2

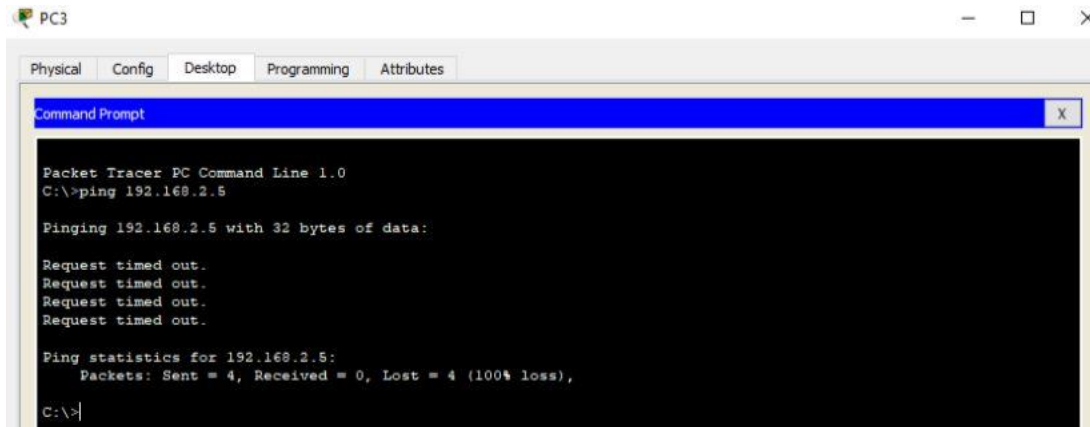
Pinging 192.168.1.2 with 32 bytes of data:

Reply from 192.168.1.2: bytes=32 time=1ms TTL=128
Reply from 192.168.1.2: bytes=32 time=1ms TTL=128
Reply from 192.168.1.2: bytes=32 time=3ms TTL=128
Reply from 192.168.1.2: bytes=32 time=2ms TTL=128

Ping statistics for 192.168.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 3ms, Average = 1ms
```

- a. PC1 to PC2 : is clear without any constraints.

- Ping connection from PC3 to PC5



The screenshot shows a Packet Tracer PC window for PC3. The 'Desktop' tab is selected, displaying a 'Command Prompt' window. The command 'C:\>ping 192.168.2.5' has been entered. The output shows four 'Request timed out.' messages. The statistics indicate 4 packets sent, 0 received, and 100% loss.

```
Packet Tracer PC Command Line 1.0
C:\>ping 192.168.2.5

Pinging 192.168.2.5 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

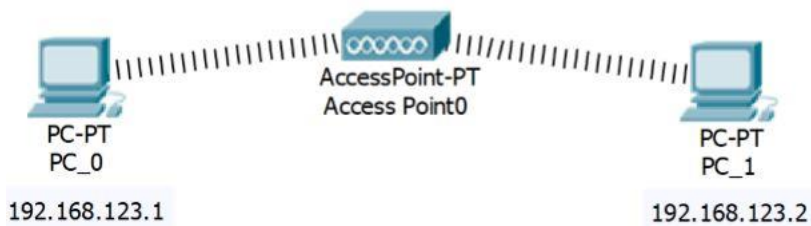
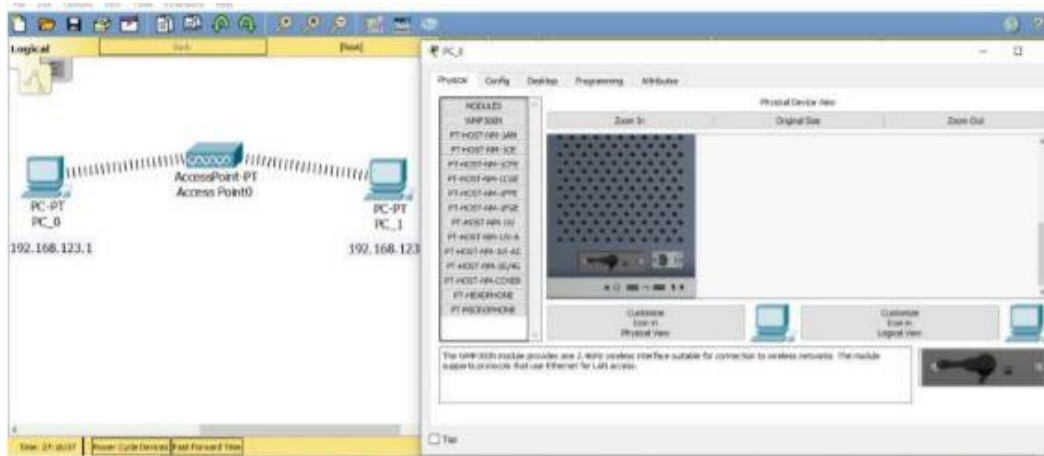
Ping statistics for 192.168.2.5:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>|
```

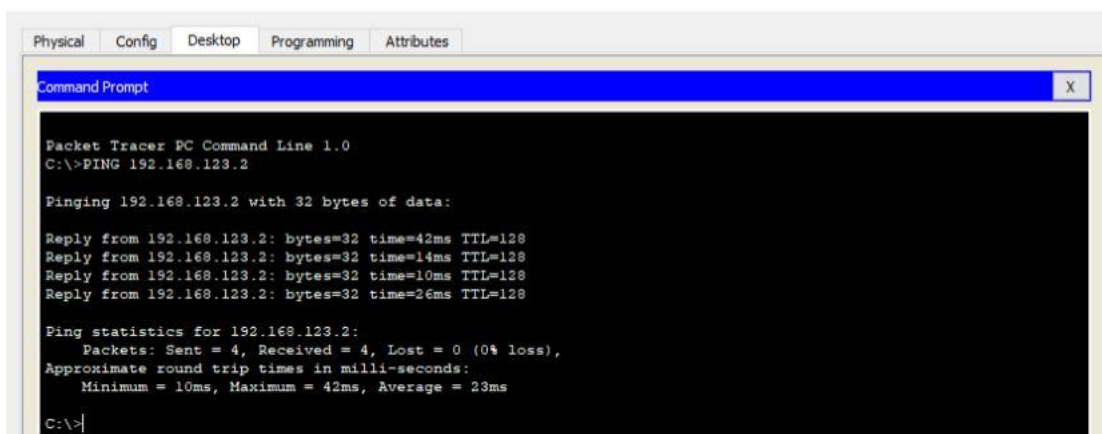
- b. PC3 to PC5 : experiences RTO due to differences in network ID.

4. Activity 4. Wireless Network

- Replace the lan card module on the PC device



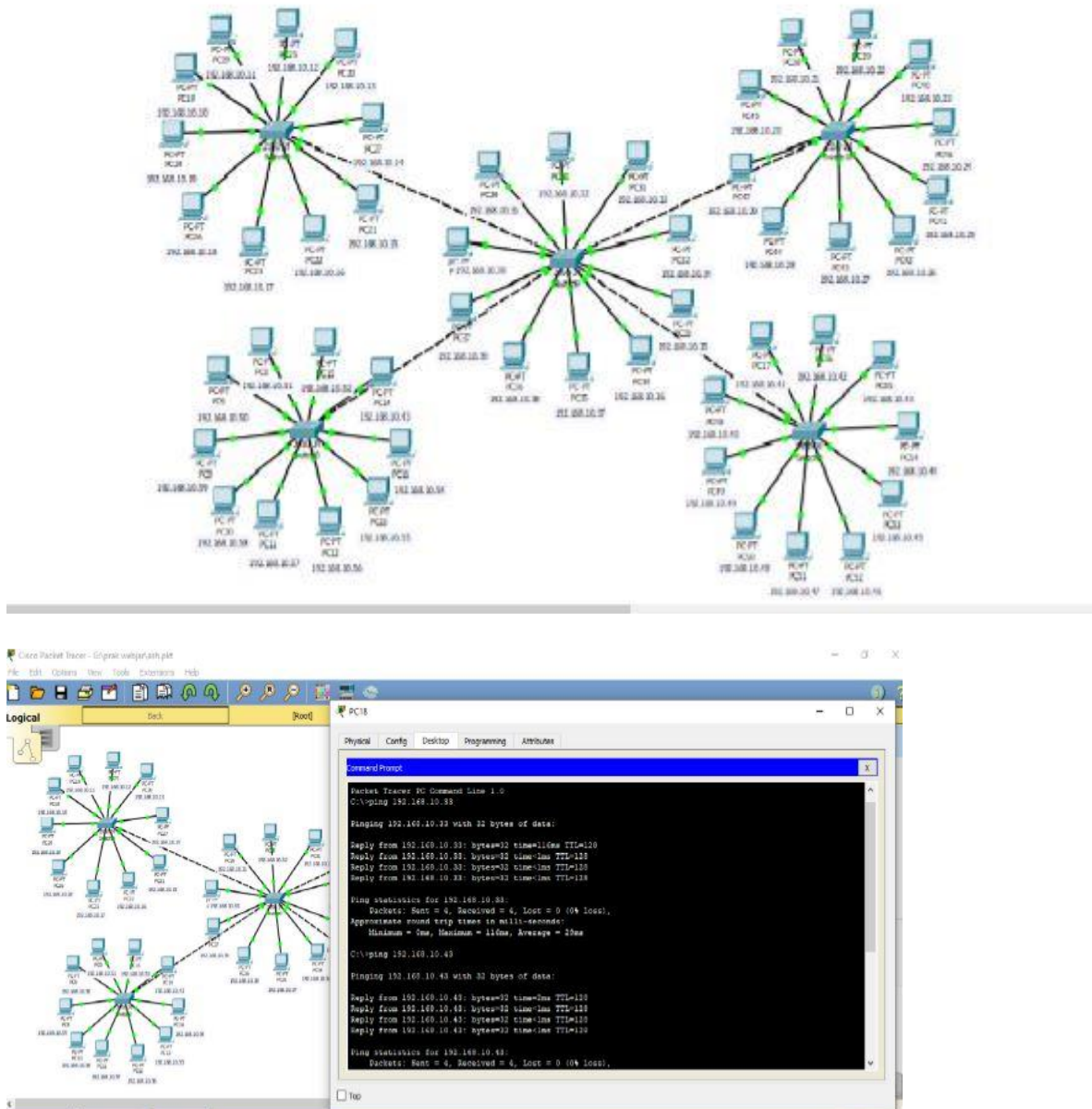
- And then , do pink between the two PCs

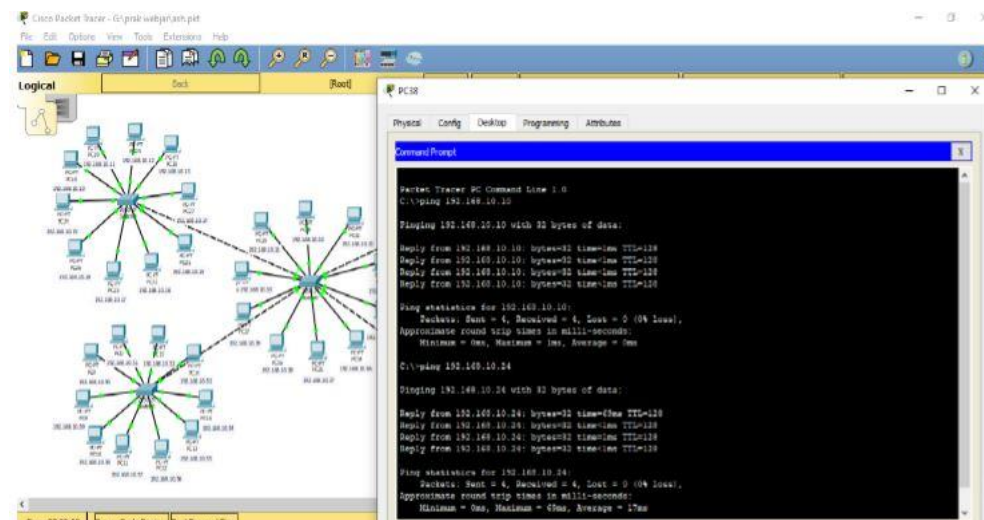
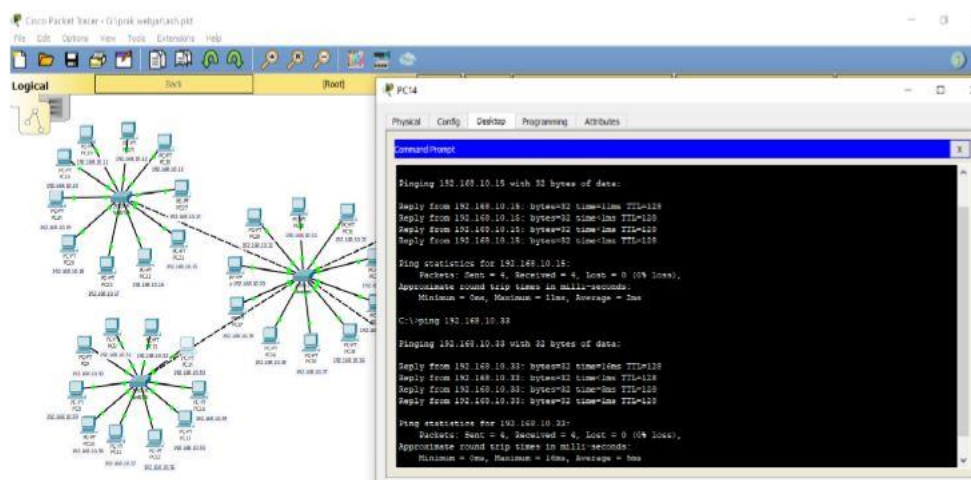
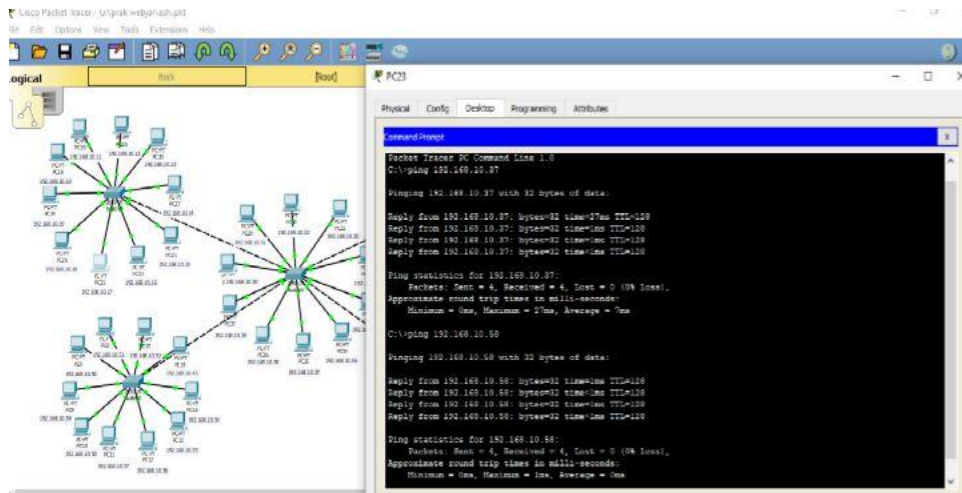


Replacing computer components into wireless components and connecting 2 computers with wireless components. There are 1 access point and 2 workstations. Ping clearly without any problems.

EXERCISE

1. Make a design that consists of 5 switches connected to each other, and each switch consists of 10 pc. with an IP Address between 192.268.10.10 to 192.268.10.60.





5 switches. Each switch consists of 10 workstations. Each of which has an IP 192.168.10.10-192.168.10.60

Can be seen all workstations connected succesfull (ping).

It would be more effective if there is a router device, so that IP can be configured via DHCP.