

**LAPORAN PRAKTIKUM JARINGAN KOMPUTER  
MODUL 2  
“PENGENALAN CISCO PACKET TRACER”**



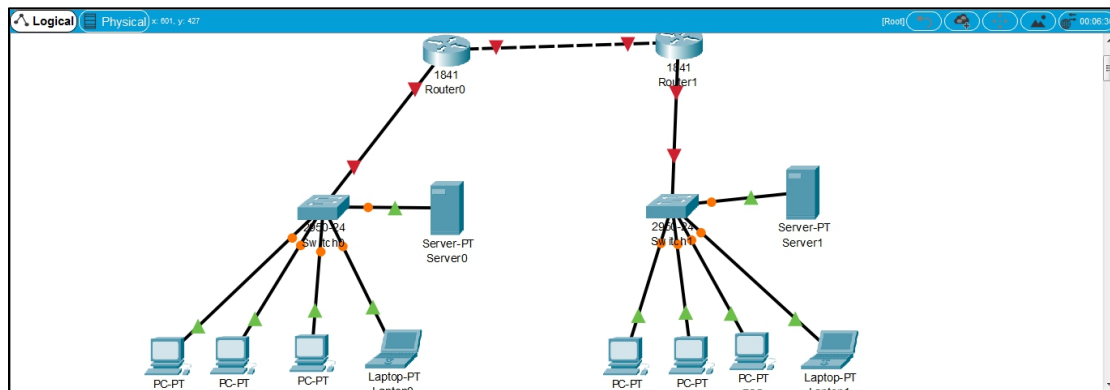
**Oleh:**

**NAMA : Daffa Putra Alwansyah  
NIM : L200190031  
KELAS : A  
PRODI : INFORMATIKA**

**Fakultas Komunikasi dan Informatika Universitas  
Muhammadiyah Surakarta**

## 1. Kegiatan 1

Membuat rancangan jaringan komputer.



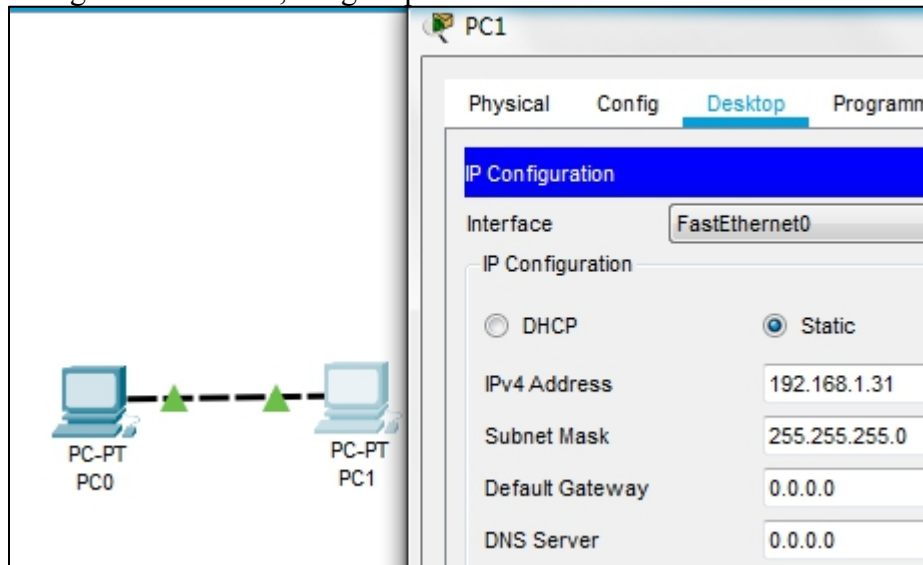
### Penjelasan:

A. Terlihat bahwa indikator berwarna **merah** dari (router-router) dan (router-switch) yang berarti tidak terhubung.

B. Terlihat bahwa indikator berwarna **orange**(awalnya) lalu berubah ke **hijau** dari (switch-server), (switch-pc) dan (switch-laptop) yang berarti **orange** sedang melakukan instalasi perangkat dan **hijau** sudah terhubung.

## 2. Kegiatan 2 (Membuat Jaringan Peer to Peer.)

Jaringan Peer to Peer, dengan ip address PC0 = 192.168.1.1 dan PC1 = 192.168.1.31



Melakukan ping pada kedua pc:

PC0

```
IPv4 Address.....: 192.168.1.1
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 192.168.1.31

Pinging 192.168.1.31 with 32 bytes of data:

Reply from 192.168.1.31: bytes=32 time=1ms TTL=128
Reply from 192.168.1.31: bytes=32 time<1ms TTL=128
Reply from 192.168.1.31: bytes=32 time=1ms TTL=128
Reply from 192.168.1.31: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.1.31:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
```

## PC1

```
IPv4 Address.....: 192.168.1.31
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 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:

Reply from 192.168.1.1: bytes=32 time<1ms TTL=128
Reply from 192.168.1.1: bytes=32 time<1ms TTL=128
Reply from 192.168.1.1: bytes=32 time<1ms TTL=128
Reply from 192.168.1.1: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
```

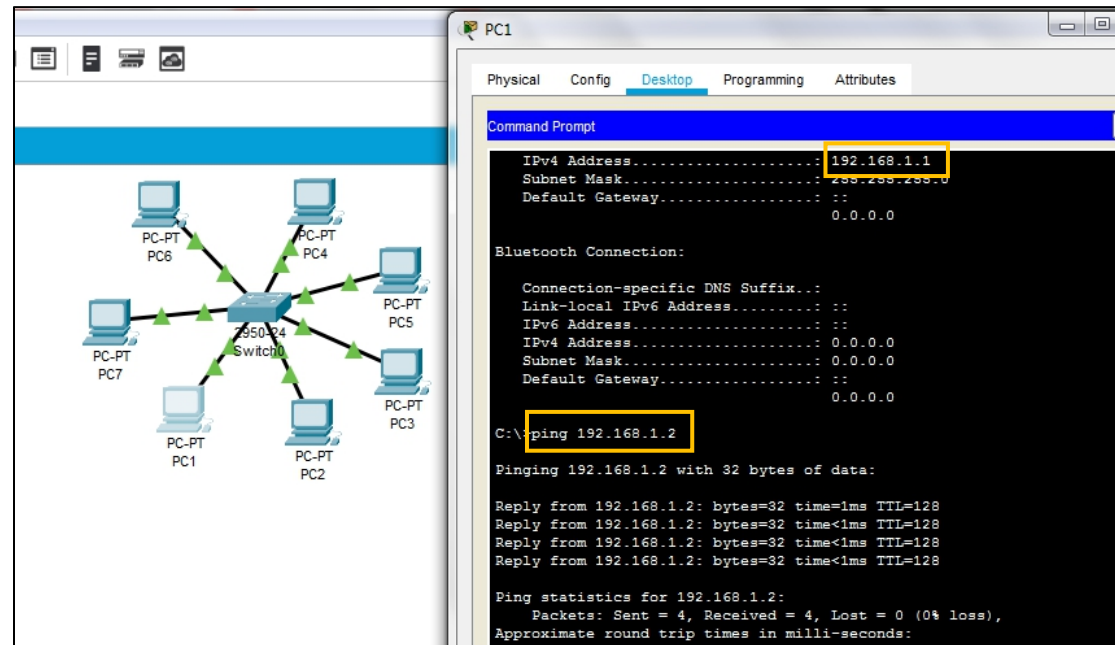
### 3. Kegiatan 3. (membuat jaringan dengan switch)

PC1=192.168.1.1 PC7=192.168.2.7 PC6=192.168.2.6

PC4=192.168.1.4 PC3=192.168.1.3 PC5=192.168.2.5

PC2=192.168.1.2

PC1 ke PC2:



The image shows a network diagram on the left and a PC1 configuration window on the right. The network diagram illustrates a central switch connected to seven PCs (PC1 through PC7). The PC1 configuration window displays the 'Desktop' tab with a Command Prompt showing the IP configuration for PC1 (192.168.1.1) and a successful ping to PC2 (192.168.1.2).

```
Physical Config Desktop Programming Attributes

Command Prompt

IPv4 Address.....: 192.168.1.1
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

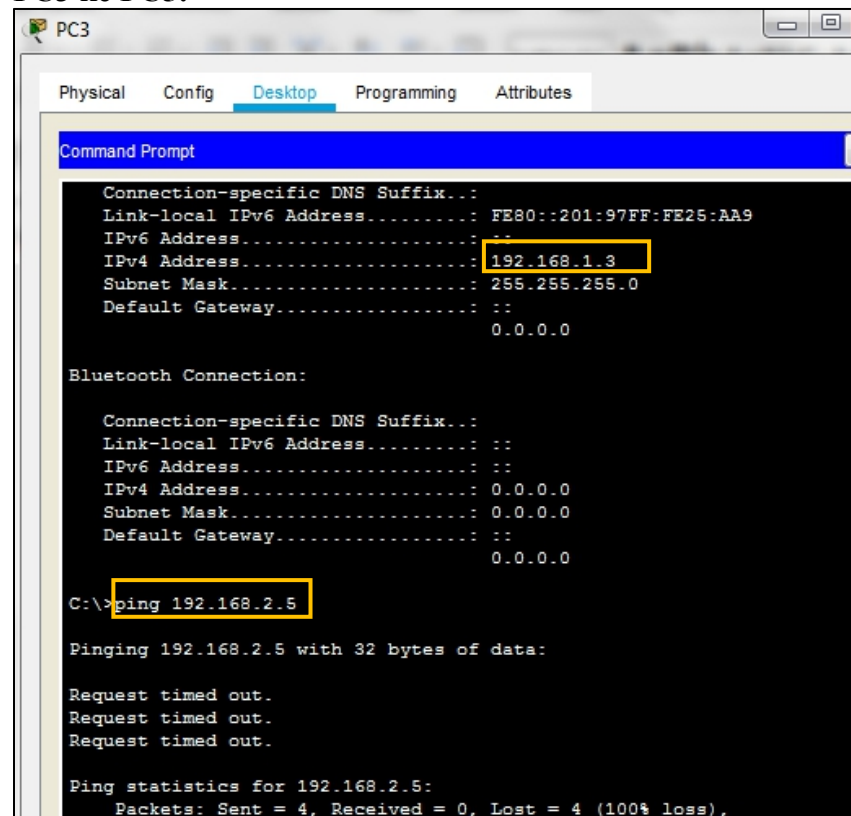
C:\>ping 192.168.1.2

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<1ms TTL=128
Reply from 192.168.1.2: bytes=32 time<1ms 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:
```

PC3 ke PC5:



The image shows the PC3 configuration window with the 'Desktop' tab selected. The Command Prompt displays the IP configuration for PC3 (192.168.1.3) and a failed ping to PC5 (192.168.2.5), resulting in a 100% loss.

```
Physical Config Desktop Programming Attributes

Command Prompt

Connection-specific DNS Suffix...:
Link-local IPv6 Address.....: FE80::201:97FF:FE25:AA9
IPv6 Address.....: ::
IPv4 Address.....: 192.168.1.3
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 192.168.2.5

Pinging 192.168.2.5 with 32 bytes of data:

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

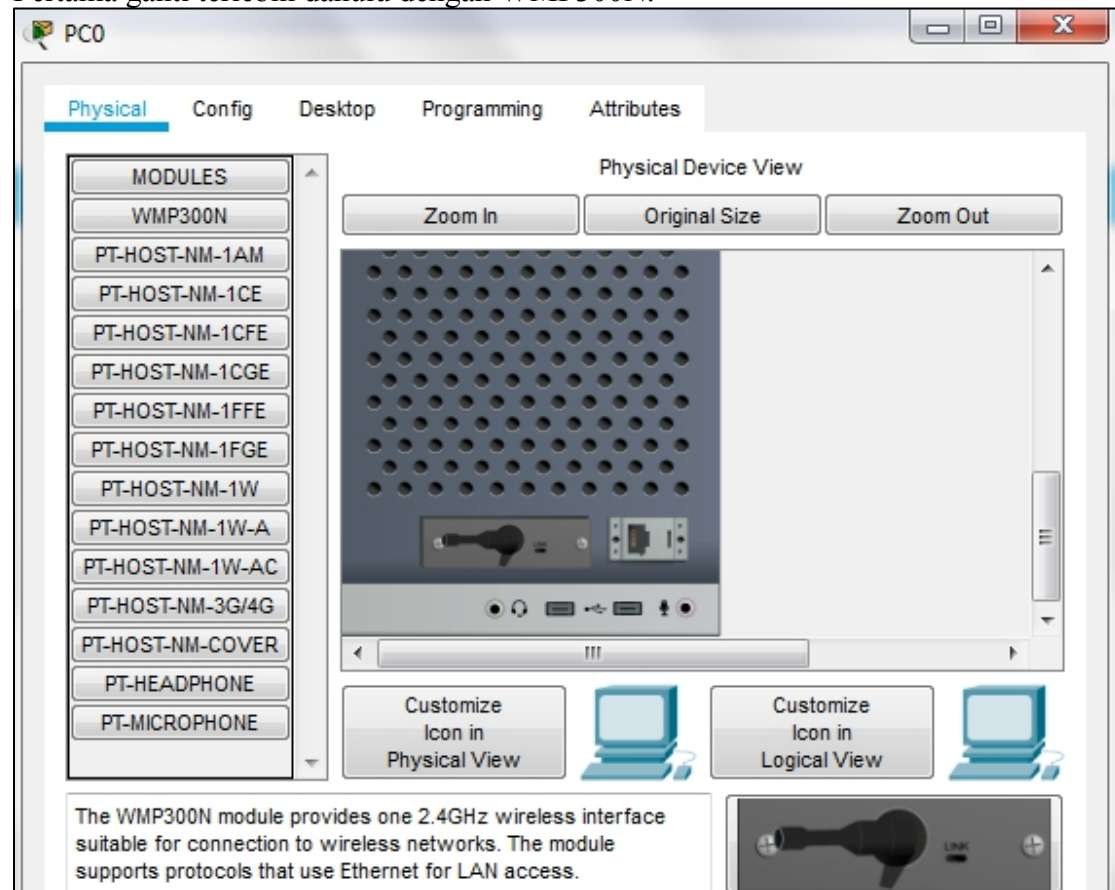
Ping statistics for 192.168.2.5:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

### Penjelasan:

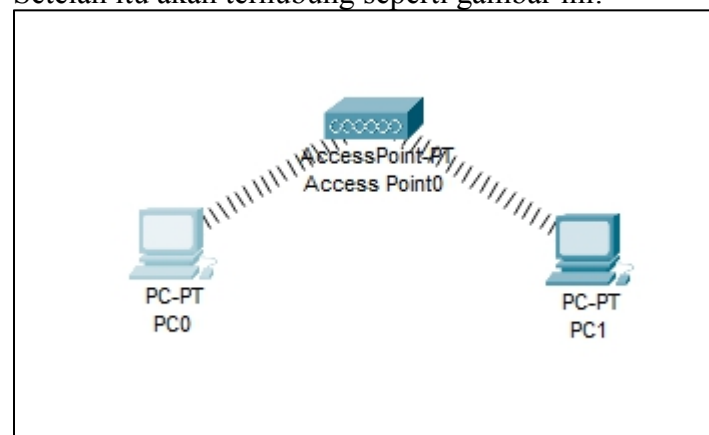
- PC1 ke PC2 dapat berjalan karena memiliki ip address yang sama.
- PC3 ke PC5 mengalami RTO karena memiliki ip address yang berbeda 192.168.1.3 dengan 192.168.2.5

## 4. Kegiatan 4. Jaringan Nirkabel

Pertama ganti terlebih dahulu dengan WMP300N.

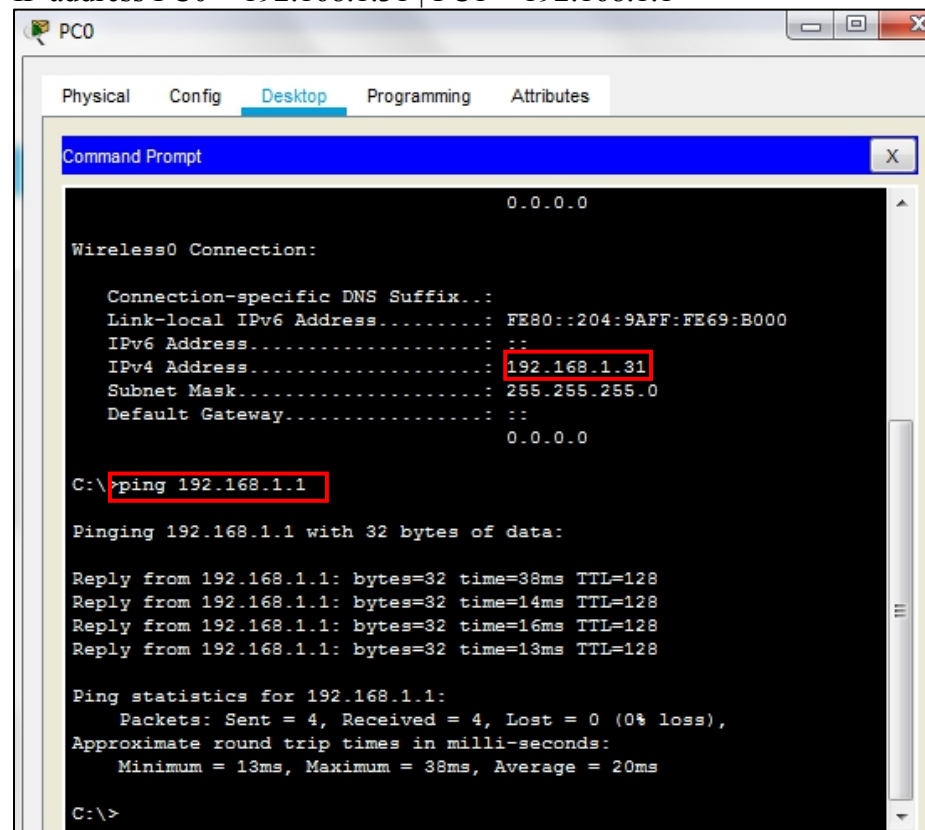


Setelah itu akan terhubung seperti gambar ini:



## Melakukan ping:

IP address PC0 = 192.168.1.31 | PC1 = 192.168.1.1



PC0

Physical Config **Desktop** Programming Attributes

Command Prompt

```
0.0.0.0

Wireless0 Connection:

Connection-specific DNS Suffix...:
Link-local IPv6 Address . . . . .: FE80::204:9AFF:FE69:B000
IPv6 Address . . . . .: ::
IPv4 Address . . . . .: 192.168.1.31
Subnet Mask . . . . .: 255.255.255.0
Default Gateway . . . . .: ::
                                0.0.0.0

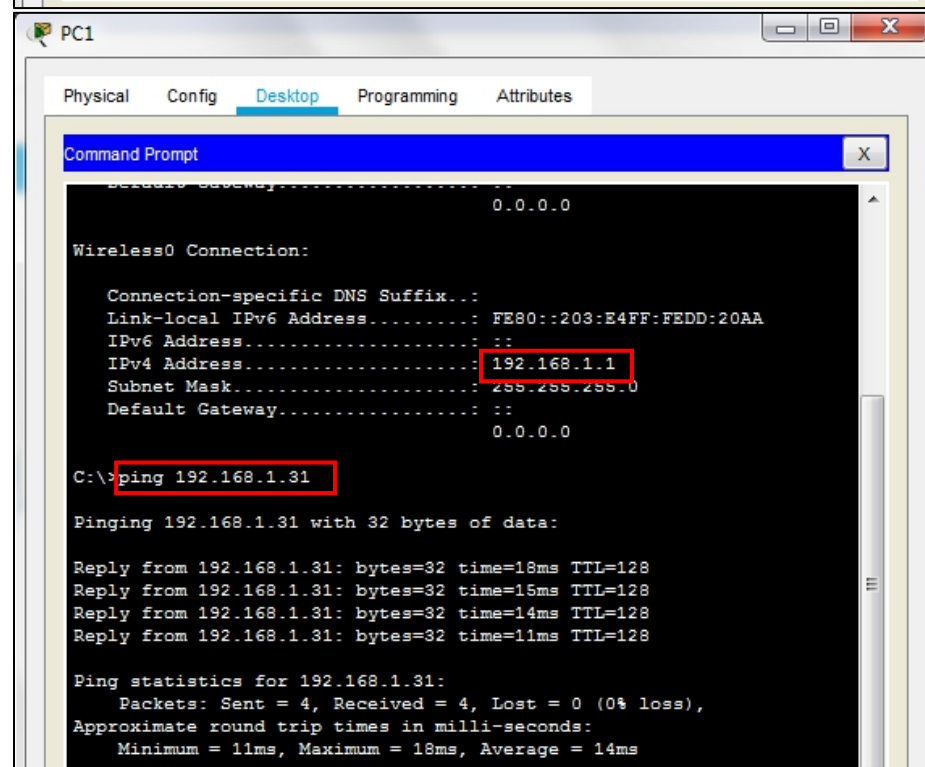
C:\>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:

Reply from 192.168.1.1: bytes=32 time=38ms TTL=128
Reply from 192.168.1.1: bytes=32 time=14ms TTL=128
Reply from 192.168.1.1: bytes=32 time=16ms TTL=128
Reply from 192.168.1.1: bytes=32 time=13ms TTL=128

Ping statistics for 192.168.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 13ms, Maximum = 38ms, Average = 20ms

C:\>
```



PC1

Physical Config **Desktop** Programming Attributes

Command Prompt

```
Default Gateway . . . . .:
                                0.0.0.0

Wireless0 Connection:

Connection-specific DNS Suffix...:
Link-local IPv6 Address . . . . .: FE80::203:E4FF:FEDD:20AA
IPv6 Address . . . . .: ::
IPv4 Address . . . . .: 192.168.1.1
Subnet Mask . . . . .: 255.255.255.0
Default Gateway . . . . .: ::
                                0.0.0.0

C:\>ping 192.168.1.31

Pinging 192.168.1.31 with 32 bytes of data:

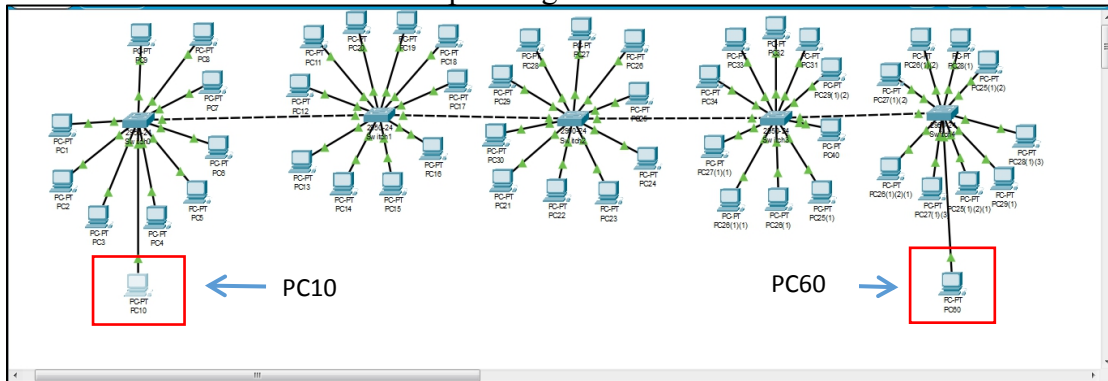
Reply from 192.168.1.31: bytes=32 time=18ms TTL=128
Reply from 192.168.1.31: bytes=32 time=15ms TTL=128
Reply from 192.168.1.31: bytes=32 time=14ms TTL=128
Reply from 192.168.1.31: bytes=32 time=11ms TTL=128

Ping statistics for 192.168.1.31:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 11ms, Maximum = 18ms, Average = 14ms
```



## TUGAS

5 switch yang saling terhubung, dan setiap switch terdiri dari 10 pc. Dengan alamat IP Address antara 192.168.10.10 sampai dengan 192.168.10.60.



### PC10 ke PC60:

dengan terhubungnya PC10(switch1) ke PC60(switch5) otomatis terhubung juga antara switch2, switch3 dan switch 4 beserta PC-nya. (karena ip address sama 192.168.10.10 sampai 192.168.10.60)

