

Nama : Anang Prasetyo

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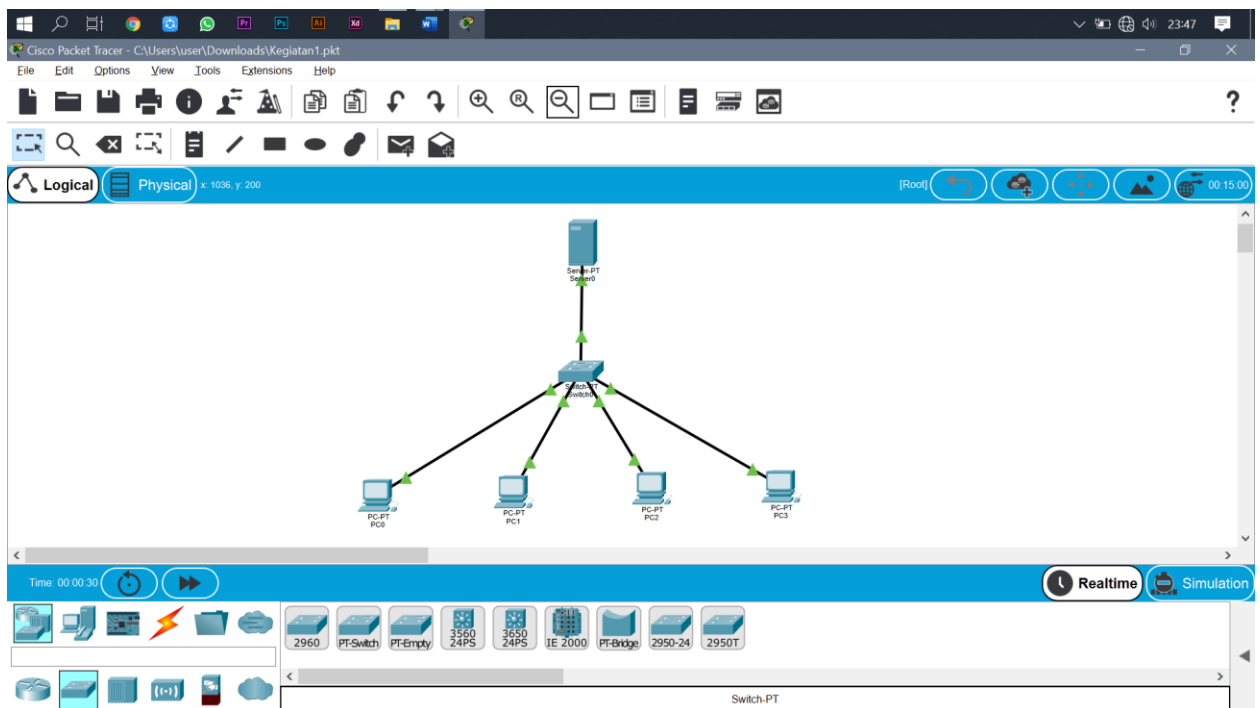
Kelas : B

MODUL 5

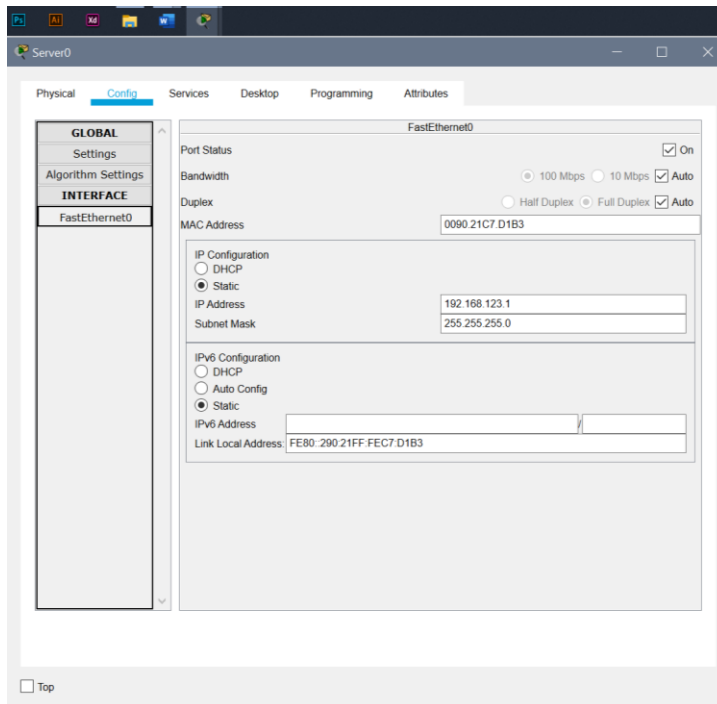
Kegiatan Praktikum

1. Praktikum 1 membuat DHCP Server

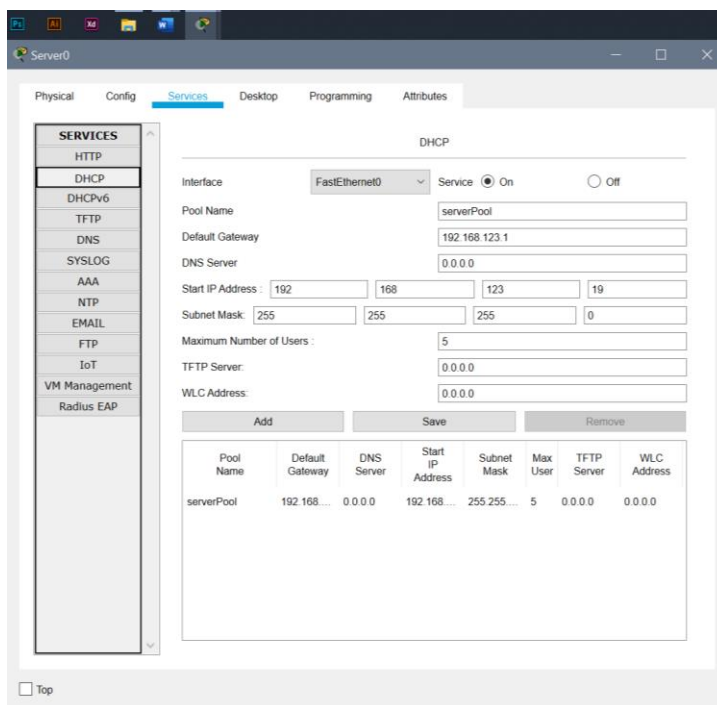
Menyusun komponen-komponen pada rancangan, yaitu terdiri dari 1 server, 1 switch, dan 4 PC



Double klik Server0, memilih config. Pada menu Interface, pilih Fast-Ethernet. Pada bagian IP Configuration, isikan dengan IP Address server.



Untuk konfigurasi DHCP Server pada jendela properties server 0 pada services, DHCP. Pastikan service DHCP On. Isikan blok IP Address yang akan diberikan ke PC client. Pada start IP Address isikan dengan 192.168.123.19 dan pada maximum number of users = 5.



Pada sisi client konfigurasi dilakukan dengan cara double klik pada PC, pilih tab desktop, pada menu yang ada, pilih menu IP Configuration. Pastikan pilihan radio button pada pilihan DHCP. Setelah konfigurasi selesai, silakan cek IP pada PC tersebut.

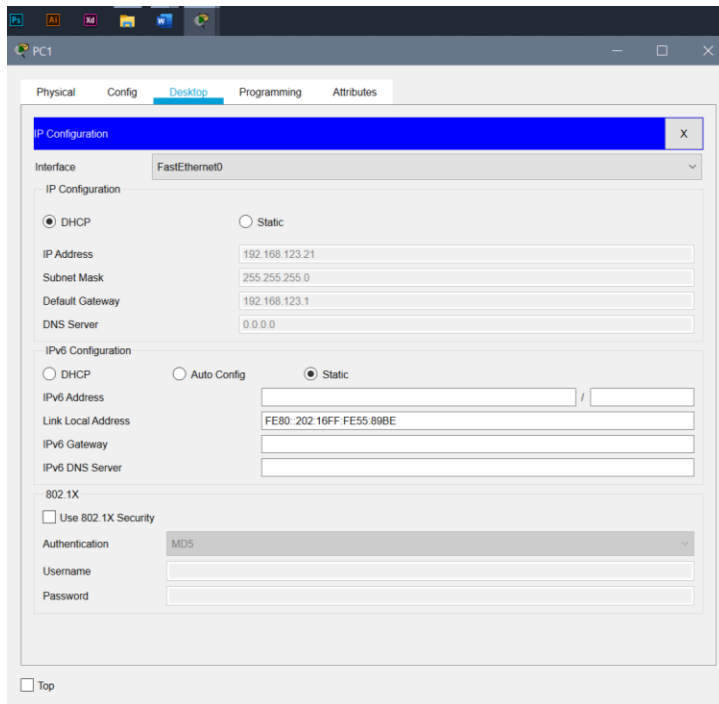
PC0

The screenshot shows the configuration window for PC0, specifically the 'Desktop' tab. The 'IP Configuration' section is active, showing settings for the 'FastEthernet0' interface. The 'DHCP' radio button is selected under 'IP Configuration'. The 'IPv6 Configuration' section shows 'Static' as the selected option. The '802.1X' section is collapsed. The 'Authentication' dropdown is set to 'MD5'. The 'Username' and 'Password' fields are empty. A 'Top' button is located at the bottom left of the window.

Interface	FastEthernet0	
IP Configuration		
<input checked="" type="radio"/> DHCP	<input type="radio"/> Static	
IP Address	192.168.123.19	
Subnet Mask	255.255.255.0	
Default Gateway	192.168.123.1	
DNS Server	0.0.0.0	
IPv6 Configuration		
<input type="radio"/> DHCP	<input type="radio"/> Auto Config	<input checked="" type="radio"/> Static
IPv6 Address		
Link Local Address	FE80::260:2FFF:FE11:468C	
IPv6 Gateway		
IPv6 DNS Server		
802.1X		
<input type="checkbox"/> Use 802.1X Security		
Authentication	MD5	
Username		
Password		

☐ Top

PC1



The image shows the configuration window for PC1. The window has a title bar with 'PC1' and standard minimize, maximize, and close buttons. Below the title bar are four tabs: 'Physical', 'Config', 'Desktop', 'Programming', and 'Attributes'. The 'Desktop' tab is selected. Inside the 'Desktop' tab, there is a blue header bar labeled 'IP Configuration' with a close button 'X' on the right. Below this header, the 'Interface' is set to 'FastEthernet0'. The 'IP Configuration' section has two radio buttons: 'DHCP' (selected) and 'Static'. Below these are input fields for 'IP Address' (192.168.123.21), 'Subnet Mask' (255.255.255.0), 'Default Gateway' (192.168.123.1), and 'DNS Server' (0.0.0.0). The 'IPv6 Configuration' section has three radio buttons: 'DHCP', 'Auto Config', and 'Static' (selected). Below these are input fields for 'IPv6 Address' (empty), 'Link Local Address' (FE80::202:16FF:FE55:89BE), 'IPv6 Gateway' (empty), and 'IPv6 DNS Server' (empty). The '802.1X' section has a checkbox 'Use 802.1X Security' (unchecked), a dropdown menu for 'Authentication' (MD5), and input fields for 'Username' and 'Password'.

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☒ DHCP ☐ Static

IP Address 192.168.123.21

Subnet Mask 255.255.255.0

Default Gateway 192.168.123.1

DNS Server 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address /

Link Local Address FE80::202:16FF:FE55:89BE

IPv6 Gateway

IPv6 DNS Server

802.1X

☐ Use 802.1X Security

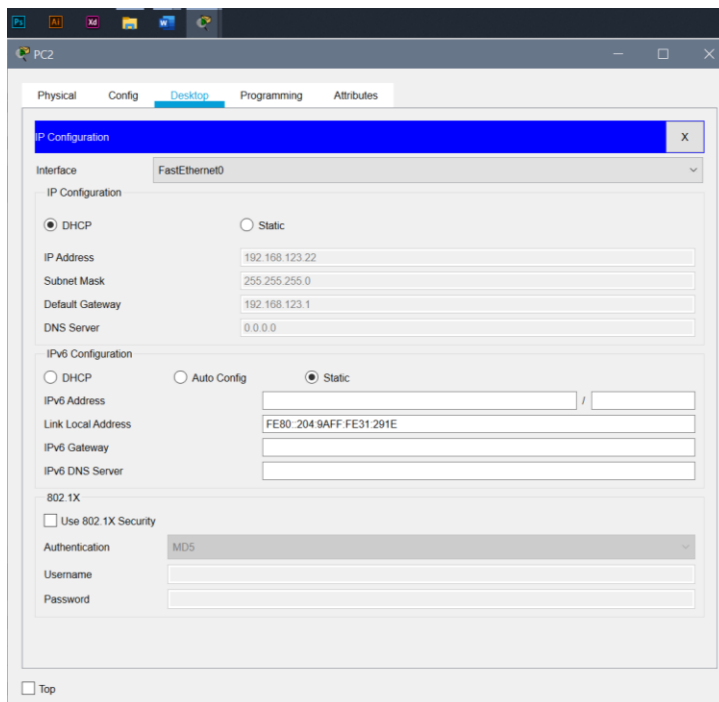
Authentication MD5

Username

Password

☐ Top

PC2



The image shows the configuration window for PC2. The window has a title bar with 'PC2' and standard minimize, maximize, and close buttons. Below the title bar are four tabs: 'Physical', 'Config', 'Desktop', 'Programming', and 'Attributes'. The 'Desktop' tab is selected. Inside the 'Desktop' tab, there is a blue header bar labeled 'IP Configuration' with a close button 'X' on the right. Below this header, the 'Interface' is set to 'FastEthernet0'. The 'IP Configuration' section has two radio buttons: 'DHCP' (selected) and 'Static'. Below these are input fields for 'IP Address' (192.168.123.22), 'Subnet Mask' (255.255.255.0), 'Default Gateway' (192.168.123.1), and 'DNS Server' (0.0.0.0). The 'IPv6 Configuration' section has three radio buttons: 'DHCP', 'Auto Config', and 'Static' (selected). Below these are input fields for 'IPv6 Address' (empty), 'Link Local Address' (FE80::204:9AFF:FE31:291E), 'IPv6 Gateway' (empty), and 'IPv6 DNS Server' (empty). The '802.1X' section has a checkbox 'Use 802.1X Security' (unchecked), a dropdown menu for 'Authentication' (MD5), and input fields for 'Username' and 'Password'.

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☒ DHCP ☐ Static

IP Address 192.168.123.22

Subnet Mask 255.255.255.0

Default Gateway 192.168.123.1

DNS Server 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address /

Link Local Address FE80::204:9AFF:FE31:291E

IPv6 Gateway

IPv6 DNS Server

802.1X

☐ Use 802.1X Security

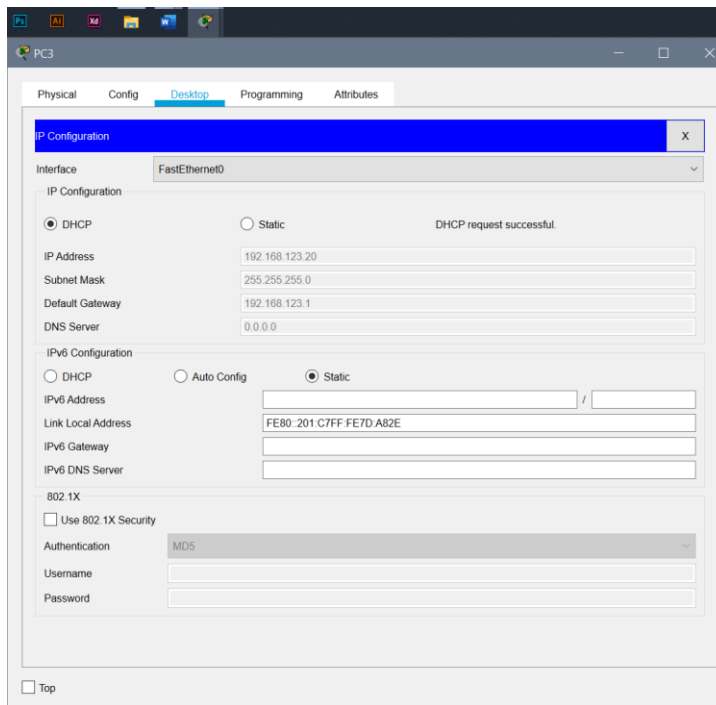
Authentication MD5

Username

Password

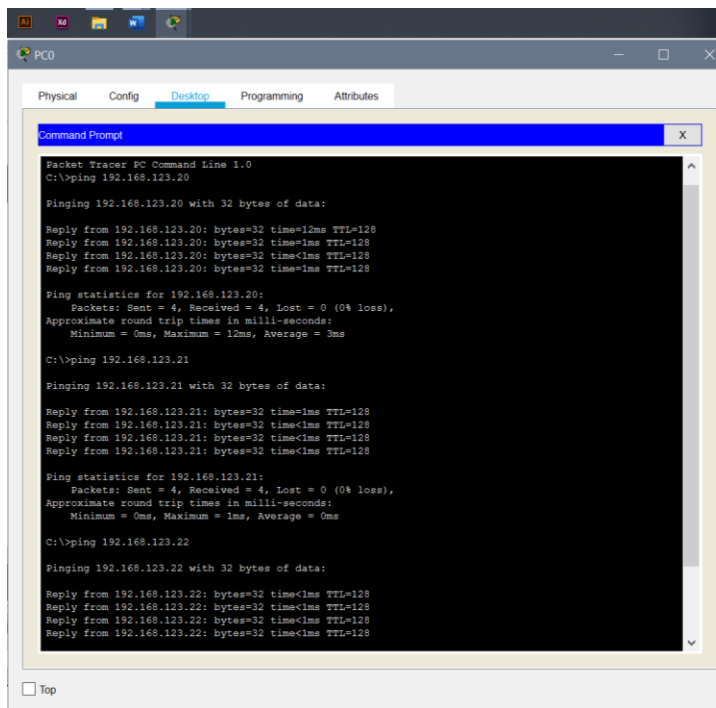
☐ Top

PC3

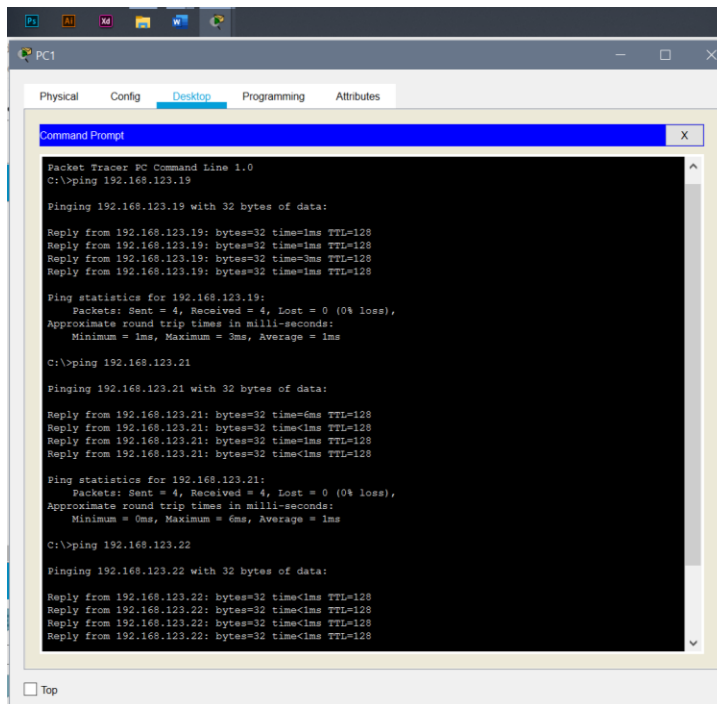


Setelah selesai konfigurasi semua, ping ke semua PC yang terhubung dengan server DHCP

PC0



PC1



The screenshot shows the Packet Tracer PC Command Line interface for PC1. The Command Prompt window displays the following output:

```
Packet Tracer PC Command Line 1.0
C:\>ping 192.168.123.19

Pinging 192.168.123.19 with 32 bytes of data:

Reply from 192.168.123.19: bytes=32 time=1ms TTL=128
Reply from 192.168.123.19: bytes=32 time=1ms TTL=128
Reply from 192.168.123.19: bytes=32 time=3ms TTL=128
Reply from 192.168.123.19: bytes=32 time=1ms TTL=128

Ping statistics for 192.168.123.19:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 3ms, Average = 1ms

C:\>ping 192.168.123.21

Pinging 192.168.123.21 with 32 bytes of data:

Reply from 192.168.123.21: bytes=32 time=6ms TTL=128
Reply from 192.168.123.21: bytes=32 time<1ms TTL=128
Reply from 192.168.123.21: bytes=32 time=1ms TTL=128
Reply from 192.168.123.21: bytes=32 time<1ms TTL=128

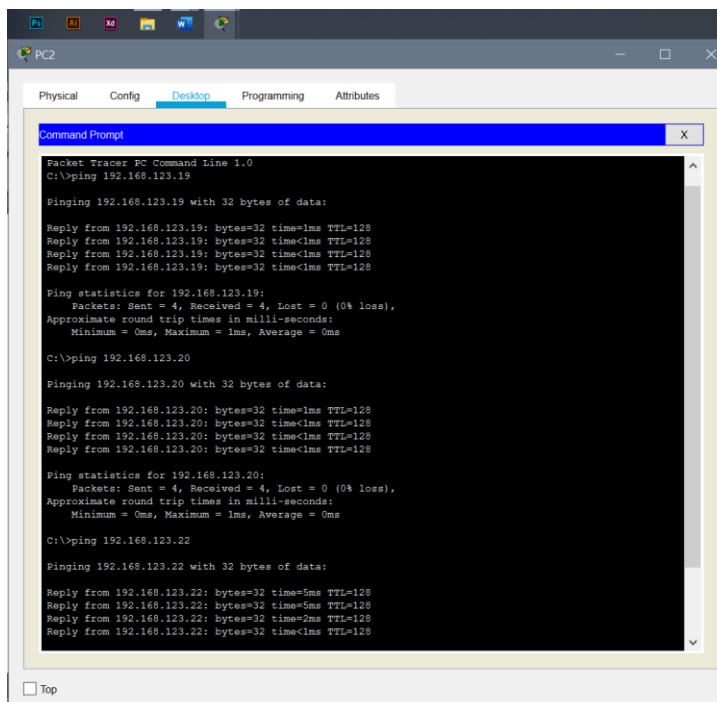
Ping statistics for 192.168.123.21:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 6ms, Average = 1ms

C:\>ping 192.168.123.22

Pinging 192.168.123.22 with 32 bytes of data:

Reply from 192.168.123.22: bytes=32 time<1ms TTL=128
Reply from 192.168.123.22: bytes=32 time<1ms TTL=128
Reply from 192.168.123.22: bytes=32 time<1ms TTL=128
Reply from 192.168.123.22: bytes=32 time<1ms TTL=128
```

PC2



The screenshot shows the Packet Tracer PC Command Line interface for PC2. The Command Prompt window displays the following output:

```
Packet Tracer PC Command Line 1.0
C:\>ping 192.168.123.19

Pinging 192.168.123.19 with 32 bytes of data:

Reply from 192.168.123.19: bytes=32 time=1ms TTL=128
Reply from 192.168.123.19: bytes=32 time<1ms TTL=128
Reply from 192.168.123.19: bytes=32 time<1ms TTL=128
Reply from 192.168.123.19: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.123.19:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>ping 192.168.123.20

Pinging 192.168.123.20 with 32 bytes of data:

Reply from 192.168.123.20: bytes=32 time=1ms TTL=128
Reply from 192.168.123.20: bytes=32 time<1ms TTL=128
Reply from 192.168.123.20: bytes=32 time<1ms TTL=128
Reply from 192.168.123.20: bytes=32 time<1ms TTL=128

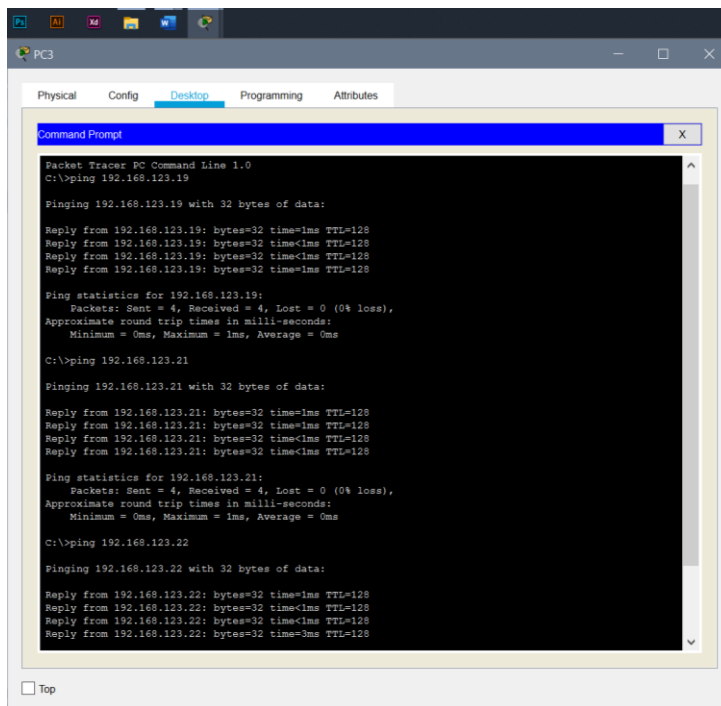
Ping statistics for 192.168.123.20:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>ping 192.168.123.22

Pinging 192.168.123.22 with 32 bytes of data:

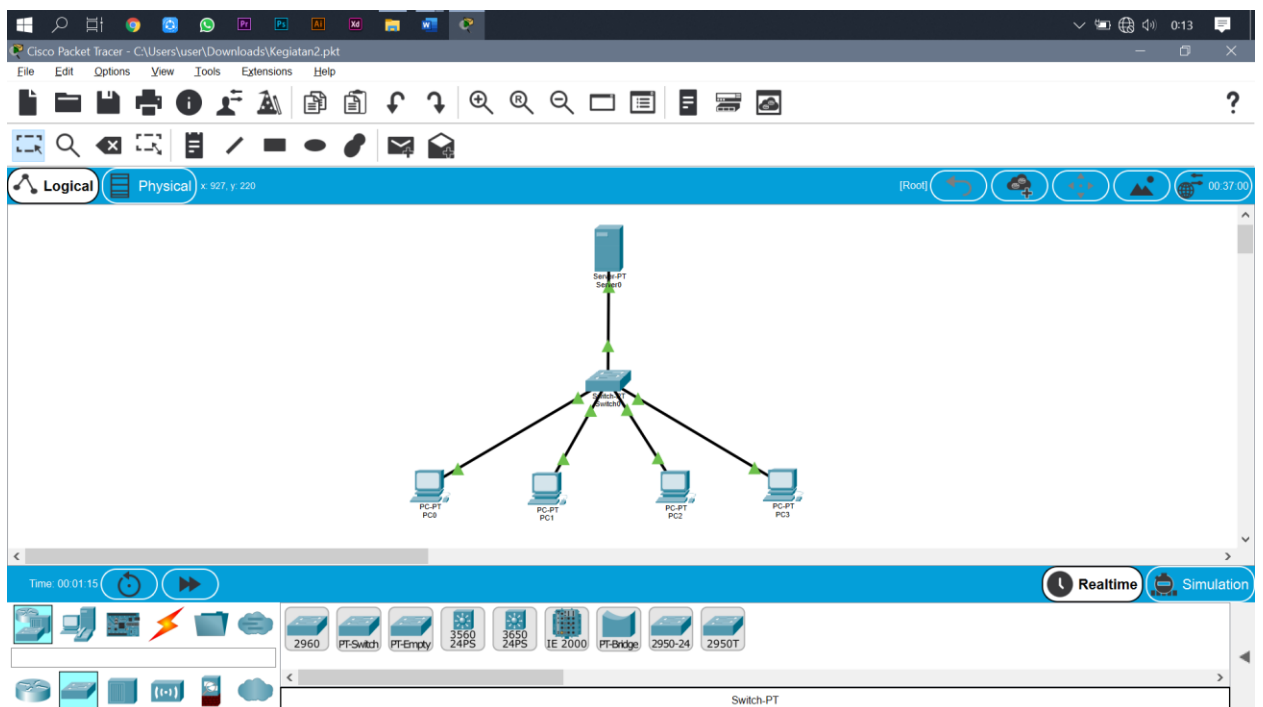
Reply from 192.168.123.22: bytes=32 time=5ms TTL=128
Reply from 192.168.123.22: bytes=32 time=5ms TTL=128
Reply from 192.168.123.22: bytes=32 time=2ms TTL=128
Reply from 192.168.123.22: bytes=32 time<1ms TTL=128
```

PC3

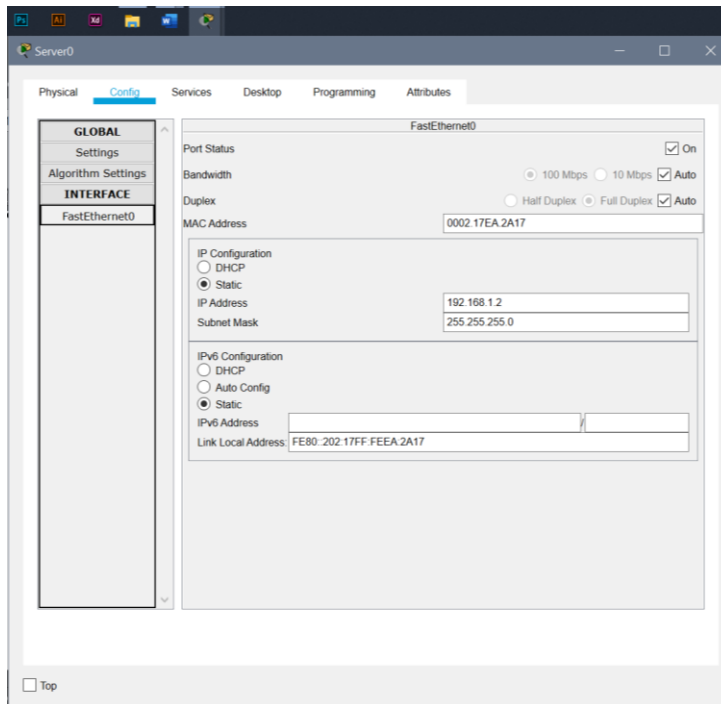


2. Praktikum 2 membuat Web Server

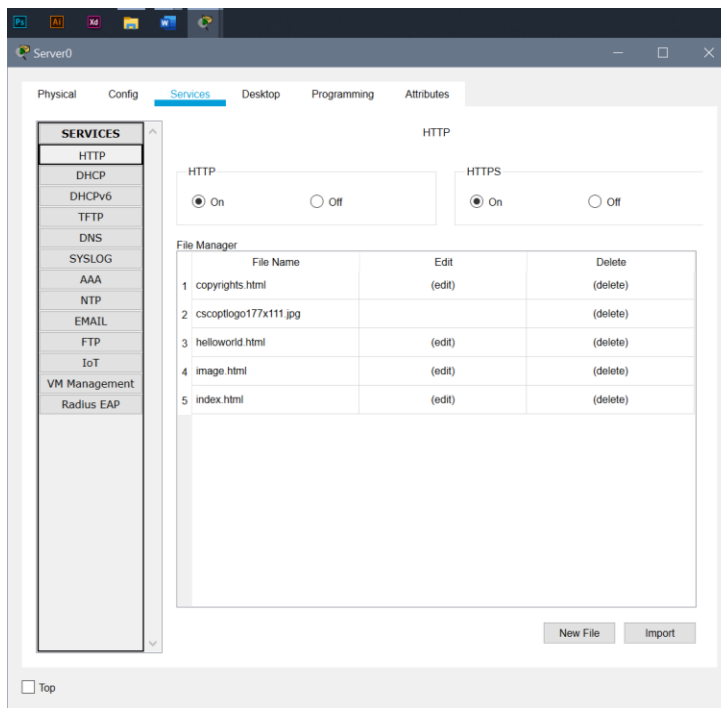
Menyusun komponen-komponen pada rancangan, yaitu terdiri dari 1 server, 1 switch, dan 4 PC



Double klik Server0, memilih config. Pada menu Interface, pilih Fast-Ethernet. Pada bagian IP Configuration, isikan dengan IP Address server.



Memastikan radio button service HTTP pada pilihan on



Mengatur pada service DHCP

The screenshot shows the 'Services' tab in the Server0 configuration window. The 'DHCP' service is selected in the left sidebar. The main area displays the DHCP configuration for the 'FastEthernet0' interface, which is set to 'On'. The configuration includes a pool named 'serverPool' with a default gateway of 192.168.1.1, a DNS server of 192.168.1.2, and a start IP address of 192.168.1.50. The subnet mask is 255.255.255.0, and the maximum number of users is 206. The TFTP and WLC addresses are both 0.0.0.0. Below the configuration fields is a table showing the current DHCP pool configuration.

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP Server	WLC Address
serverPool	192.168.1.1	192.168.1.2	192.168.1.50	255.255.255.0	206	0.0.0.0	0.0.0.0

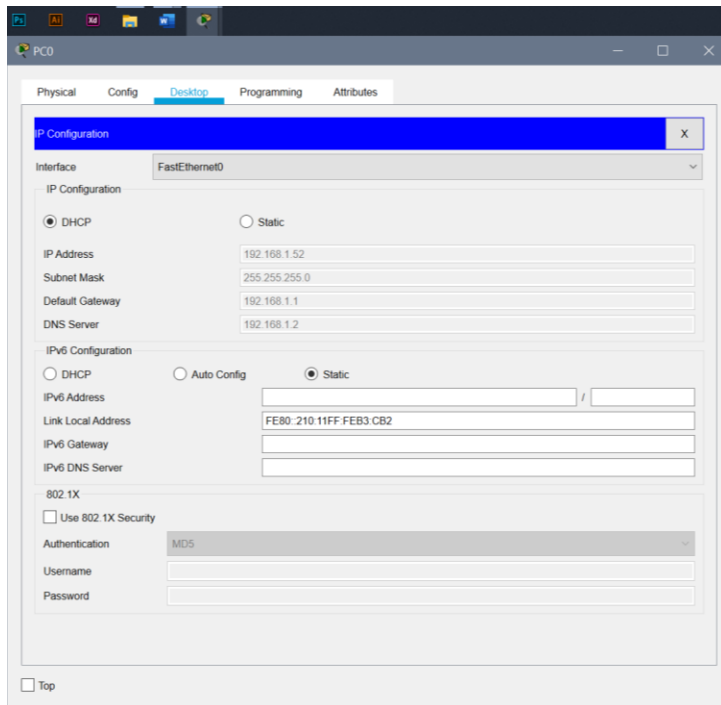
Mengatur pada service DNS

The screenshot shows the 'Services' tab in the Server0 configuration window. The 'DNS' service is selected in the left sidebar. The main area displays the DNS configuration, which is set to 'On'. The 'Resource Records' section shows a table with one record: 'kegiatan2.com' of type 'A Record' with an address of 192.168.1.2. Below the table is a 'DNS Cache' button.

No.	Name	Type	Detail
0	kegiatan2.com	A Record	192.168.1.2

Pada sisi client konfigurasi dilakukan dengan cara double klik pada PC, pilih tab desktop, pada menu yang ada, pilih menu IP Configuration. Pastikan pilihan radio button pada pilihan DHCP. Setelah konfigurasi selesai, silakan cek IP pada PC tersebut.

PC0



The screenshot shows the configuration window for PC0, specifically the 'Desktop' tab. The 'IP Configuration' window is open, showing settings for the 'FastEthernet0' interface. The 'DHCP' radio button is selected under 'IP Configuration'. The 'IPv6 Configuration' section shows 'Static' selected. The '802.1X' section is currently unchecked.

Field	Value
Interface	FastEthernet0
IP Configuration	<input checked="" type="radio"/> DHCP <input type="radio"/> Static
IP Address	192.168.1.52
Subnet Mask	255.255.255.0
Default Gateway	192.168.1.1
DNS Server	192.168.1.2
IPv6 Configuration	<input type="radio"/> DHCP <input type="radio"/> Auto Config <input checked="" type="radio"/> Static
IPv6 Address	
Link Local Address	FE80::210:11FF:FE83:CB2
IPv6 Gateway	
IPv6 DNS Server	
802.1X	<input type="checkbox"/> Use 802.1X Security
Authentication	MD5
Username	
Password	

☐ Top

PC1

The screenshot shows the configuration window for PC1. The 'Desktop' tab is selected. The 'IP Configuration' section is expanded, showing the 'FastEthernet0' interface. The 'IP Configuration' section has two radio buttons: 'DHCP' (selected) and 'Static'. Below these are fields for 'IP Address' (192.168.1.53), 'Subnet Mask' (255.255.255.0), 'Default Gateway' (192.168.1.1), and 'DNS Server' (192.168.1.2). The 'IPv6 Configuration' section has three radio buttons: 'DHCP', 'Auto Config', and 'Static' (selected). Below these are fields for 'IPv6 Address', 'Link Local Address' (FE80::209:7CFF:FEA0:7D63), 'IPv6 Gateway', and 'IPv6 DNS Server'. The '802.1X' section has a checkbox for 'Use 802.1X Security' (unchecked) and a dropdown for 'Authentication' (MD5). Below these are fields for 'Username' and 'Password'. A 'Top' button is at the bottom left.

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☒ DHCP ☐ Static

IP Address 192.168.1.53

Subnet Mask 255.255.255.0

Default Gateway 192.168.1.1

DNS Server 192.168.1.2

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address

Link Local Address FE80::209:7CFF:FEA0:7D63

IPv6 Gateway

IPv6 DNS Server

802.1X

☐ Use 802.1X Security

Authentication MD5

Username

Password

☐ Top

PC2

The screenshot shows the configuration window for PC2. The 'Desktop' tab is selected. The 'IP Configuration' section is expanded, showing the 'FastEthernet0' interface. The 'IP Configuration' section has two radio buttons: 'DHCP' (selected) and 'Static'. Below these are fields for 'IP Address' (192.168.1.51), 'Subnet Mask' (255.255.255.0), 'Default Gateway' (192.168.1.1), and 'DNS Server' (192.168.1.2). The 'IPv6 Configuration' section has three radio buttons: 'DHCP', 'Auto Config', and 'Static' (selected). Below these are fields for 'IPv6 Address', 'Link Local Address' (FE80::2D0:58FF:FE2C:72AE), 'IPv6 Gateway', and 'IPv6 DNS Server'. The '802.1X' section has a checkbox for 'Use 802.1X Security' (unchecked) and a dropdown for 'Authentication' (MD5). Below these are fields for 'Username' and 'Password'. A 'Top' button is at the bottom left.

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☒ DHCP ☐ Static

IP Address 192.168.1.51

Subnet Mask 255.255.255.0

Default Gateway 192.168.1.1

DNS Server 192.168.1.2

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address

Link Local Address FE80::2D0:58FF:FE2C:72AE

IPv6 Gateway

IPv6 DNS Server

802.1X

☐ Use 802.1X Security

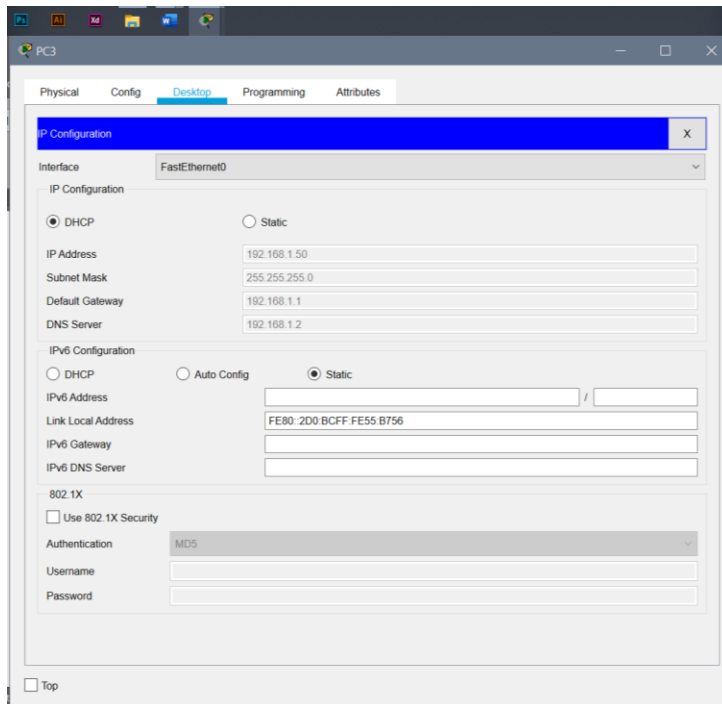
Authentication MD5

Username

Password

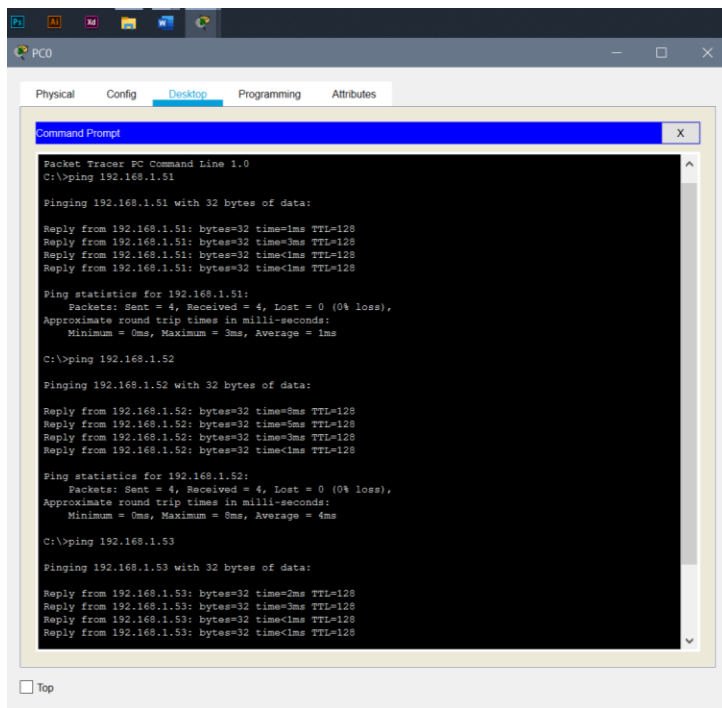
☐ Top

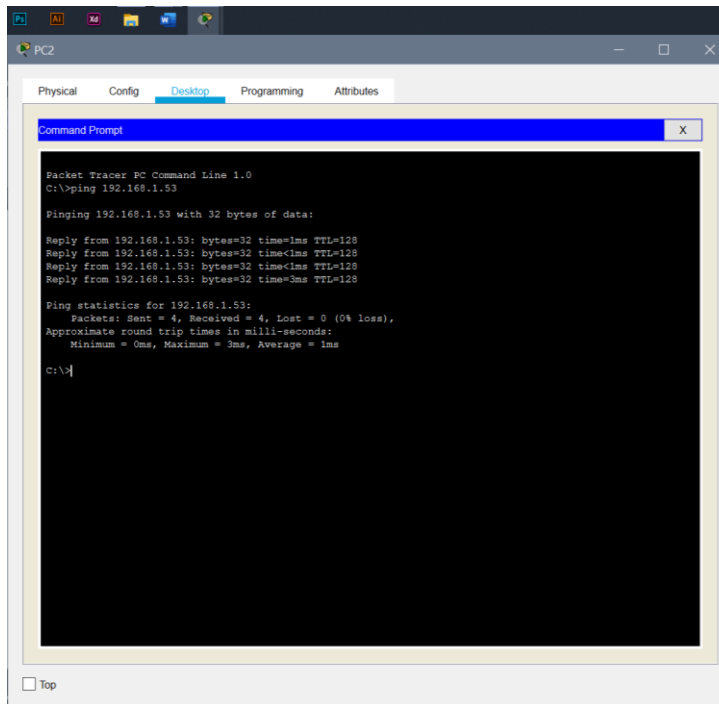
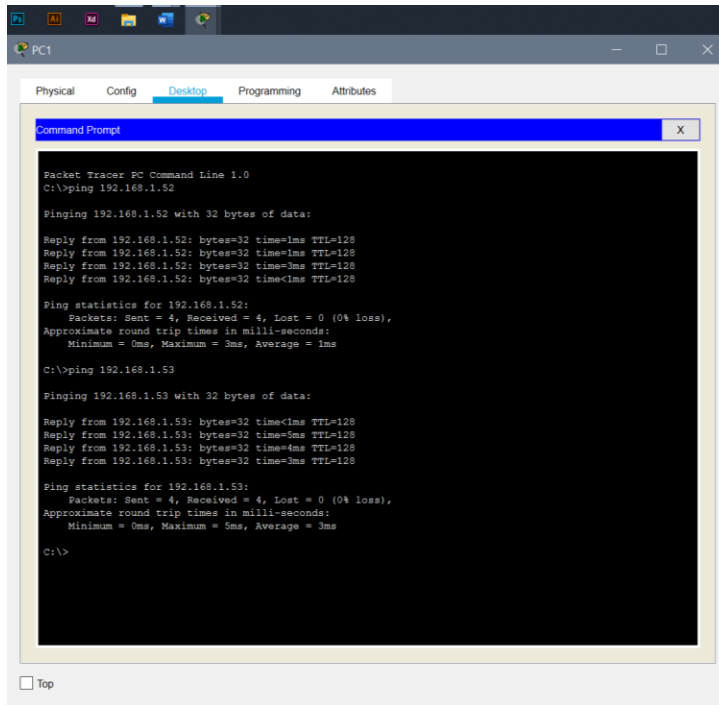
PC3



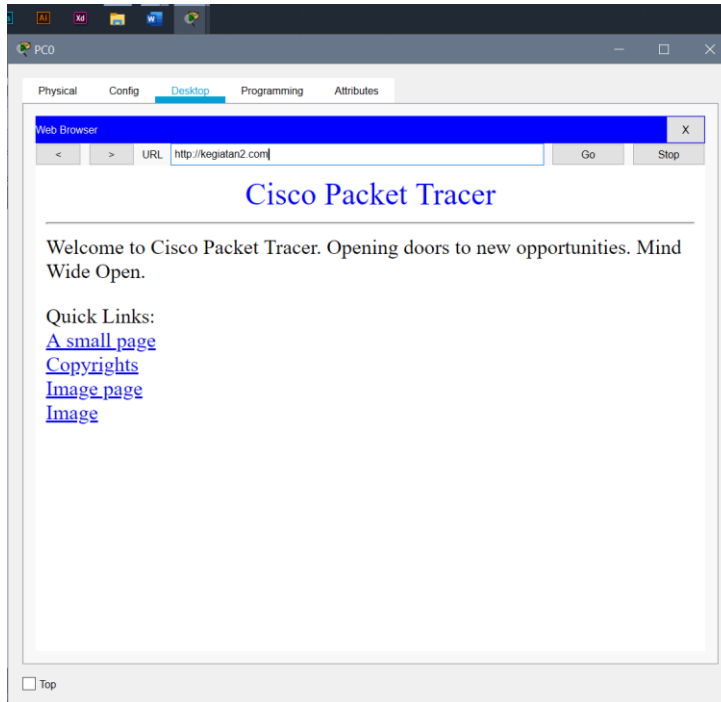
Setelah selesai konfigurasi semua, ping ke semua PC yang terhubung dengan server

DHCP





Melakukan browsing HTTP dengan cara double klik PC0 sehingga muncul jendela properties PC0. Pilih tab desktop, pada daftar menu, pilih web browser. Ketika jendela web browser muncul, ketikkan kegiatan2.com Sesaat setelah itu akan dihasilkan halaman web pada Server0 di web browser PC0.

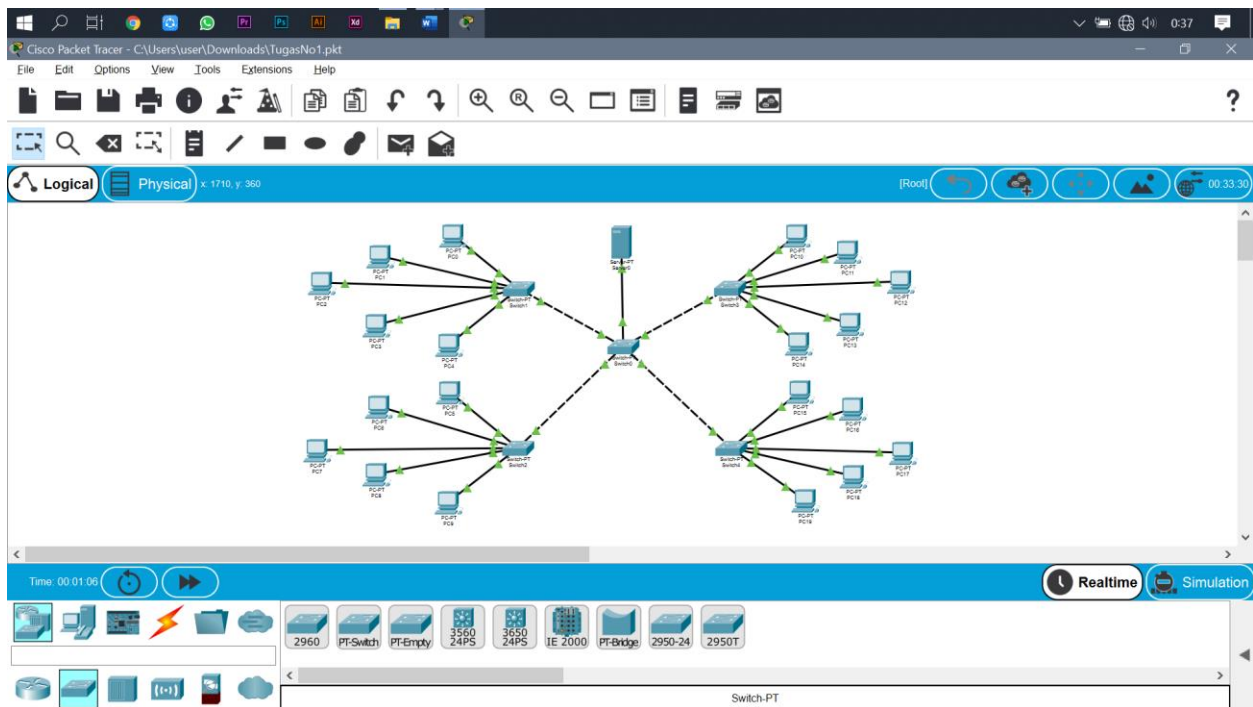


Tugas

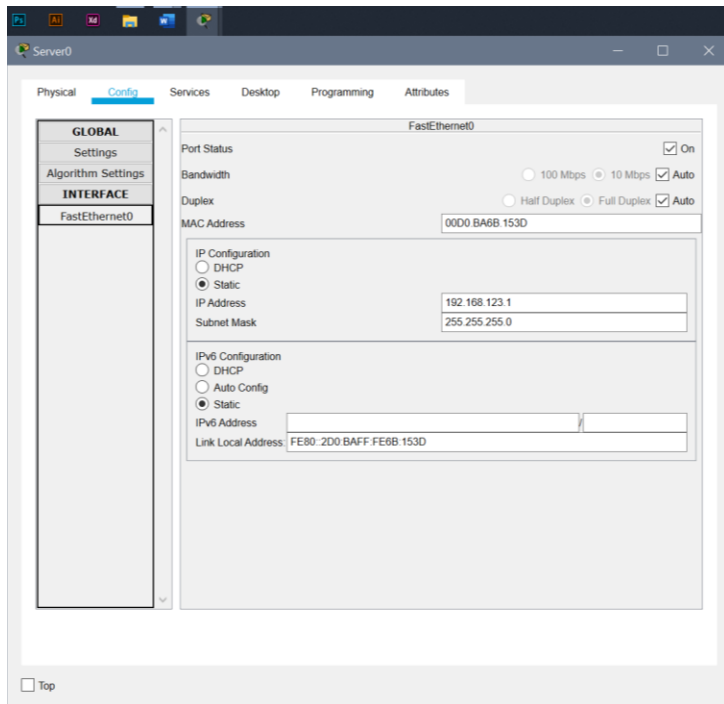
1. Buatlah DHCP Server dengan packet tracer dengan client terdiri dari 20 PC!

Jawab:

Menyusun komponen – komponen yang terdiri dari 1 server, 5 switch, dan 20 PC



Double klik Server0, memilih config. Pada menu Interface, pilih Fast-Ethernet. Pada bagian IP Configuration, isikan dengan IP Address server.



Untuk konfigurasi DHCP Server pada jendela properties server 0 pada services, DHCP. Pastikan service DHCP On. Isikan blok IP Address yang akan diberikan ke PC client. Pada start IP Address isikan dengan 192.168.123.19 dan pada maximum number of users = 20.

The screenshot shows the 'Server0' configuration window with the 'Services' tab selected. The 'DHCP' service is enabled (radio button 'On' is selected). The configuration details are as follows:

- Interface: FastEthernet0
- Service: ☒ On
- Pool Name: serverPool
- Default Gateway: 192.168.123.1
- DNS Server: 0.0.0.0
- Start IP Address: 192.168.123.19
- Subnet Mask: 255.255.255.0
- Maximum Number of Users: 20
- TFTP Server: 0.0.0.0
- WLC Address: 0.0.0.0

Below the configuration fields is a table showing the DHCP pool configuration:

Pool Name	Default Gateway	DNS Server	Start IP Address	Subnet Mask	Max User	TFTP Server	WLC Address
serverPool	192.168.123.1	0.0.0.0	192.168.123.19	255.255.255.0	20	0.0.0.0	0.0.0.0

Pada sisi client konfigurasi dilakukan dengan cara double klik pada PC, pilih tab desktop, pada menu yang ada, pilih menu IP Configuration. Pastikan pilihan radio button pada pilihan DHCP. Setelah konfigurasi selesai, silakan cek IP pada PC tersebut.

The screenshot shows the 'PC0' configuration window with the 'Desktop' tab selected. The 'IP Configuration' window is open, showing the following settings:

- Interface: FastEthernet0
- IP Configuration: ☒ DHCP
- IP Address: 192.168.123.26
- Subnet Mask: 255.255.255.0
- Default Gateway: 192.168.123.1
- DNS Server: 0.0.0.0

Below the IP Configuration section is the 'IPv6 Configuration' section:

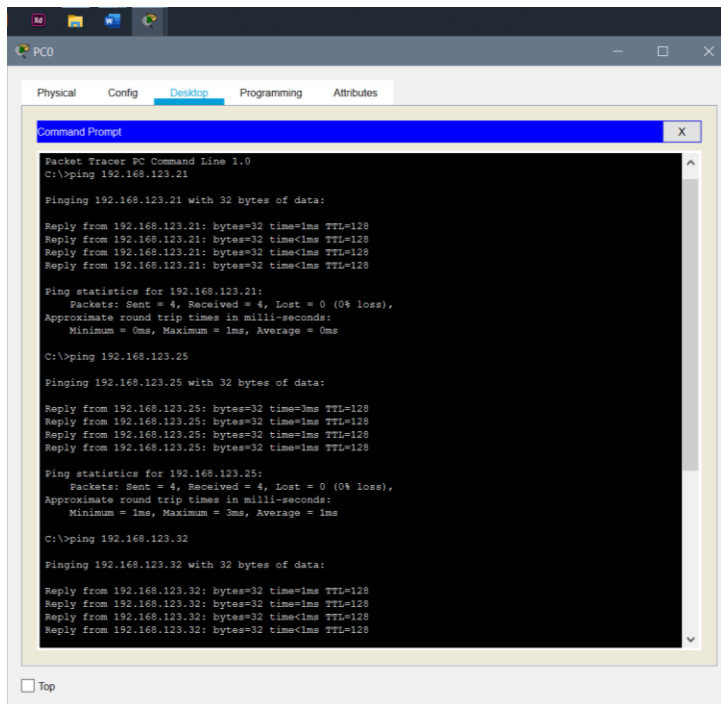
- IPv6 Configuration: ☒ Static
- IPv6 Address: [Empty field]
- Link Local Address: FE80::20C:FFFE:FE2A:7780
- IPv6 Gateway: [Empty field]
- IPv6 DNS Server: [Empty field]

At the bottom, there is a section for '802.1X' configuration:

- Use 802.1X Security: ☐
- Authentication: MD5
- Username: [Empty field]
- Password: [Empty field]

Setelah selesai konfigurasi semua, ping ke semua PC yang terhubung dengan server

DHCP



```
Packet Tracer PC Command Line 1.0
C:\>ping 192.168.123.21

Pinging 192.168.123.21 with 32 bytes of data:

Reply from 192.168.123.21: bytes=32 time=1ms TTL=128
Reply from 192.168.123.21: bytes=32 time<1ms TTL=128
Reply from 192.168.123.21: bytes=32 time<1ms TTL=128
Reply from 192.168.123.21: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.123.21:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>ping 192.168.123.25

Pinging 192.168.123.25 with 32 bytes of data:

Reply from 192.168.123.25: bytes=32 time=3ms TTL=128
Reply from 192.168.123.25: bytes=32 time=1ms TTL=128
Reply from 192.168.123.25: bytes=32 time=1ms TTL=128
Reply from 192.168.123.25: bytes=32 time=1ms TTL=128

Ping statistics for 192.168.123.25:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 1ms, Maximum = 3ms, Average = 1ms

C:\>ping 192.168.123.32

Pinging 192.168.123.32 with 32 bytes of data:

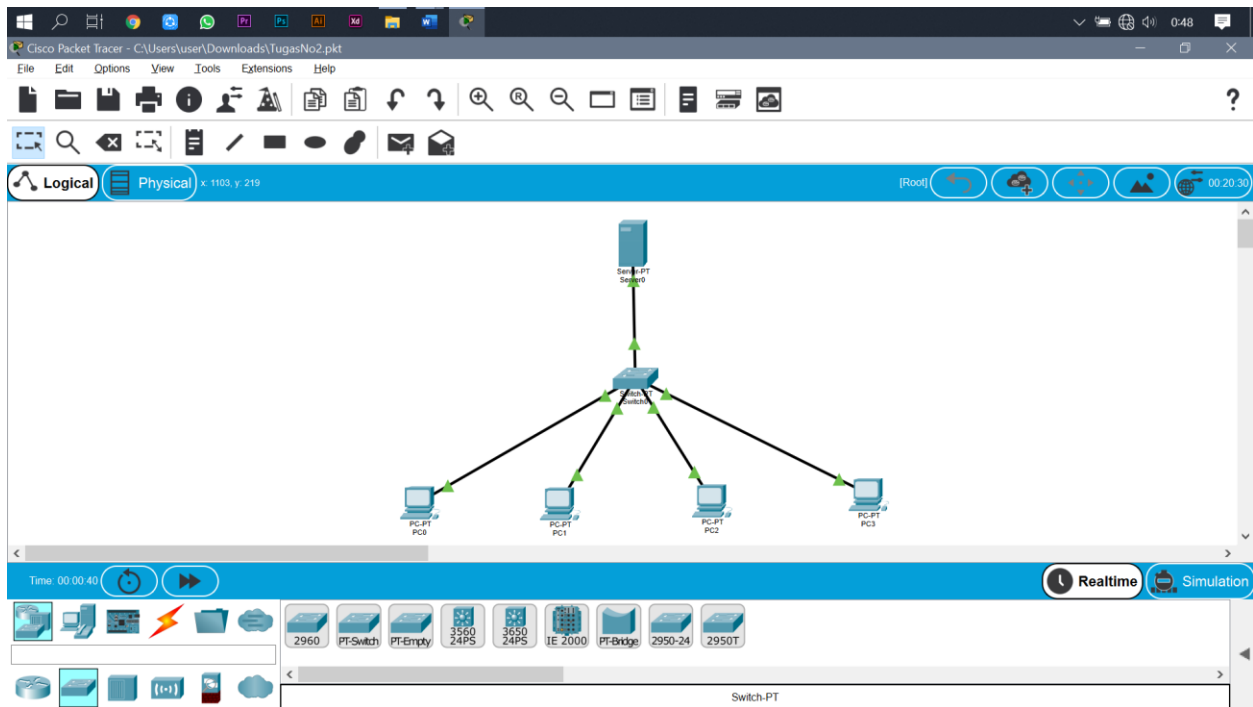
Reply from 192.168.123.32: bytes=32 time=1ms TTL=128
Reply from 192.168.123.32: bytes=32 time=1ms TTL=128
Reply from 192.168.123.32: bytes=32 time<1ms TTL=128
Reply from 192.168.123.32: bytes=32 time<1ms TTL=128
```

2. Buatlah web server pada packet tracer, dengan mengubah tampilan pada web tersebut dengan isi :

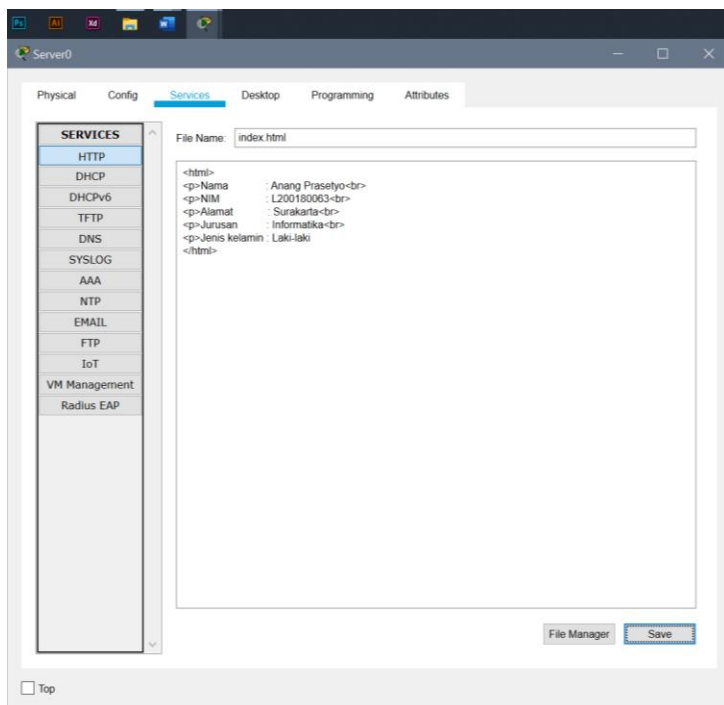
- a. Nama
- b. NIM
- c. Alamat
- d. Jurusan
- e. Jenis Kelamin

Jawab :

Merancang DHCP Server



Mengubah index.html pada HTTP



Berikut adalah screenshot tampilan pada web browser :

