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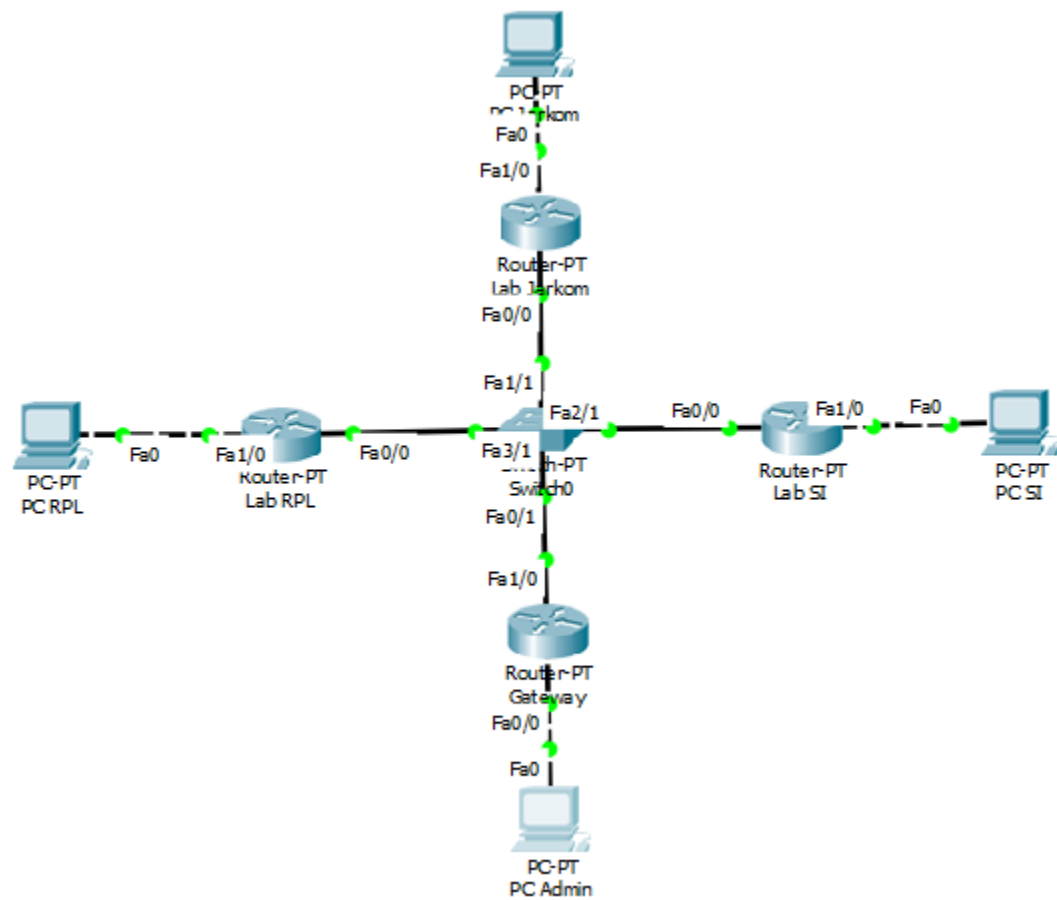
NIM : L200174074

Kelas : X

Kegiatan Praktikum

Modul 11

1. Topologi.



2. Konfigurasi Semua Router.

a. Router Jarkom.

```
Router>en
Router#config term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname Jarkom
Jarkom(config)#int fa 0/0
Jarkom(config-if)#ip address 172.16.0.1 255.255.255.0
Jarkom(config-if)#no shutdown

Jarkom(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

Jarkom(config-if)#exit
Jarkom(config)#int fa 1/0
Jarkom(config-if)#ip address 172.15.0.1 255.255.255.0
Jarkom(config-if)#no shutdown

Jarkom(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to up

Jarkom(config-if)#exit
Jarkom(config)#
```

b. Router SI.

```
Router>en
Router#config term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname SistemInformasi
SistemInformasi(config)#int fa 0/0
SistemInformasi(config-if)#ip address 172.17.0.1 255.255.255.0
SistemInformasi(config-if)#no shutdown

SistemInformasi(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

SistemInformasi(config-if)#exit
SistemInformasi(config)#int fa 1/0
SistemInformasi(config-if)#ip address 172.15.0.2 255.255.255.0
SistemInformasi(config-if)#no shutdown

SistemInformasi(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to up

SistemInformasi(config-if)#exit
SistemInformasi(config)#
```

c. Router RPL.

```
Router>en
Router#config term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname RPL
RPL(config)#int fa 0/0
RPL(config-if)#ip address 172.18.0.1 255.255.255.0
RPL(config-if)#no shutdown

RPL(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

RPL(config-if)#exit
RPL(config)#int fa 1/0
RPL(config-if)#ip address 172.15.0.3 255.255.255.0
RPL(config-if)#no shutdown

RPL(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to up

RPL(config-if)#exit
RPL(config)#
```

d. Router UMS.

```
Router>en
Router#config term
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname UMS
UMS(config)#int fa 0/0
UMS(config-if)#ip address 172.19.0.1 255.255.255.0
UMS(config-if)#no shutdown

UMS(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

UMS(config-if)#exit
UMS(config)#int fa 1/0
UMS(config-if)#ip address 172.15.0.4 255.255.255.0
UMS(config-if)#no shutdown

UMS(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to up

UMS(config-if)#exit
UMS(config)#
```

3. Konfigurasi Routing Table pada 4 Router.

a. RIP Routing Router Jarkom.

```
Jarkom>en
Jarkom#config term
Enter configuration commands, one per line. End with CNTL/Z.
Jarkom(config)#router rip
Jarkom(config-router)#network 172.15.0.0
Jarkom(config-router)#network 172.16.0.0
Jarkom(config-router)#network 172.17.0.0
Jarkom(config-router)#network 172.18.0.0
Jarkom(config-router)#network 172.19.0.0
Jarkom(config-router)#exit
Jarkom(config)#
```

b. RIP Routing Router SI.

```
SistemInformasi#config term
Enter configuration commands, one per line. End with CNTL/Z.
SistemInformasi(config)#router rip
SistemInformasi(config-router)#network 172.15.0.0
SistemInformasi(config-router)#network 172.16.0.0
SistemInformasi(config-router)#network 172.17.0.0
SistemInformasi(config-router)#network 172.18.0.0
SistemInformasi(config-router)#network 172.19.0.0
SistemInformasi(config-router)#exit
SistemInformasi(config)#
```

c. RIP Routing Router RPL.

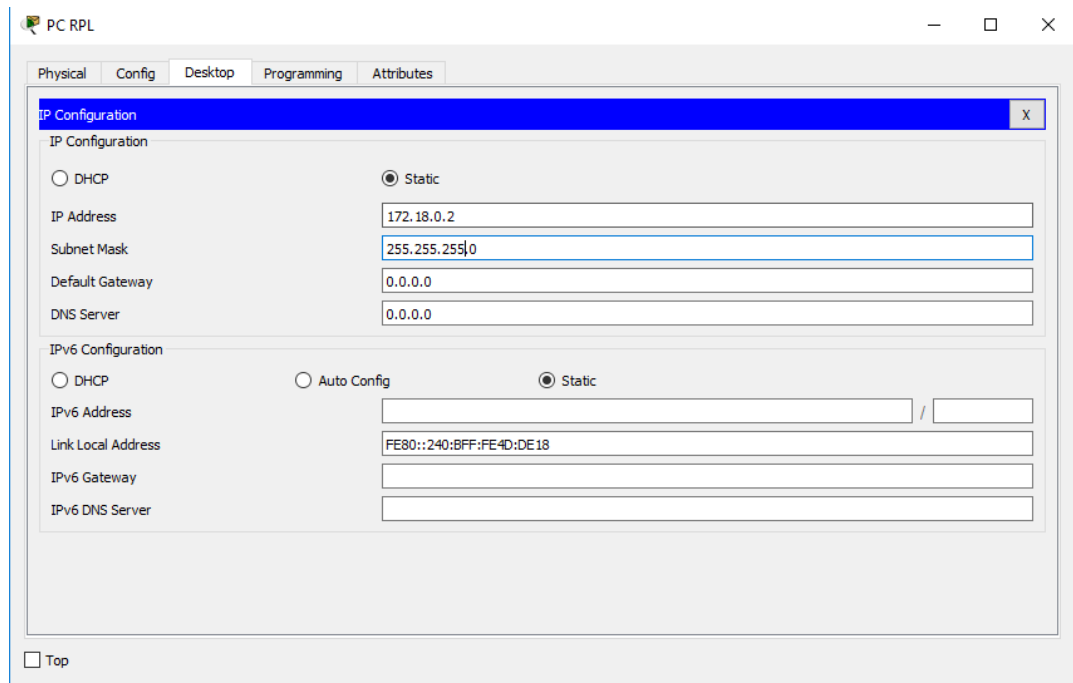
```
RPL(config)#router rip
RPL(config-router)#network 172.15.0.0
RPL(config-router)#network 172.16.0.0
RPL(config-router)#network 172.17.0.0
RPL(config-router)#network 172.18.0.0
RPL(config-router)#network 172.19.0.0
RPL(config-router)#exit
RPL(config)#
```

d. RIP Routing Router UMS.

```
UMS(config)#router rip
UMS(config-router)#network 172.15.0.0
UMS(config-router)#network 172.16.0.0
UMS(config-router)#network 172.17.0.0
UMS(config-router)#network 172.18.0.0
UMS(config-router)#network 172.19.0.0
UMS(config-router)#exit
UMS(config)#
```

4. Konfigurasi IP pada masing-masing PC.

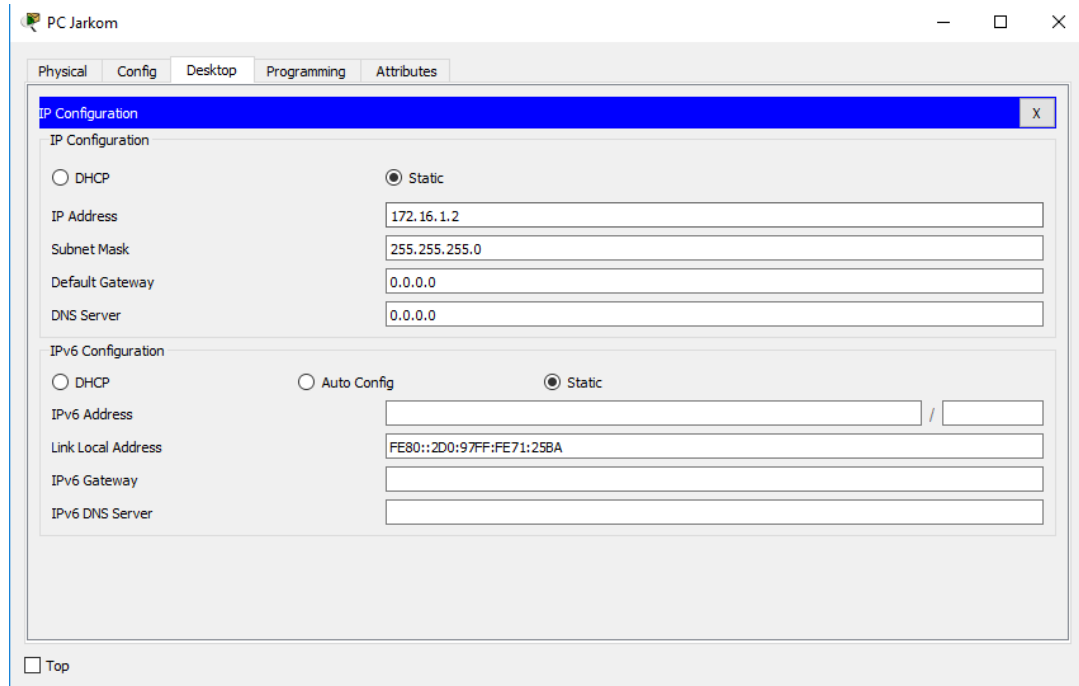
a. IP untuk PC lab RPL.



The screenshot shows the 'IP Configuration' window for 'PC RPL'. The window has tabs for Physical, Config, Desktop, Programming, and Attributes. The 'Config' tab is active, showing the 'IP Configuration' section. Under 'IP Configuration', the 'Static' radio button is selected. The fields are filled with: IP Address: 172.18.0.2, Subnet Mask: 255.255.255.0, Default Gateway: 0.0.0.0, and DNS Server: 0.0.0.0. Under 'IPv6 Configuration', the 'Static' radio button is selected. The fields are: IPv6 Address: (empty), Link Local Address: FE80::240:BFF:FE4D:DE18, IPv6 Gateway: (empty), and IPv6 DNS Server: (empty). A 'Top' button is at the bottom left.

Field	Value
IP Address	172.18.0.2
Subnet Mask	255.255.255.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0
IPv6 Address	
Link Local Address	FE80::240:BFF:FE4D:DE18
IPv6 Gateway	
IPv6 DNS Server	

b. IP untuk PC lab Jarkom.



The screenshot shows the 'IP Configuration' window for 'PC Jarkom'. The window has tabs for Physical, Config, Desktop, Programming, and Attributes. The 'Config' tab is active, showing the 'IP Configuration' section. Under 'IP Configuration', the 'Static' radio button is selected. The fields are filled with: IP Address: 172.16.1.2, Subnet Mask: 255.255.255.0, Default Gateway: 0.0.0.0, and DNS Server: 0.0.0.0. Under 'IPv6 Configuration', the 'Static' radio button is selected. The fields are: IPv6 Address: (empty), Link Local Address: FE80::2D0:97FF:FE71:25BA, IPv6 Gateway: (empty), and IPv6 DNS Server: (empty). A 'Top' button is at the bottom left.

Field	Value
IP Address	172.16.1.2
Subnet Mask	255.255.255.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0
IPv6 Address	
Link Local Address	FE80::2D0:97FF:FE71:25BA
IPv6 Gateway	
IPv6 DNS Server	

c. IP untuk PC lab SI.

The screenshot shows the 'PC SI' configuration window with the 'Config' tab selected. The 'IP Configuration' section is active, showing settings for both IPv4 and IPv6. The IPv4 configuration is set to 'Static' with an IP address of 172.17.0.2, subnet mask of 255.255.255.0, and default gateway of 0.0.0.0. The IPv6 configuration is also set to 'Static' with a link local address of FE80::2E0:8FFF:FEDA:3592. The 'Top' button is visible at the bottom left.

IP Configuration	
<input type="radio"/> DHCP <input checked="" type="radio"/> Static	
IP Address	172.17.0.2
Subnet Mask	255.255.255.0
Default Gateway	0.0.0.0
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::2E0:8FFF:FEDA:3592
IPv6 Gateway	
IPv6 DNS Server	

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d. IP untuk PC Gateway.

The screenshot shows the 'PC Admin' configuration window with the 'Config' tab selected. The 'IP Configuration' section is active, showing settings for both IPv4 and IPv6. The IPv4 configuration is set to 'Static' with an IP address of 172.16.1.2, subnet mask of 255.255.255.0, and default gateway of 0.0.0.0. The IPv6 configuration is also set to 'Static' with a link local address of FE80::290:CFF:FE05:53A9. The 'Top' button is visible at the bottom left.

IP Configuration	
<input type="radio"/> DHCP <input checked="" type="radio"/> Static	
IP Address	172.16.1.2
Subnet Mask	255.255.255.0
Default Gateway	0.0.0.0
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::290:CFF:FE05:53A9
IPv6 Gateway	
IPv6 DNS Server	

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5. Pengujian ICMP request (ping) untuk test koneksi.

a. Ping ke PC Jarkom.

```
C:\>ping 172.16.1.2

Pinging 172.16.1.2 with 32 bytes of data:

Reply from 172.16.1.2: bytes=32 time<1ms TTL=128
Reply from 172.16.1.2: bytes=32 time=1ms TTL=128
Reply from 172.16.1.2: bytes=32 time=9ms TTL=128
Reply from 172.16.1.2: bytes=32 time=5ms TTL=128

Ping statistics for 172.16.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 9ms, Average = 3ms
```

b. Ping ke PC RPL.

```
C:\>ping 172.18.0.2

Pinging 172.18.0.2 with 32 bytes of data:

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

Ping statistics for 172.18.0.2:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

c. Ping ke PC SI.

```
C:\>ping 172.17.0.2

Pinging 172.17.0.2 with 32 bytes of data:

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

Ping statistics for 172.17.0.2:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```