Nama   : Ayasha Ninda Maharani

NIM   : L200170143

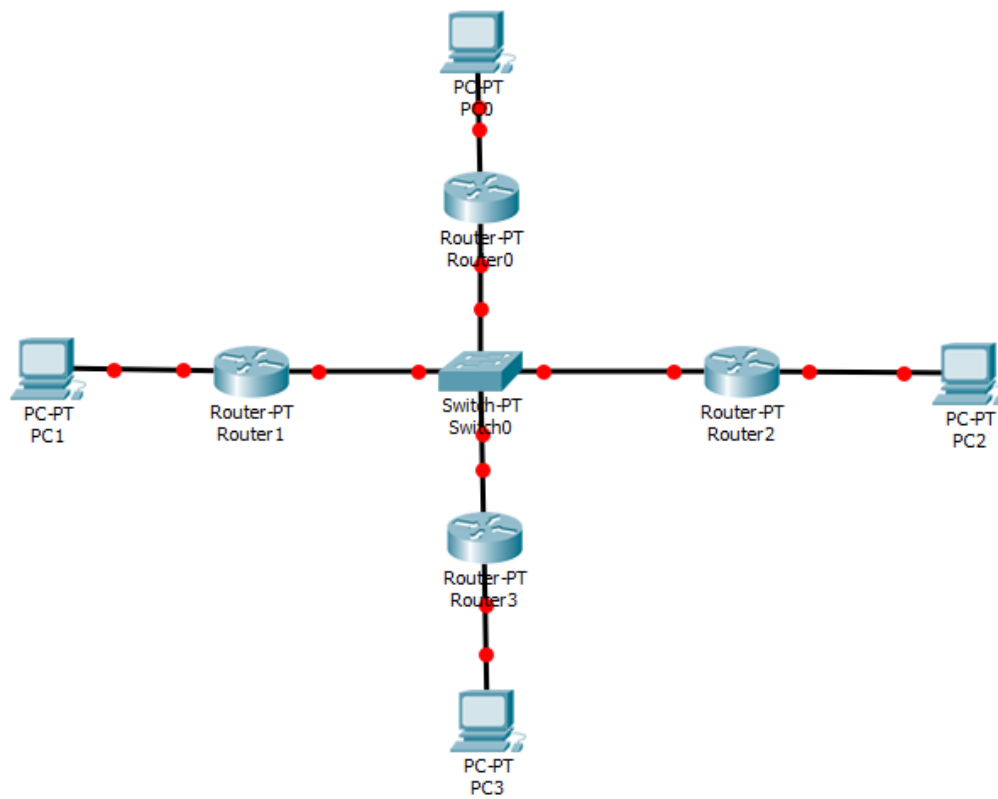Kelas   : C

MODUL 11

Perancangan Jaringan Laboratorium Sederhana

Menggunakan Packet Tracer

Kegiatan Praktikum.

1. Topologi.

2. Melakukan konfigurasi semua router.

a. Router 1

```
Router>en
Router#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#hostname Jarkom
Jarkom(config)#int fa0/0
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

Jarkom(config-if)#exit
Jarkom(config)#int fa1/0
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 2

```
Router>en
Router#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#hostname SistemInformasi
SistemInformasi(config)#int fa0/0
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

SistemInformasi(config-if)#exit
SistemInformasi(config)#int fa1/0
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 3

```
Router>en
Router#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#hostname RPL
RPL(config)#int fa0/0
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

RPL(config-if)#exit
RPL(config)#int fa1/0
RPL(config-if)#ip address 172.15.0.3 255.255.255.0
RPL(config-if)#no shutdwon
                         ^
% Invalid input detected at '^' marker.

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 4

```
Router>en
Router#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#hostname UMS
UMS(config)#int fa0/0
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

UMS(config-if)#exit
UMS(config)#int fa1/0
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. Melakukan konfigurasi Routing Table pada 4 Router.

a. Router Jarkom.

```
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. Router SI.

```
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)#
```
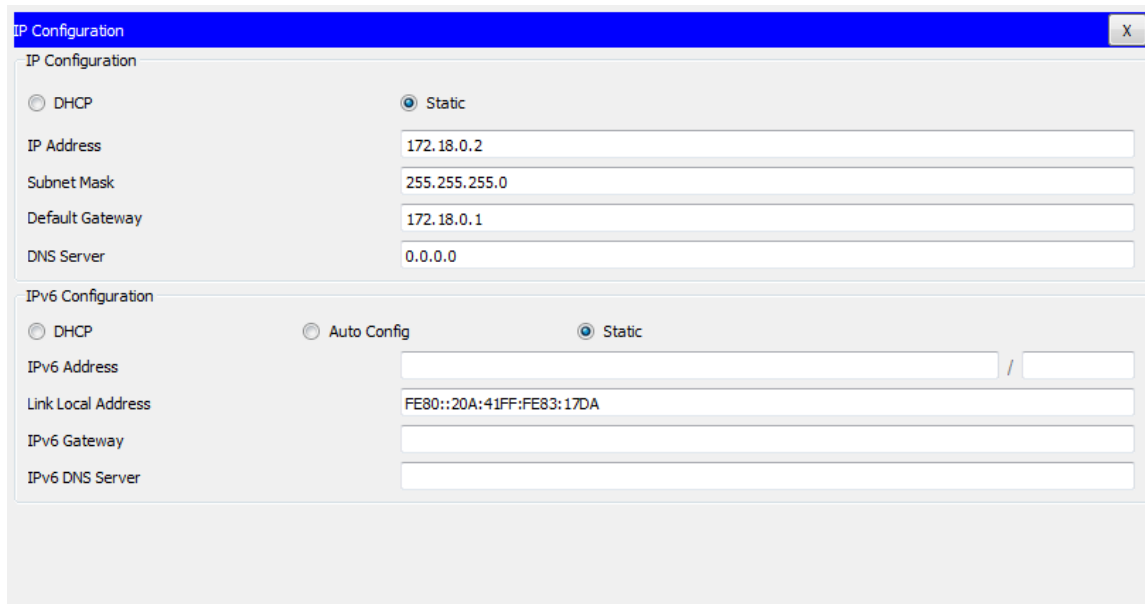
c. Router RPL.

```
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. 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. Melakukan konfigurasi masing-masing PC.

a. PC RPL.

IP Configuration

IP Configuration

○ DHCP   ● Static

IP Address   172.18.0.2
Subnet Mask   255.255.255.0
Default Gateway   172.18.0.1
DNS Server   0.0.0.0

IPv6 Configuration

○ DHCP   ○ Auto Config   ● Static
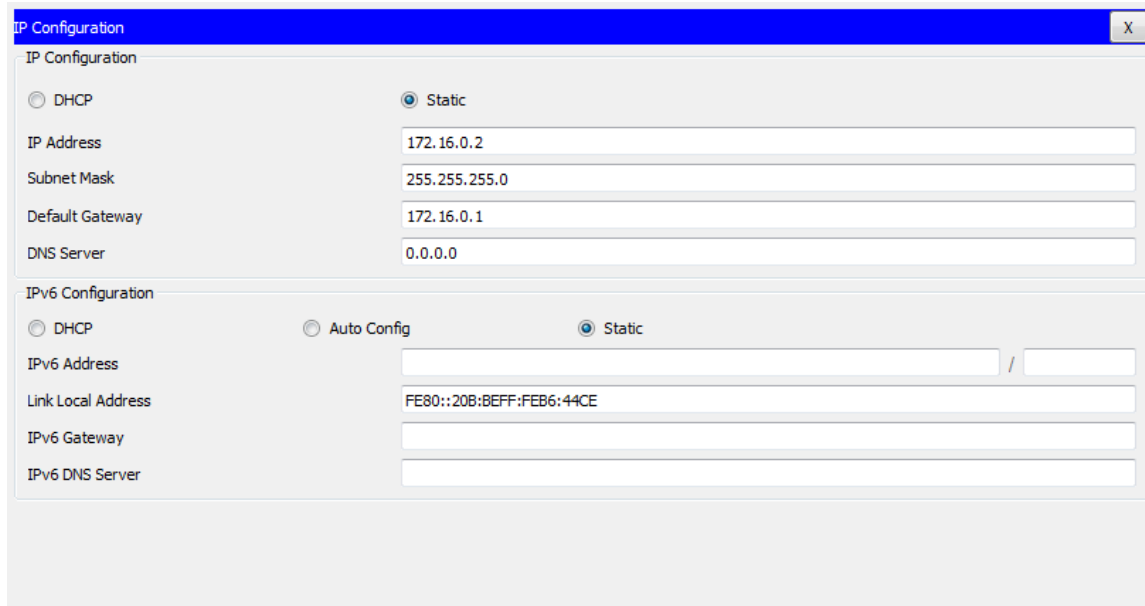IPv6 Address   /
Link Local Address   FE80::20A:41FF:FE83:17DA
IPv6 Gateway
IPv6 DNS Server

b. PC Jarkom.

IP Configuration

IP Configuration

○ DHCP   ● Static

IP Address   172.16.0.2
Subnet Mask   255.255.255.0
Default Gateway   172.16.0.1
DNS Server   0.0.0.0

IPv6 Configuration

○ DHCP   ○ Auto Config   ● Static
IPv6 Address   /
Link Local Address   FE80::20B:BEFF:FEB6:44CE
IPv6 Gateway
IPv6 DNS Server

c. PC SI.

IP Configuration

IP Configuration

○ DHCP	● Static
IP Address	172.17.0.2
Subnet Mask	255.255.255.0
Default Gateway	172.17.0.1
DNS Server	0.0.0.0

IPv6 Configuration

○ DHCP	○ Auto Config	● Static
IPv6 Address		/
Link Local Address	FE80::20C:CFFF:FEE5:2AD4	
IPv6 Gateway		
IPv6 DNS Server		

d. PC Gateway.

IP Configuration

IP Configuration

○ DHCP	● Static
IP Address	172.19.0.2
Subnet Mask	255.255.255.0
Default Gateway	172.19.0.1
DNS Server	0.0.0.0

IPv6 Configuration

○ DHCP	○ Auto Config	● Static
IPv6 Address		/
Link Local Address	FE80::2E0:B0FF:FE52:CEE3	
IPv6 Gateway		
IPv6 DNS Server		

5. Melakukan Ping

```
C:\>ping 172.16.0.2

Pinging 172.16.0.2 with 32 bytes of data:

Reply from 172.16.0.2: bytes=32 time=1ms TTL=126
Reply from 172.16.0.2: bytes=32 time<1ms TTL=126
Reply from 172.16.0.2: bytes=32 time<1ms TTL=126
Reply from 172.16.0.2: bytes=32 time<1ms TTL=126

Ping statistics for 172.16.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

```
C:\>ping 172.17.0.2

Pinging 172.17.0.2 with 32 bytes of data:

Reply from 172.17.0.2: bytes=32 time<1ms TTL=126
Reply from 172.17.0.2: bytes=32 time<1ms TTL=126
Reply from 172.17.0.2: bytes=32 time=1ms TTL=126
Reply from 172.17.0.2: bytes=32 time<1ms TTL=126

Ping statistics for 172.17.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

```
C:\>ping 172.18.0.2

Pinging 172.18.0.2 with 32 bytes of data:

Reply from 172.18.0.2: bytes=32 time=1ms TTL=126
Reply from 172.18.0.2: bytes=32 time=1ms TTL=126
Reply from 172.18.0.2: bytes=32 time<1ms TTL=126
Reply from 172.18.0.2: bytes=32 time<1ms TTL=126

Ping statistics for 172.18.0.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
```