

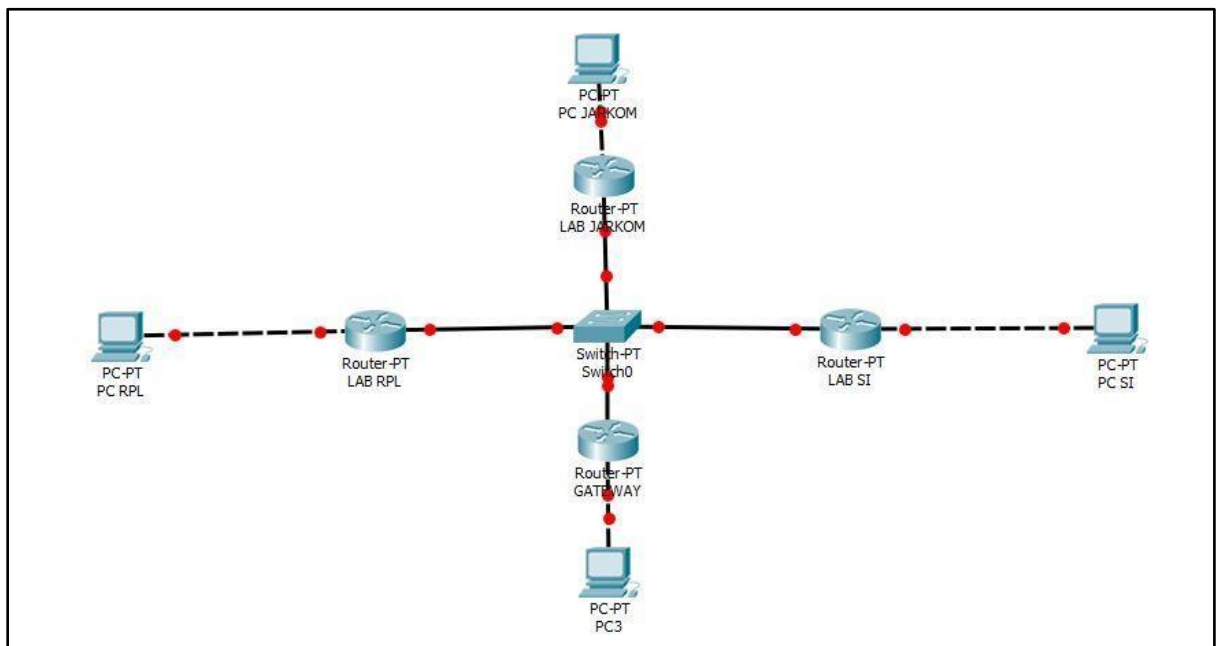
**NAMA : ANNAS FAGIAT**

**NIM : L200170163**

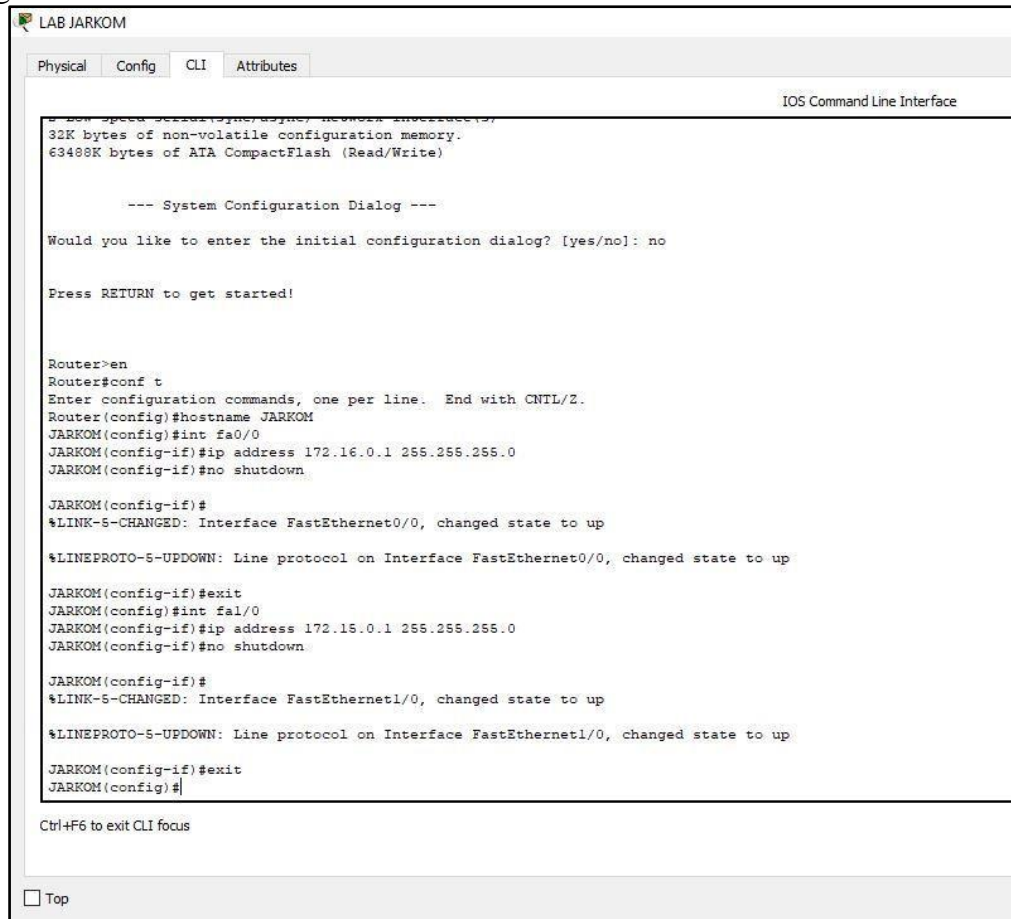
**KELAS : D**

**PRAKTIKUM MODUL 10 JARINGAN  
KOMPUTER  
( Perancangan Jaringan Laboratorium Sederhana  
Menggunakan Packet Tracer )**

1. Buat topologi seperti pada gambar.



## 2. Konfigurasi semua router a. Router Jarkom



The screenshot displays the LAB JARKOM interface with tabs for Physical, Config, CLI, and Attributes. The CLI tab is active, showing the IOS Command Line Interface. The interface displays the following text:

```
Router>en
Router#conf t
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
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

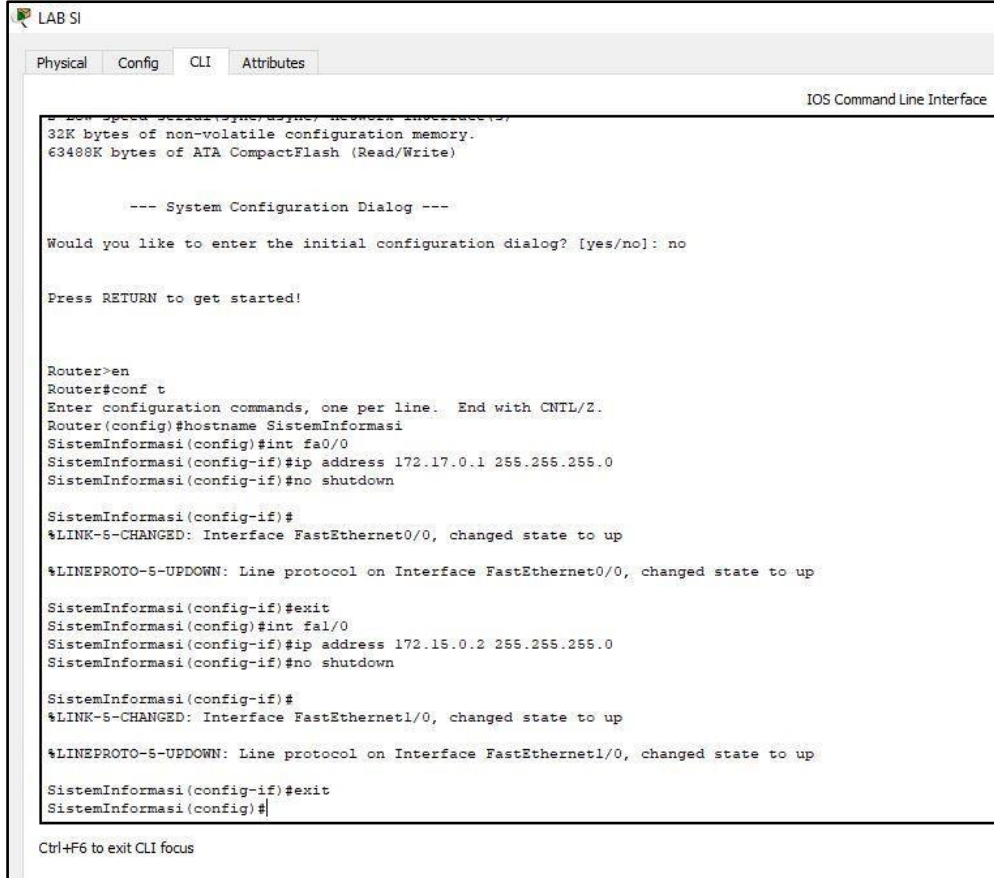
JARKOM(config-if)#exit
JARKOM(config)#int fa1/0
JARKOM(config-if)#ip address 172.15.0.1 255.255.255.0
JARKOM(config-if)#no shutdown

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)#
```

At the bottom of the CLI window, there is a prompt: "Ctrl+F6 to exit CLI focus". Below the CLI window, there is a checkbox labeled "Top".

## b. Router SI



LAB SI

Physical Config CLI Attributes

IOS Command Line Interface

```
32K bytes of non-volatile configuration memory.
63488K bytes of ATA CompactFlash (Read/Write)

--- System Configuration Dialog ---

Would you like to enter the initial configuration dialog? [yes/no]: no

Press RETURN to get started!

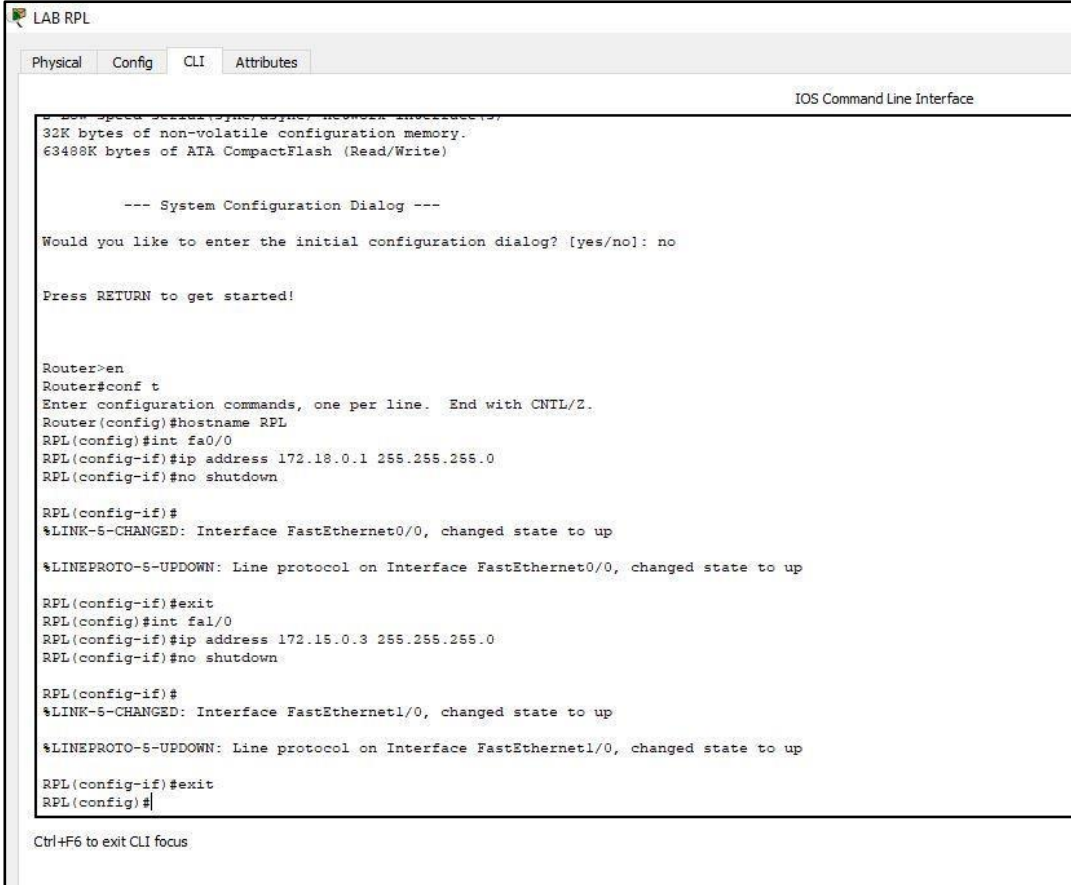
Router>en
Router#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#hostname SistemInformasi
SistemInformasi(config)#int fa0/0
SistemInformasi(config-if)#ip address 172.17.0.1 255.255.255.0
SistemInformasi(config-if)#no shutdown

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

Ctrl+F6 to exit CLI focus
```

### c. Router RPL



LAB RPL

Physical Config CLI Attributes

IOS Command Line Interface

```
Low Speed Serial (sync/async) network interface(s)
32K bytes of non-volatile configuration memory.
63488K bytes of ATA CompactFlash (Read/Write)

--- System Configuration Dialog ---

Would you like to enter the initial configuration dialog? [yes/no]: no

Press RETURN to get started!

Router>en
Router#conf t
Enter configuration commands, one per line. End with CNIL/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

%LINEPROTO-5-UPDOWN: Line protocol on 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 shutdown

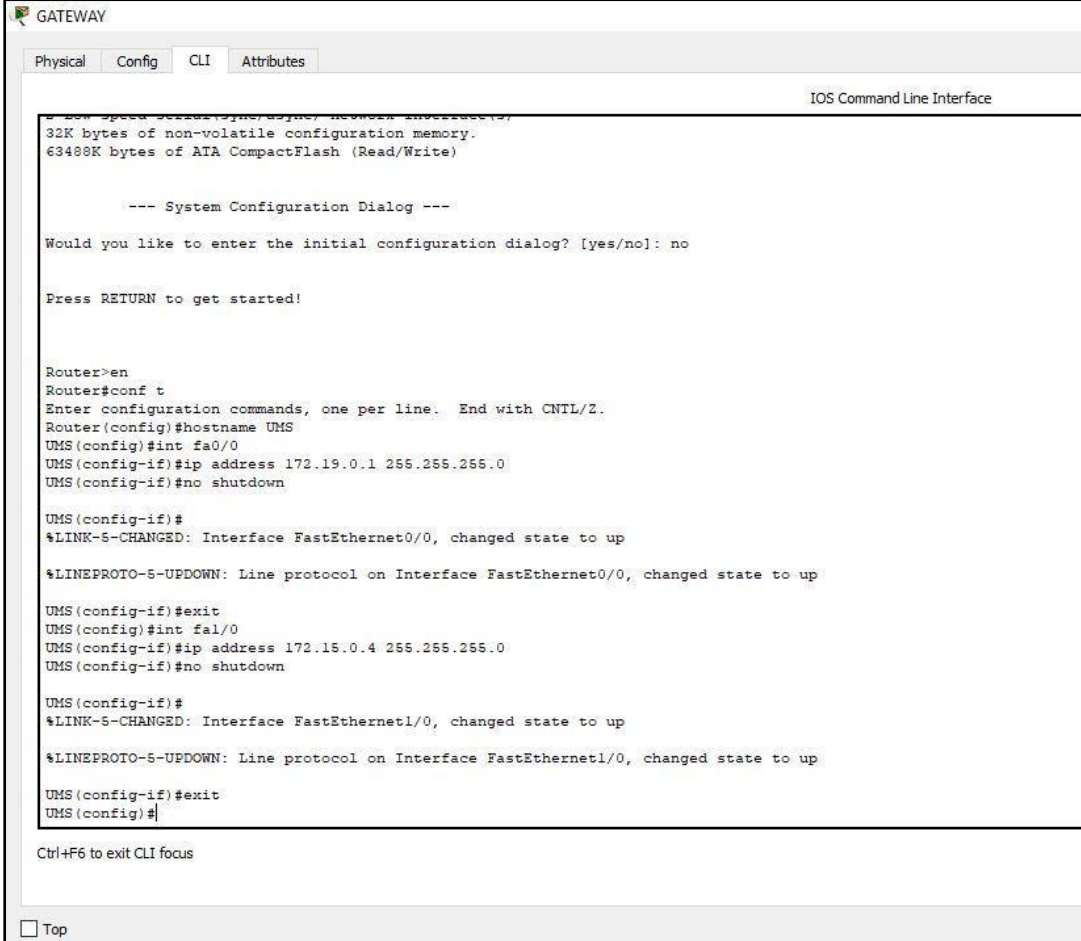
RPL(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up

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

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

Ctrl+F6 to exit CLI focus

#### d. Router UMS



The screenshot shows a web-based configuration interface for a device named 'GATEWAY'. It has tabs for 'Physical', 'Config', 'CLI', and 'Attributes'. The 'CLI' tab is active, displaying the 'IOS Command Line Interface'. The interface shows the following text:

```
32K bytes of non-volatile configuration memory.
63488K bytes of ATA CompactFlash (Read/Write)

--- System Configuration Dialog ---

Would you like to enter the initial configuration dialog? [yes/no]: no

Press RETURN to get started!

Router>en
Router#conf t
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
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

UMS(config-if)#exit
UMS(config)#int fal/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)#

Ctrl+F6 to exit CLI focus
```

At the bottom left, there is a checkbox labeled 'Top'.

### 3. Konfigurasi routing table pada 4 router

a. Router Jarkom

```
JARKOM(config)#router rip
JARKOM(config-router)#network 172.15.0.0
JARKOM(config-router)#networj 172.16.0.0
      ^
% Invalid input detected at '^' marker.

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)#
```

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)#
```

Ctrl+F6 to exit CLI focus

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)#
```

Ctrl+F6 to exit CLI focus

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)#
```

4. Konfigurasi IP pada masing-masing PC

a. PC Jarkom

The screenshot shows the 'PC JARKOM' configuration window with the 'Config' tab selected. The 'IP Configuration' section is active, displaying settings for both IPv4 and IPv6. The IPv4 configuration is set to 'Static' with an IP Address of 172.16.0.2, Subnet Mask of 255.255.255.0, Default Gateway of 172.16.0.1, and DNS Server of 0.0.0.0. The IPv6 configuration is also set to 'Static' with an empty IPv6 Address field, a Link Local Address of FE80::2D0:D3FF:FE30:5C09, and empty fields for IPv6 Gateway and IPv6 DNS Server. A 'Top' button is located at the bottom left of the window.

IP Configuration	
<input type="radio"/> DHCP <input checked="" type="radio"/> 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	
<input type="radio"/> DHCP <input type="radio"/> Auto Config <input checked="" type="radio"/> Static	
IPv6 Address	/
Link Local Address	FE80::2D0:D3FF:FE30:5C09
IPv6 Gateway	
IPv6 DNS Server	

☐ Top

b. PC SI

PC SI

Physical Config Desktop Programming Attributes

IP Configuration X

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::201:C9FF:FE82:A4C1

IPv6 Gateway

IPv6 DNS Server

☐ Top

c. PC RPL

PC RPL

Physical Config Desktop Programming Attributes

IP Configuration X

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::260:3EFF:FE4C:A785

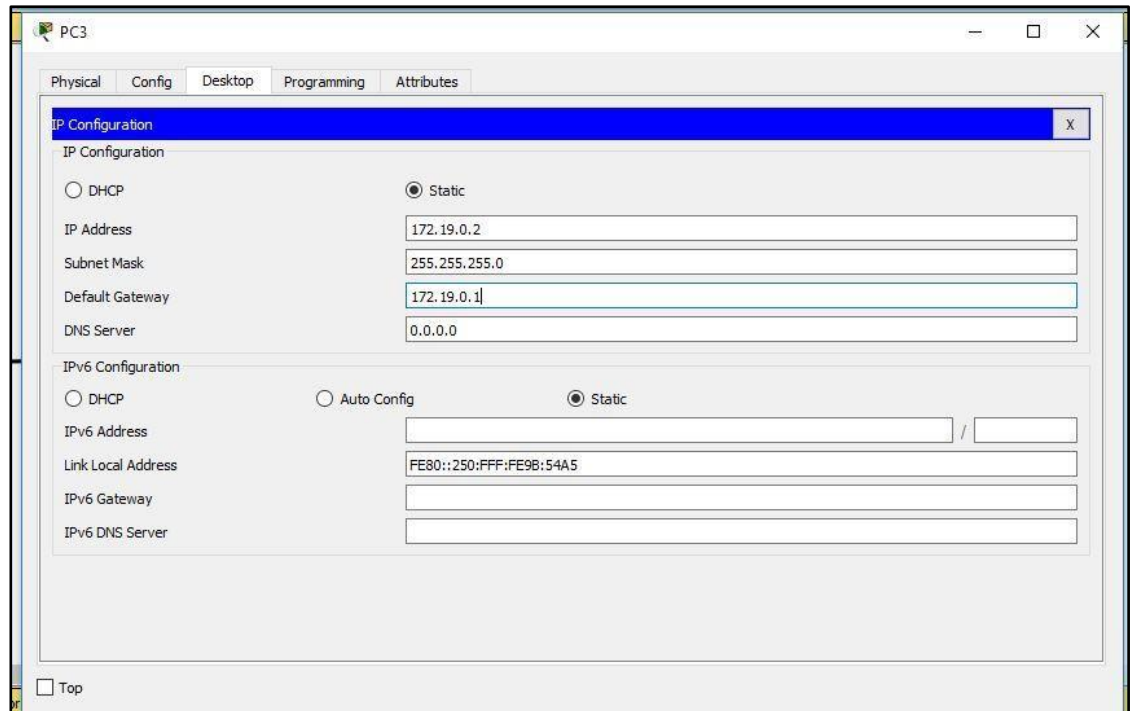
IPv6 Gateway

IPv6 DNS Server

☐ Top



d. PC UMS



5. Lakukan pengujian ICMP request(ping) untuk test koneksi a. PC UMS ke PC Jarkom

```
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=12ms TTL=126
Reply from 172.16.0.2: bytes=32 time=12ms TTL=126
Reply from 172.16.0.2: bytes=32 time=12ms 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 = 1ms, Maximum = 12ms, Average = 9ms
```

b. PC UMS ke PC SI

```
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=15ms TTL=126
Reply from 172.18.0.2: bytes=32 time=19ms TTL=126
Reply from 172.18.0.2: bytes=32 time=12ms 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 = 19ms, Average = 11ms

C:\>
```

c. PC UMS ke PC RPL

```
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=19ms TTL=126
```

```
Reply from 172.17.0.2: bytes=32 time=10ms TTL=126
```

```
Reply from 172.17.0.2: bytes=32 time=12ms 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 = 19ms, Average = 10ms
```