

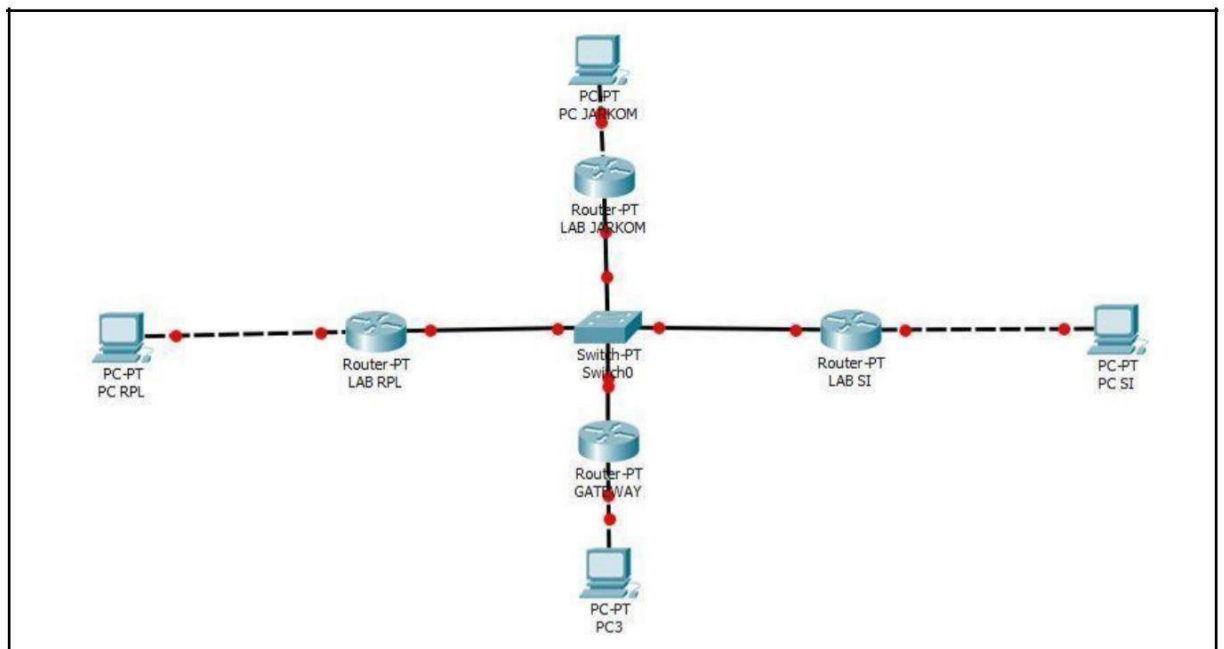
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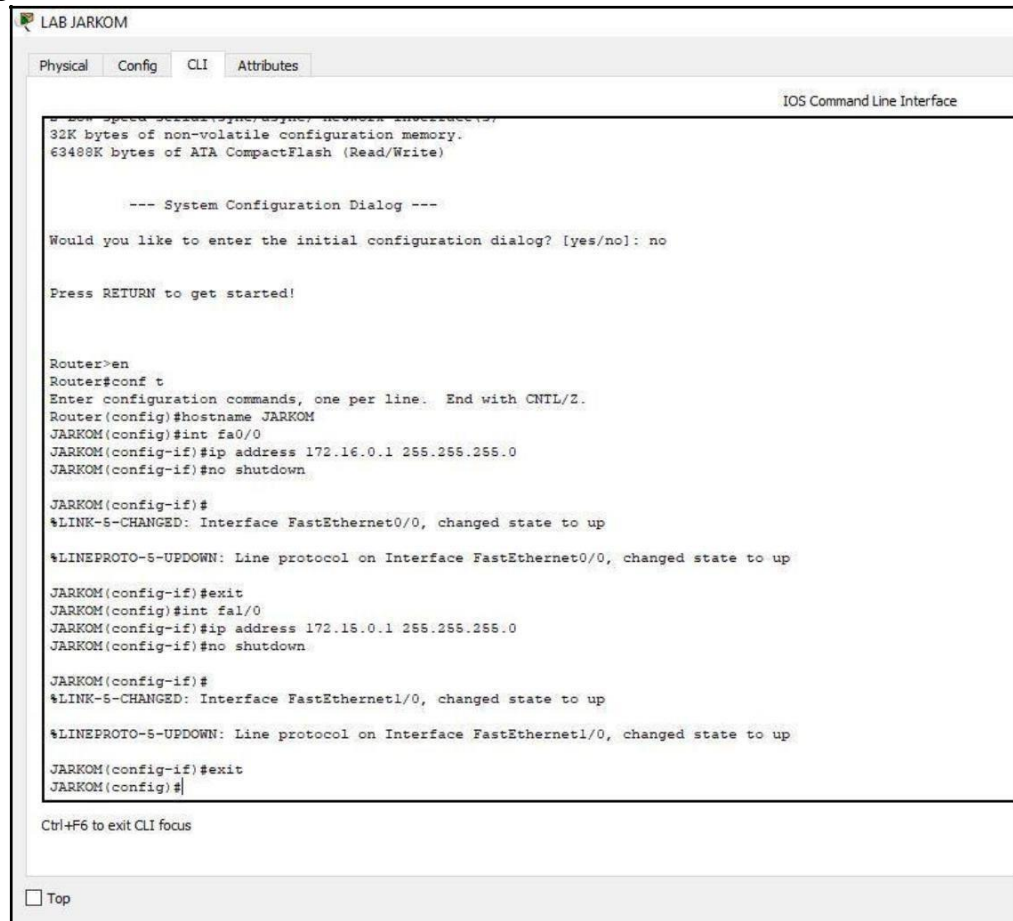
Kelas : D

## Modul 11

1. Buat topologi seperti pada gambar.



## 2. Konfigurasi semua router a. Router Jarkom



The screenshot displays the 'LAB JARKOM' window with the 'CLI' tab selected. The 'IOS Command Line Interface' shows the following sequence of commands and system responses:

```
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

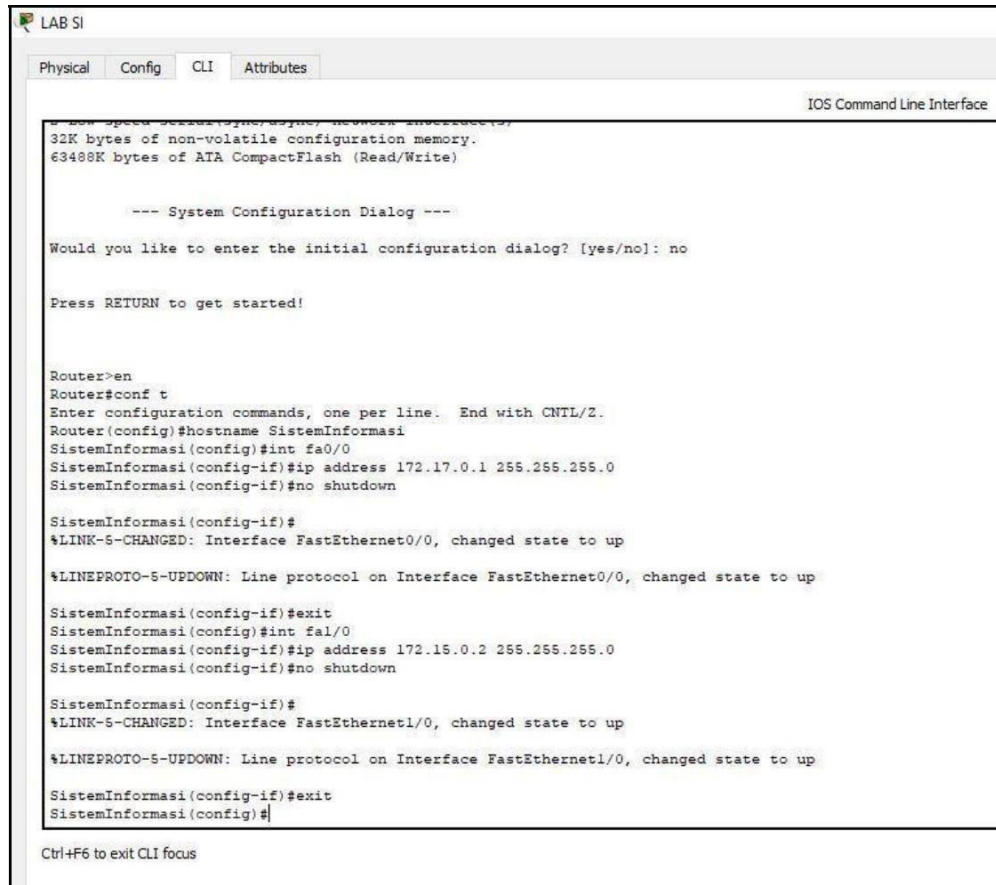
JARKOM(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up

%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, a message reads: 'Ctrl+F6 to exit CLI focus'. Below the CLI window, there is a 'Top' button with a checkbox next to it.

## b. Router SI



The screenshot shows a network simulator window titled 'LAB SI'. It has four tabs: 'Physical', 'Config', 'CLI', and 'Attributes'. The 'CLI' tab is active, displaying the 'IOS Command Line Interface'. The interface shows the router's memory status (32K bytes of non-volatile configuration memory, 63488K bytes of ATA CompactFlash (Read/Write)), a system configuration dialog asking to enter the initial configuration (answered 'no'), and the CLI session. The user enters 'en' to enter privileged mode, then 'conf t' to enter configuration mode. They configure the router's hostname to 'SistemInformasi', enable interface 'fa0/0', assign IP address '172.17.0.1' with subnet mask '255.255.255.0', and no shutdown. Status messages show the interface and line protocol coming up. They then configure interface 'fa1/0' with IP address '172.15.0.2' and subnet mask '255.255.255.0', and no shutdown. Status messages show this interface and line protocol also coming up. Finally, they exit configuration mode and return to the privileged prompt. A footer note says 'Ctrl+F6 to exit CLI focus'.

```
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

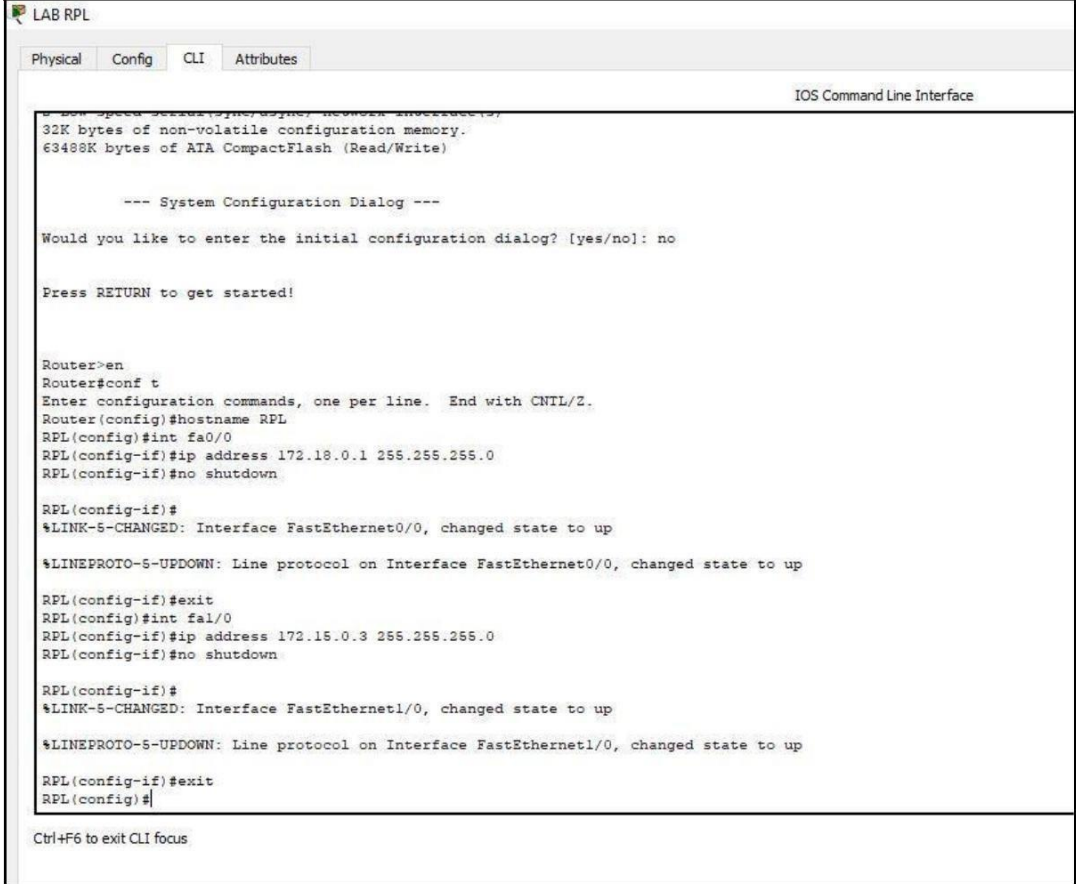
SistemInformasi(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up

%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

Router>show speed status(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

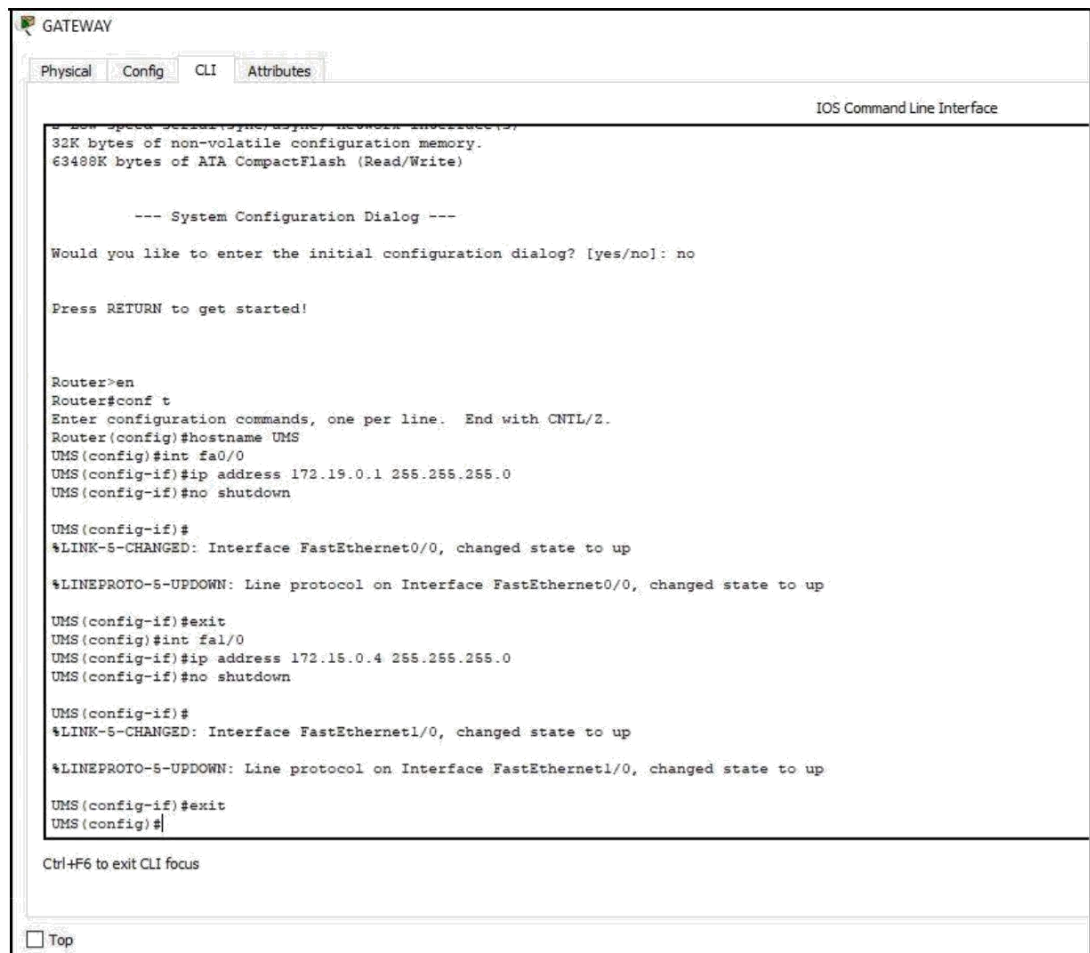
RPL(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up

%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



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)#network 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)#
```

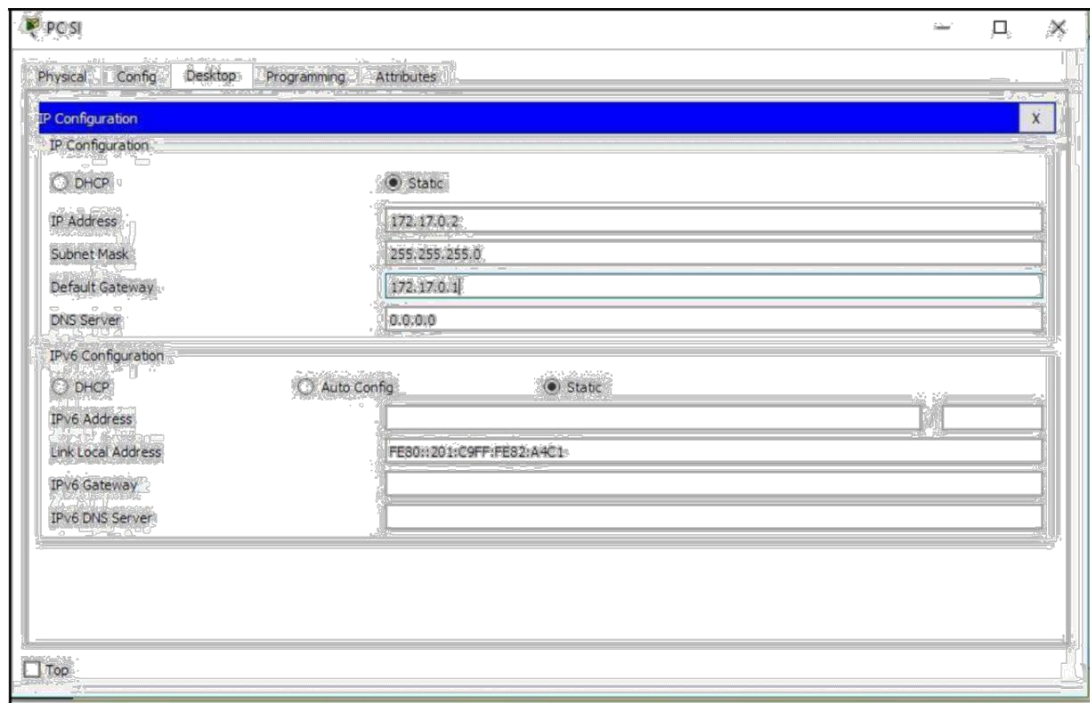
4. Konfigurasi IP pada masing- masing PC

a. PC Jarkom

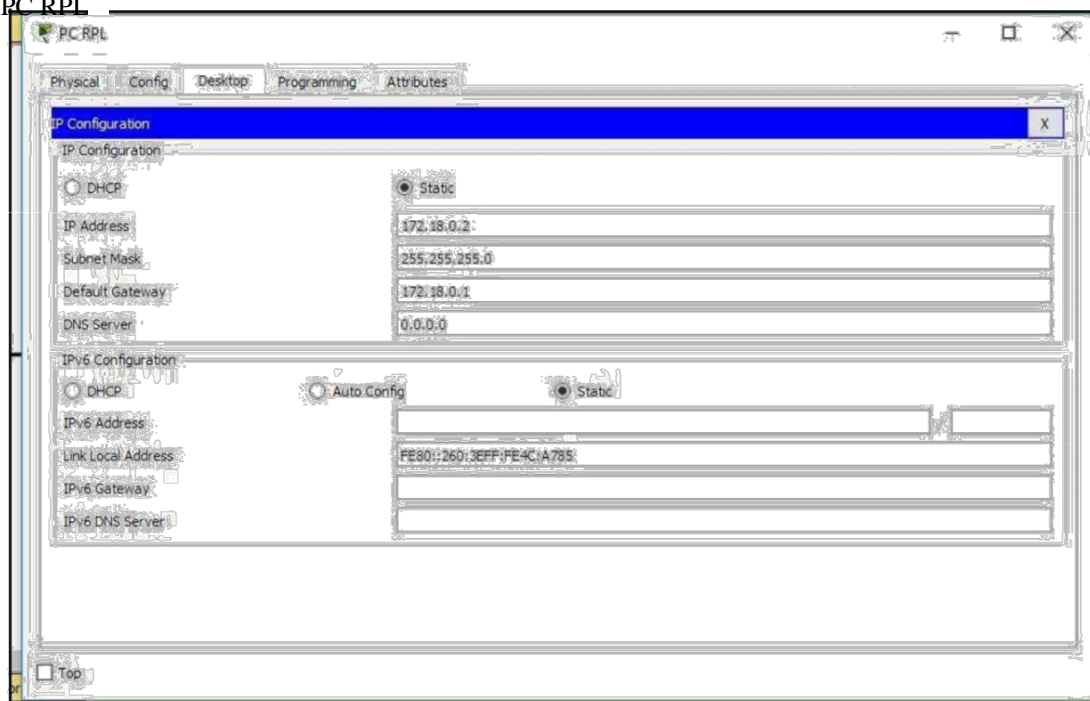
The screenshot shows the 'PC JARKOM' configuration window with the 'Config' tab selected. The 'IP Configuration' section is active, showing options for DHCP and Static IP. The Static IP option is selected. The IP Address is set to 172.16.0.2, Subnet Mask to 255.255.255.0, Default Gateway to 172.16.0.1,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

Configuration Section	Option	Value
IP Configuration	DHCP	<input type="radio"/>
	Static	<input checked="" type="radio"/>
	IP Address	172.16.0.2
	Subnet Mask	255.255.255.0
	Default Gateway	172.16.0.1
IPv6 Configuration	DHCP	<input type="radio"/>
	Auto Config	<input type="radio"/>
	Static	<input checked="" type="radio"/>
	IPv6 Address	FE80::2D0:D3FF:FE30:5C09
	Link Local Address	FE80::2D0:D3FF:FE30:5C09

b. PC SI

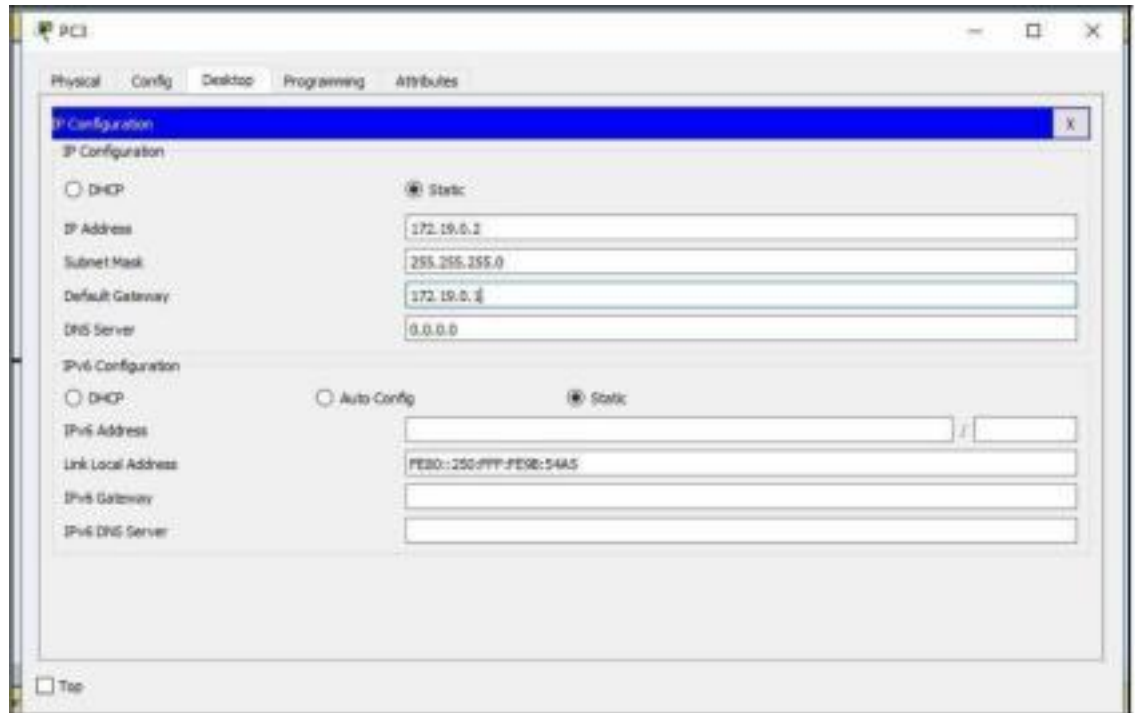


c. PC RPL





d. PC UMS



2. 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
```