LAPORAN PROYEK AKHIR

PRAKTIKUM KONSEP JARINGAN

Dr. Ferry Astika Saputra ST, M.Sc

Nama : Alga Vania Salsabillah
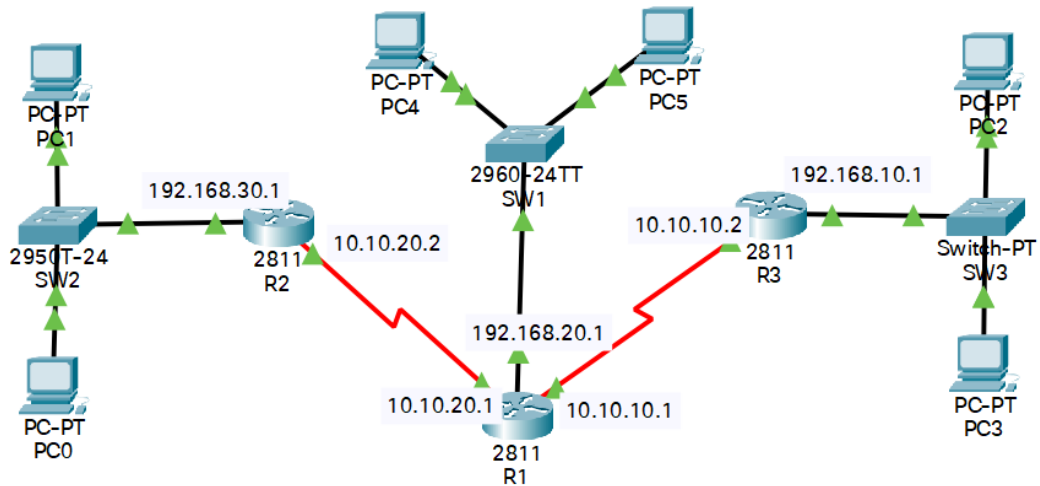
Kelas   : 2/D4 Teknik Informatika A

NRP   : 3122600010

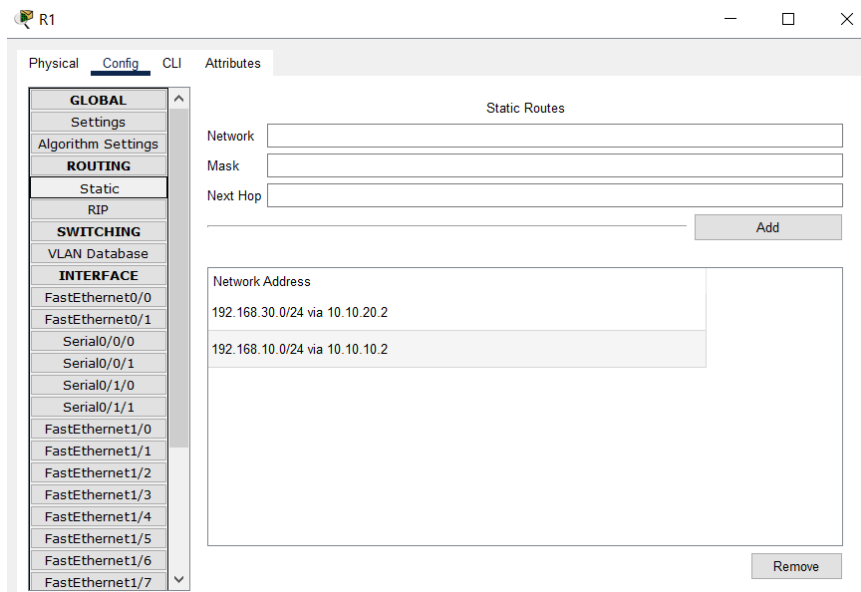# Laporan Proyek Akhir

Praktikum Konsep Jaringan

Soal 1

Konfigurasikan tabel routing pada R1, R2 dan R3 dengan menggunakan statik routing sehungga seluruh PC yang ada dapat terhubung dengan baik.

Jawaban:

Konfigurasi Router:

R2

Physical Config CLI Attributes

GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
SWITCHING
VLAN Database
INTERFACE
FastEthernet0/0
FastEthernet0/1
Serial0/0/0
Serial0/0/1
Serial0/1/0
Serial0/1/1
FastEthernet1/0
FastEthernet1/1
FastEthernet1/2
FastEthernet1/3
FastEthernet1/4
FastEthernet1/5
FastEthernet1/6
FastEthernet1/7

Static Routes

Network

Mask

Next Hop

Add

Network Address

192.168.20.0/24 via 10.10.20.1

192.168.10.0/24 via 10.10.20.1

Remove

R3

Physical Config CLI Attributes

GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
SWITCHING
VLAN Database
INTERFACE
FastEthernet0/0
FastEthernet0/1
Serial0/0/0
Serial0/0/1
Serial0/1/0
Serial0/1/1
FastEthernet1/0
FastEthernet1/1
FastEthernet1/2
FastEthernet1/3
FastEthernet1/4
FastEthernet1/5
FastEthernet1/6
FastEthernet1/7

Static Routes
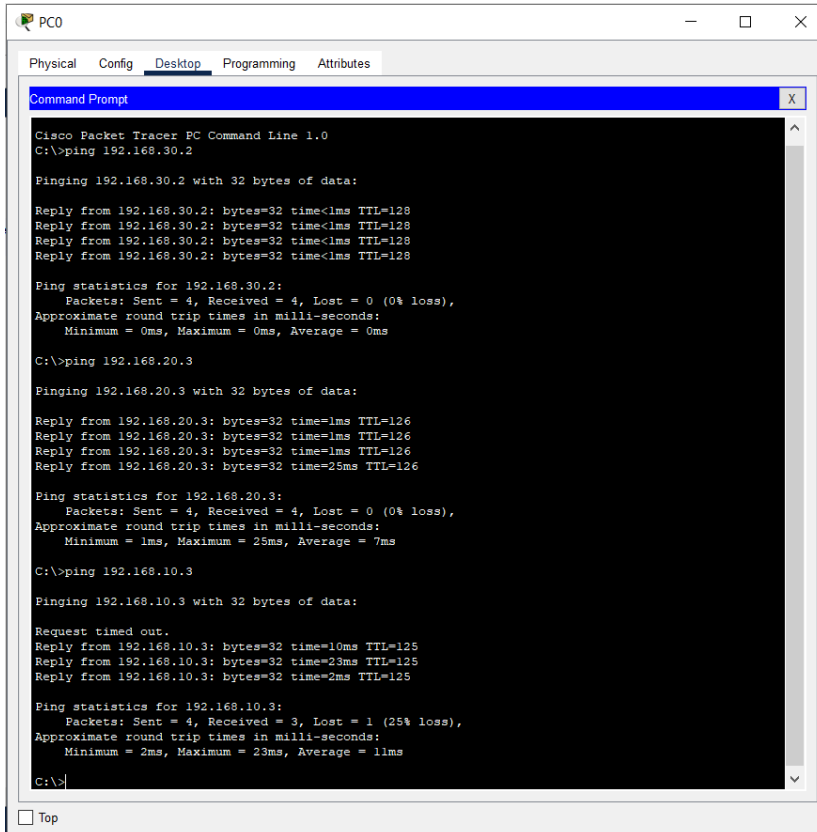
Network

Mask

Next Hop

Add

Network Address

192.168.30.0/24 via 10.10.10.1

192.168.20.0/24 via 10.10.10.1

Remove

Equivalent IOS Commands

Ping antar device:

PC5 — □ × ☐

Physical | Config | Desktop | Programming | Attributes

Command Prompt | X

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.20.3

Pinging 192.168.20.3 with 32 bytes of data:

Reply from 192.168.20.3: bytes=32 time<1ms TTL=128
Reply from 192.168.20.3: bytes=32 time=25ms TTL=128
Reply from 192.168.20.3: bytes=32 time<1ms TTL=128
Reply from 192.168.20.3: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.20.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 25ms, Average = 6ms

C:\>ping 192.168.30.3

Pinging 192.168.30.3 with 32 bytes of data:

Reply from 192.168.30.3: bytes=32 time=1ms TTL=126
Reply from 192.168.30.3: bytes=32 time=1ms TTL=126
Reply from 192.168.30.3: bytes=32 time=2ms TTL=126
Reply from 192.168.30.3: bytes=32 time=1ms TTL=126

Ping statistics for 192.168.30.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 2ms, Average = 1ms

C:\>ping 192.168.10.3

Pinging 192.168.10.3 with 32 bytes of data:

Reply from 192.168.10.3: bytes=32 time=11ms TTL=126
Reply from 192.168.10.3: bytes=32 time=1ms TTL=126
Reply from 192.168.10.3: bytes=32 time=1ms TTL=126
Reply from 192.168.10.3: bytes=32 time=9ms TTL=126

Ping statistics for 192.168.10.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 11ms, Average = 5ms

C:\>
```
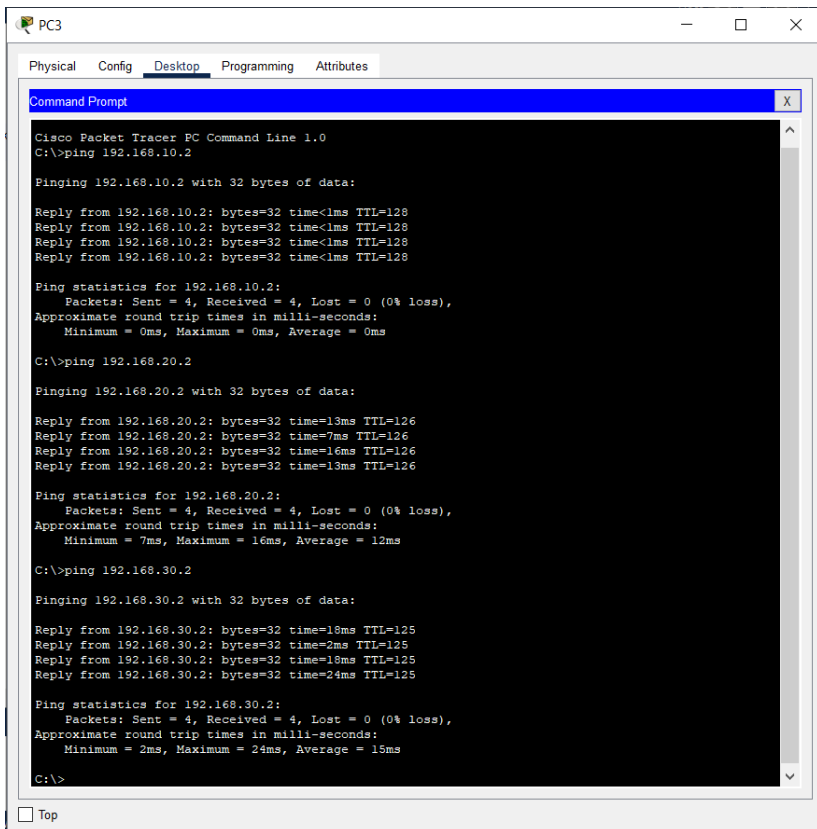
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Soal 2

Kofigurasi tabel routing pada R1, R2 dan R3 dengan menggunakan RIP sehingga seluruh PC dapat terhubung ke ISP dengan baik.

Jawaban:

Konfigurasi Router:

Ping antar device:

PC5

Physical | Config | Desktop | Programming | Attributes

Command Prompt   X

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.10.2

Pinging 192.168.10.2 with 32 bytes of data:

Reply from 192.168.10.2: bytes=32 time<1ms TTL=127
Reply from 192.168.10.2: bytes=32 time<1ms TTL=127
Reply from 192.168.10.2: bytes=32 time<1ms TTL=127
Reply from 192.168.10.2: bytes=32 time<1ms TTL=127

Ping statistics for 192.168.10.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>ping 192.168.20.2

Pinging 192.168.20.2 with 32 bytes of data:

Reply from 192.168.20.2: bytes=32 time=14ms TTL=126
Reply from 192.168.20.2: bytes=32 time=18ms TTL=126
Reply from 192.168.20.2: bytes=32 time=14ms TTL=126
Reply from 192.168.20.2: bytes=32 time=11ms TTL=126

Ping statistics for 192.168.20.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 11ms, Maximum = 18ms, Average = 14ms

C:\>ping 200.100.10.0

Pinging 200.100.10.0 with 32 bytes of data:

Reply from 10.10.10.1: bytes=32 time=12ms TTL=254
Reply from 10.10.10.1: bytes=32 time=32ms TTL=254
Reply from 10.10.10.1: bytes=32 time=18ms TTL=254
Reply from 10.10.10.1: bytes=32 time=2ms TTL=254

Ping statistics for 200.100.10.0:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 2ms, Maximum = 32ms, Average = 16ms

C:\>
```
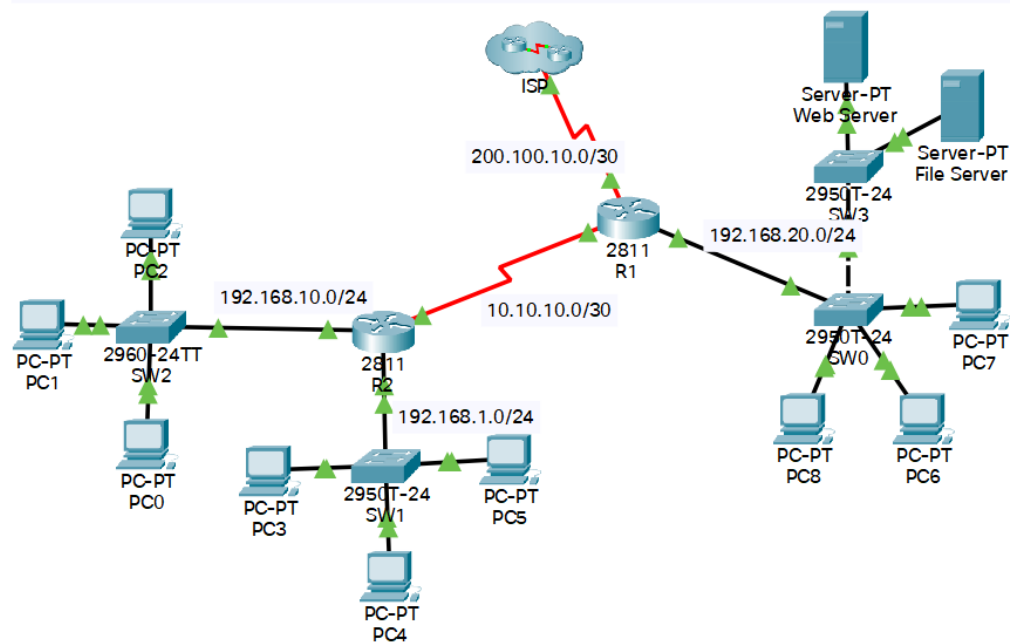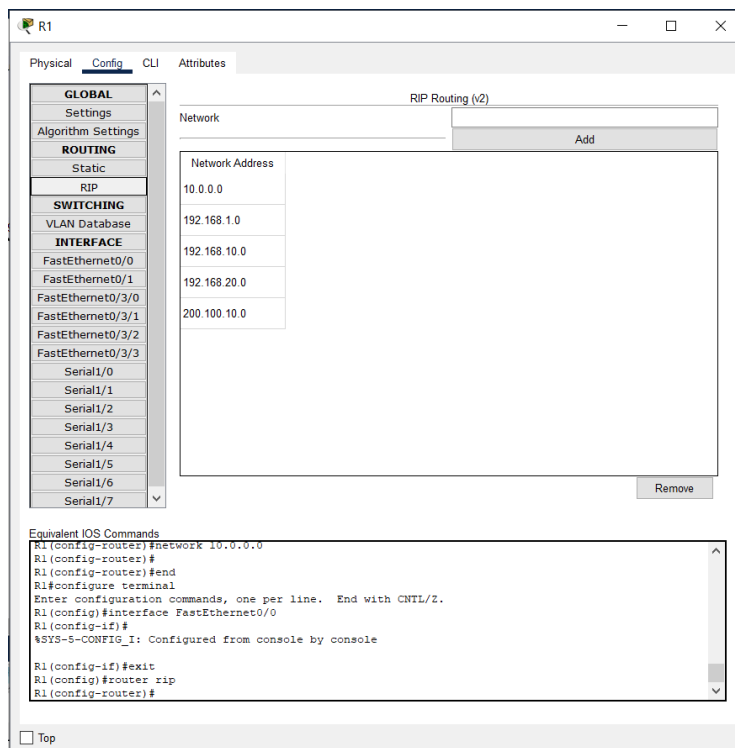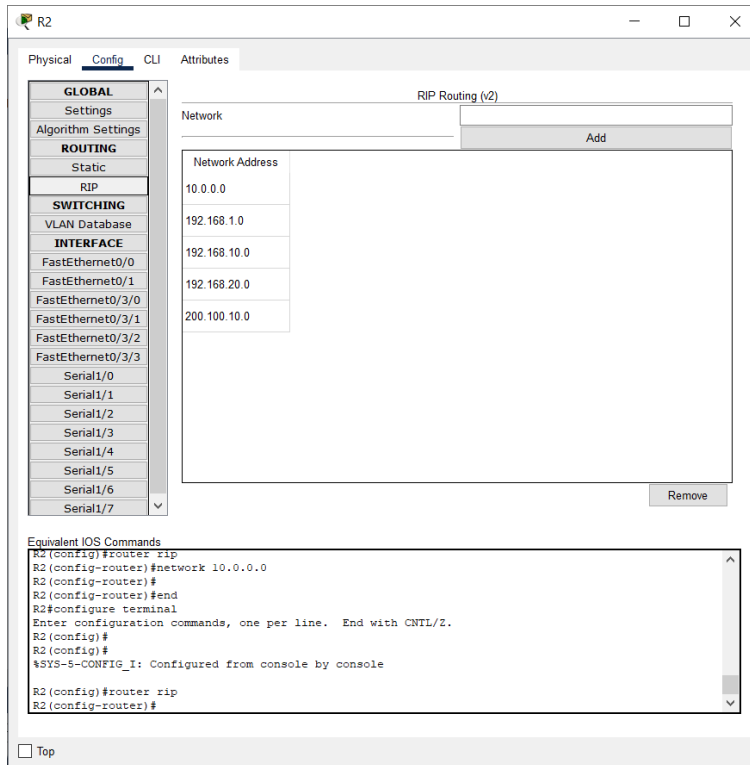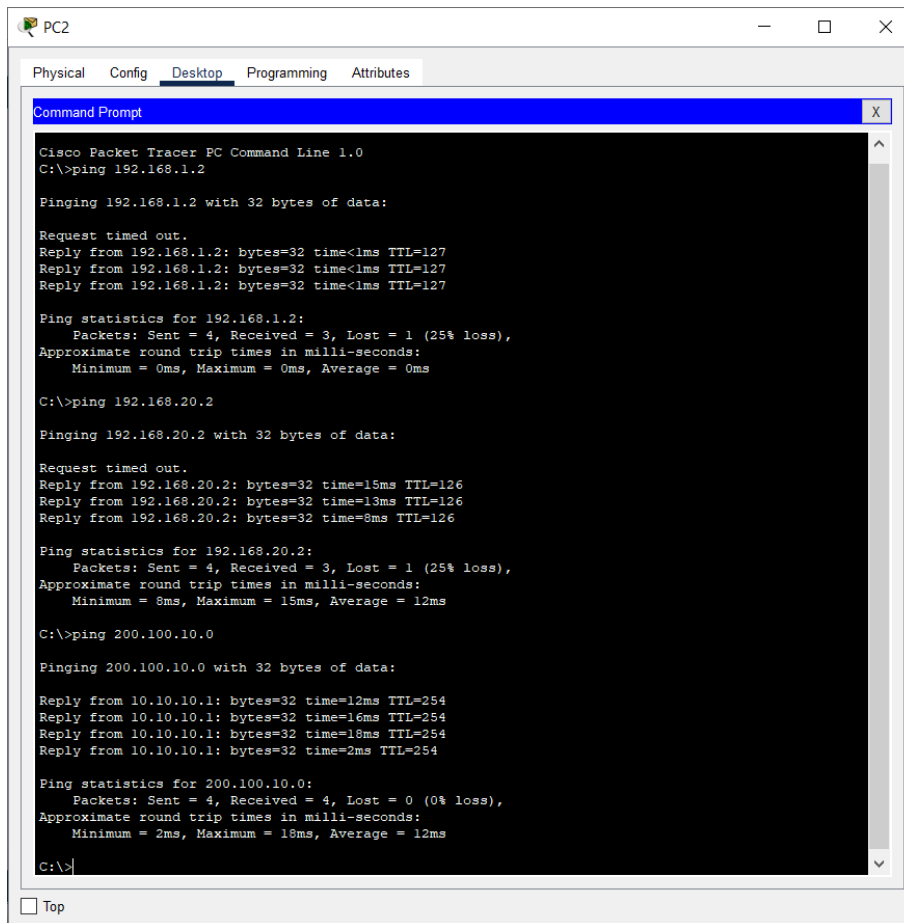
☐ Top
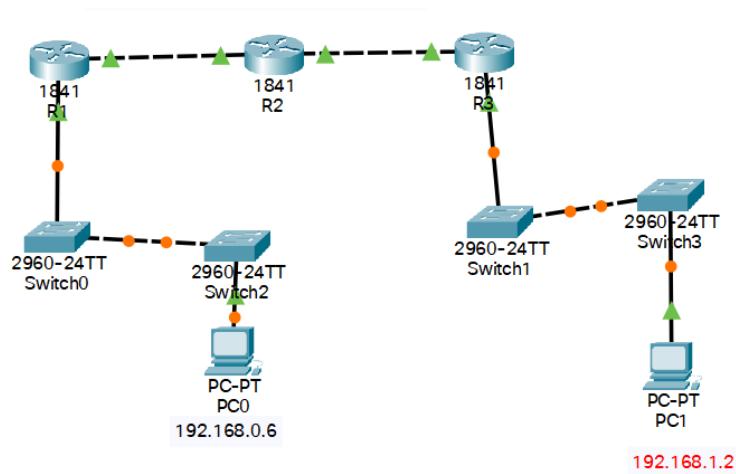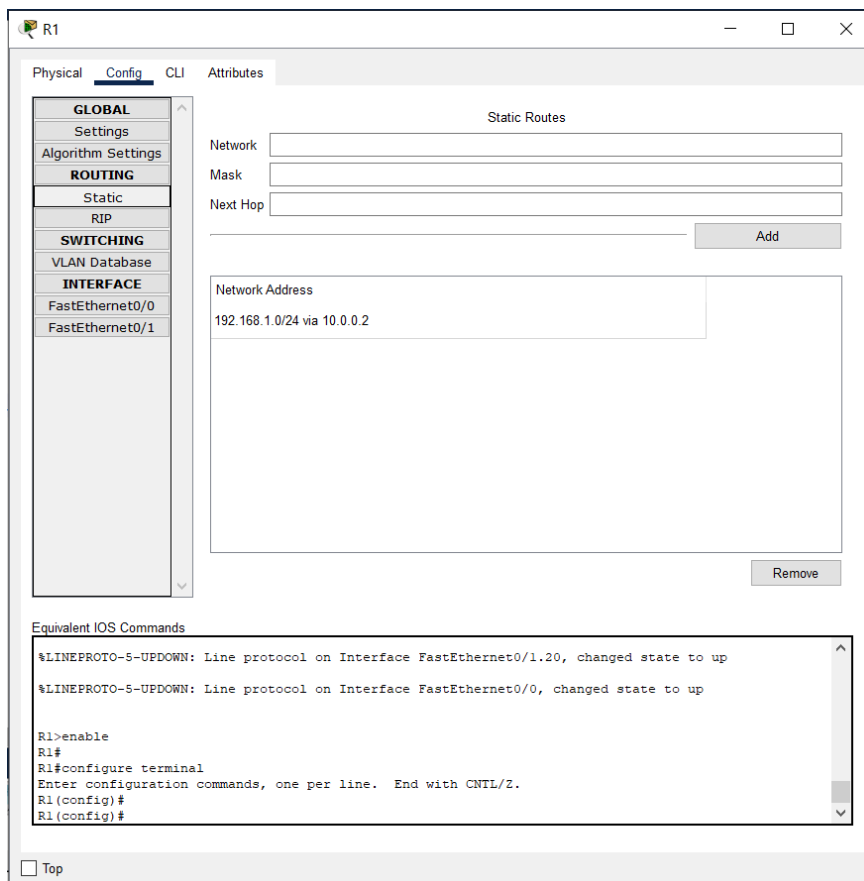
Soal 3

Permasalahan yang harus di selesaikan: PC0 tidak bisa ping ke PC 1!

Jawaban:

Di sini saya akan menyelesaikan permasalahannya menggunakan Static Routing.

Konfigurasi Router:

R2

Physical | Config | CLI | Attributes

GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
SWITCHING
VLAN Database
INTERFACE
FastEthernet0/0
FastEthernet0/1

Static Routes

Network
Mask
Next Hop

Add

Network Address

192.168.1.0/24 via 172.16.0.2

192.168.0.0/24 via 10.0.0.1

Remove

Equivalent IOS Commands
```
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up


R2>enable
R2#
R2#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
R2(config)#
R2(config)#
00:00:40: %OSPF-5-ADJCHG: Process 1, Nbr 3.3.3.3 on FastEthernet0/0 from LOADING to FULL, Loading
Done
```

☐ Top

R3

Physical | Config | CLI | Attributes

GLOBAL
Settings
Algorithm Settings
ROUTING
Static
RIP
SWITCHING
VLAN Database
INTERFACE
FastEthernet0/0
FastEthernet0/1

Static Routes

Network
Mask
Next Hop

Add

Network Address

192.168.0.0/24 via 172.16.0.1

Remove

Equivalent IOS Commands
```
R3#
R3#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
R3(config)#router rip
R3(config-router)#
R3(config-router)#end
R3#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
R3(config)#
R3(config)#
%SYS-5-CONFIG_I: Configured from console by console
```
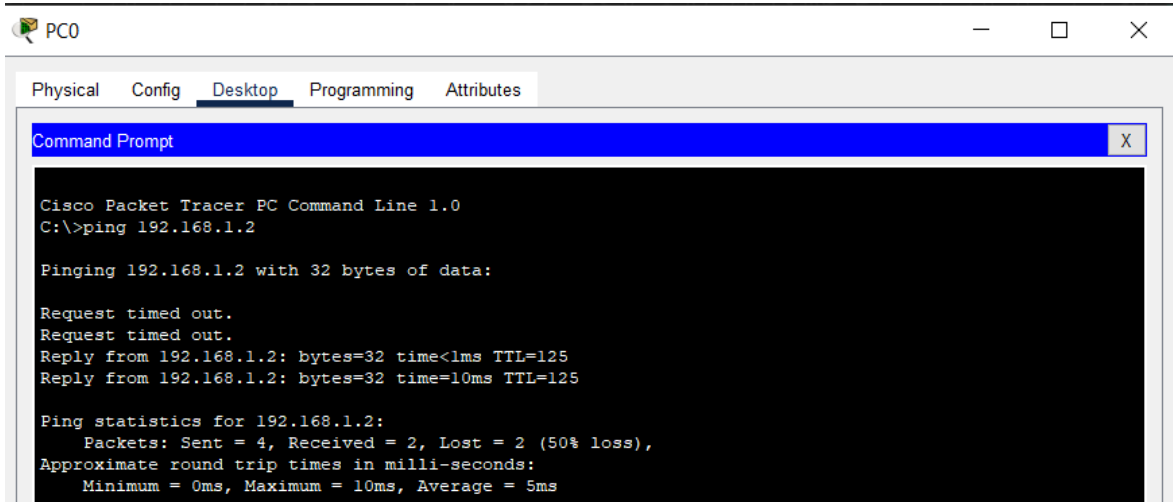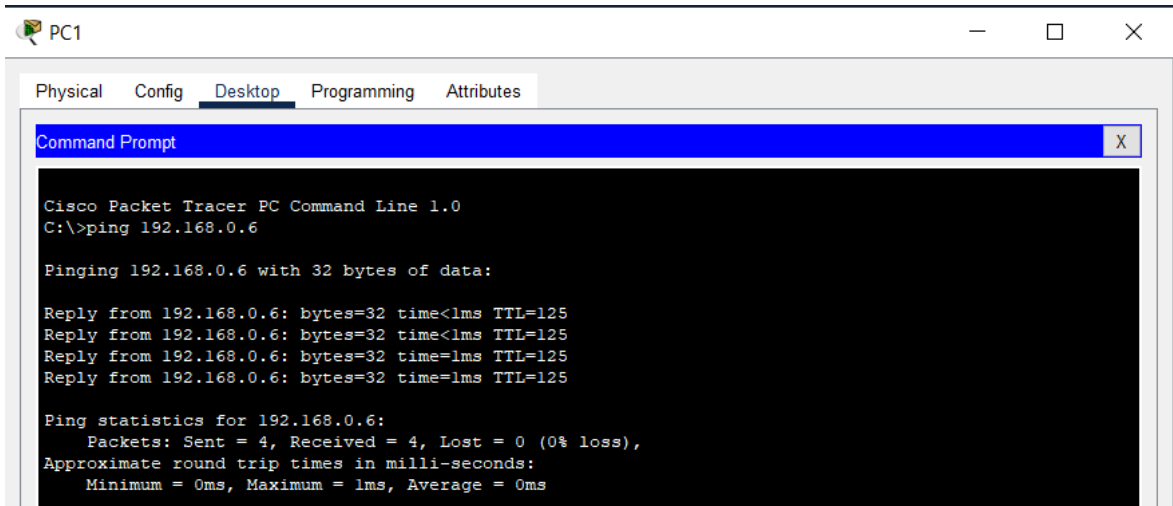
☐ Top

Ping antar device:

PC0 — Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.1.2

Pinging 192.168.1.2 with 32 bytes of data:

Request timed out.
Request timed out.
Reply from 192.168.1.2: bytes=32 time<1ms TTL=125
Reply from 192.168.1.2: bytes=32 time=10ms TTL=125

Ping statistics for 192.168.1.2:
    Packets: Sent = 4, Received = 2, Lost = 2 (50% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 10ms, Average = 5ms
```


PC1 — Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.0.6

Pinging 192.168.0.6 with 32 bytes of data:

Reply from 192.168.0.6: bytes=32 time<1ms TTL=125
Reply from 192.168.0.6: bytes=32 time<1ms TTL=125
Reply from 192.168.0.6: bytes=32 time=1ms TTL=125
Reply from 192.168.0.6: bytes=32 time=1ms TTL=125

Ping statistics for 192.168.0.6:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms
```