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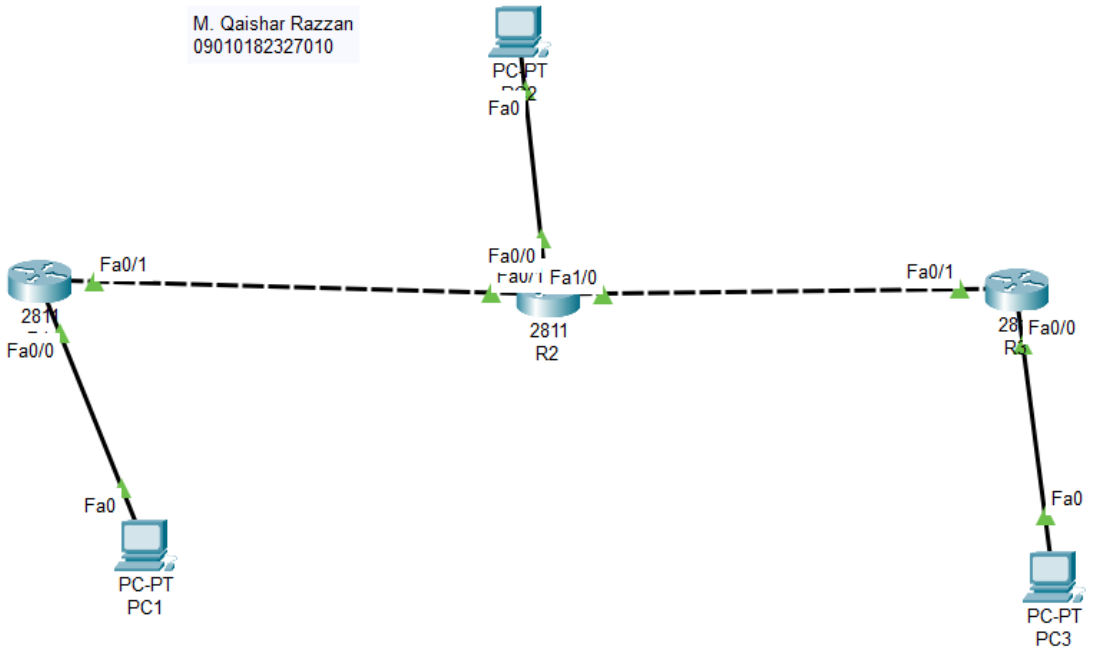
RIP Dan EIGRP Praktikum Jaringan Komputer

- Routing RIP



1. Buatlah IP Address di PC

No	Nama Device	Alamat	Netmask	Gateway
1	PC1	192.168.1.10	255.255.255.0	192.168.1.1
2	PC2	192.168.2.10	255.255.255.0	192.168.2.1
3	PC3	192.168.3.10	255.255.255.0	192.168.3.1

Router 1

```
R1_09010182327010>show ip route rip
     192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
R    192.168.2.0/24 [120/1] via 192.168.100.2, 00:00:28, FastEthernet0/1
R    192.168.3.0/24 [120/2] via 192.168.100.2, 00:00:28, FastEthernet0/1
     192.168.200.0/30 is subnetted, 1 subnets
R       192.168.200.0 [120/1] via 192.168.100.2, 00:00:28, FastEthernet0/1
```

Router 2

```
R2_09010182327010>show ip route rip
R    192.168.1.0/24 [120/1] via 192.168.100.1, 00:00:11, FastEthernet0/1
     192.168.2.0/24 is variably subnetted, 2 subnets, 2 masks
R    192.168.3.0/24 [120/1] via 192.168.200.2, 00:00:10, FastEthernet1/0
```

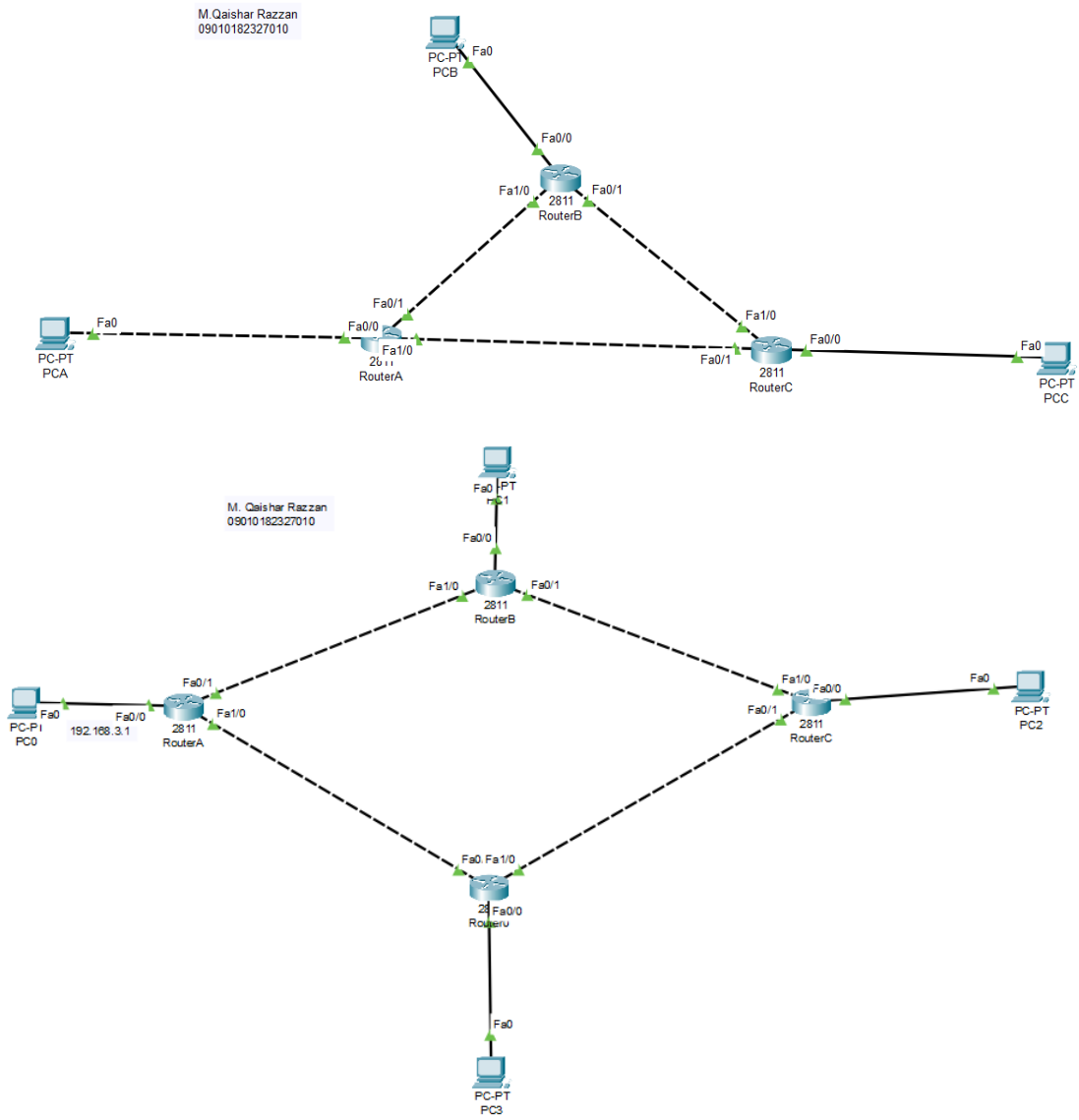
Router 3

```
R3_09010182327010>show ip route rip
R    192.168.1.0/24 [120/2] via 192.168.200.1, 00:00:11, FastEthernet0/1
R    192.168.2.0/24 [120/1] via 192.168.200.1, 00:00:11, FastEthernet0/1
     192.168.100.0/30 is subnetted, 1 subnets
R       192.168.100.0 [120/1] via 192.168.200.1, 00:00:11, FastEthernet0/1
```

2. Lakukan PING dan Traceroute dari PC1 ke PC2 dan PC3, PC2 ke PC1 dan PC3, serta PC3 ke PC1 dan PC2.

No	Sumber	Tujuan	Hasil	
			Ya	Tidak
1	PC1	PC2	Ya	
		PC3	Ya	
2	PC2	PC1	Ya	
		PC3	Ya	
3	PC3	PC1	Ya	
		PC2	Ya	

- Routing EIGRP



1. Buat Pengalamat Di PC

No	Nama Device	Alamat	Netmask	Gateway
1	PCA	192.168.1.10	255.255.255.0	192.168.1.1
2	PCB	192.168.2.10	255.255.255.0	192.168.2.1
3	PCC	192.168.3.10	255.255.255.0	192.168.3.1

Router 1

```
R1_09010182327010#show ip route eigrp
     100.0.0.0/8 is variably subnetted, 6 subnets, 2 masks
D       100.100.100.8/30 [90/30720] via 100.100.100.6, 00:04:54, FastEthernet0/1
D       100.100.100.12/30 [90/30720] via 100.100.100.2, 00:04:54, FastEthernet1/0
     192.168.1.0/24 is variably subnetted, 2 subnets, 2 masks
D    192.168.2.0/24 [90/30720] via 100.100.100.6, 00:04:54, FastEthernet0/1
D    192.168.3.0/24 [90/33280] via 100.100.100.2, 00:04:54, FastEthernet1/0
                    [90/33280] via 100.100.100.6, 00:04:53, FastEthernet0/1
D    192.168.4.0/24 [90/30720] via 100.100.100.2, 00:04:54, FastEthernet1/0
```

Router 2

```
R2_09010182327010#show ip route eigrp
     100.0.0.0/8 is variably subnetted, 6 subnets, 2 masks
D       100.100.100.0/30 [90/30720] via 100.100.100.5, 00:05:46, FastEthernet1/0
D       100.100.100.12/30 [90/30720] via 100.100.100.10, 00:05:46, FastEthernet0/1
D    192.168.1.0/24 [90/30720] via 100.100.100.5, 00:05:46, FastEthernet1/0
     192.168.2.0/24 is variably subnetted, 2 subnets, 2 masks
D    192.168.3.0/24 [90/30720] via 100.100.100.10, 00:05:46, FastEthernet0/1
D    192.168.4.0/24 [90/33280] via 100.100.100.10, 00:05:46, FastEthernet0/1
                    [90/33280] via 100.100.100.5, 00:05:45, FastEthernet1/0
```

Router 3

```
R3_09010182327010#show ip route eigrp
     100.0.0.0/8 is variably subnetted, 6 subnets, 2 masks
D       100.100.100.0/30 [90/30720] via 100.100.100.14, 00:07:30, FastEthernet0/1
D       100.100.100.4/30 [90/30720] via 100.100.100.9, 00:07:30, FastEthernet1/0
D    192.168.1.0/24 [90/33280] via 100.100.100.14, 00:07:30, FastEthernet0/1
                    [90/33280] via 100.100.100.9, 00:07:30, FastEthernet1/0
D    192.168.2.0/24 [90/30720] via 100.100.100.9, 00:07:30, FastEthernet1/0
     192.168.3.0/24 is variably subnetted, 2 subnets, 2 masks
D    192.168.4.0/24 [90/30720] via 100.100.100.14, 00:07:30, FastEthernet0/1
```

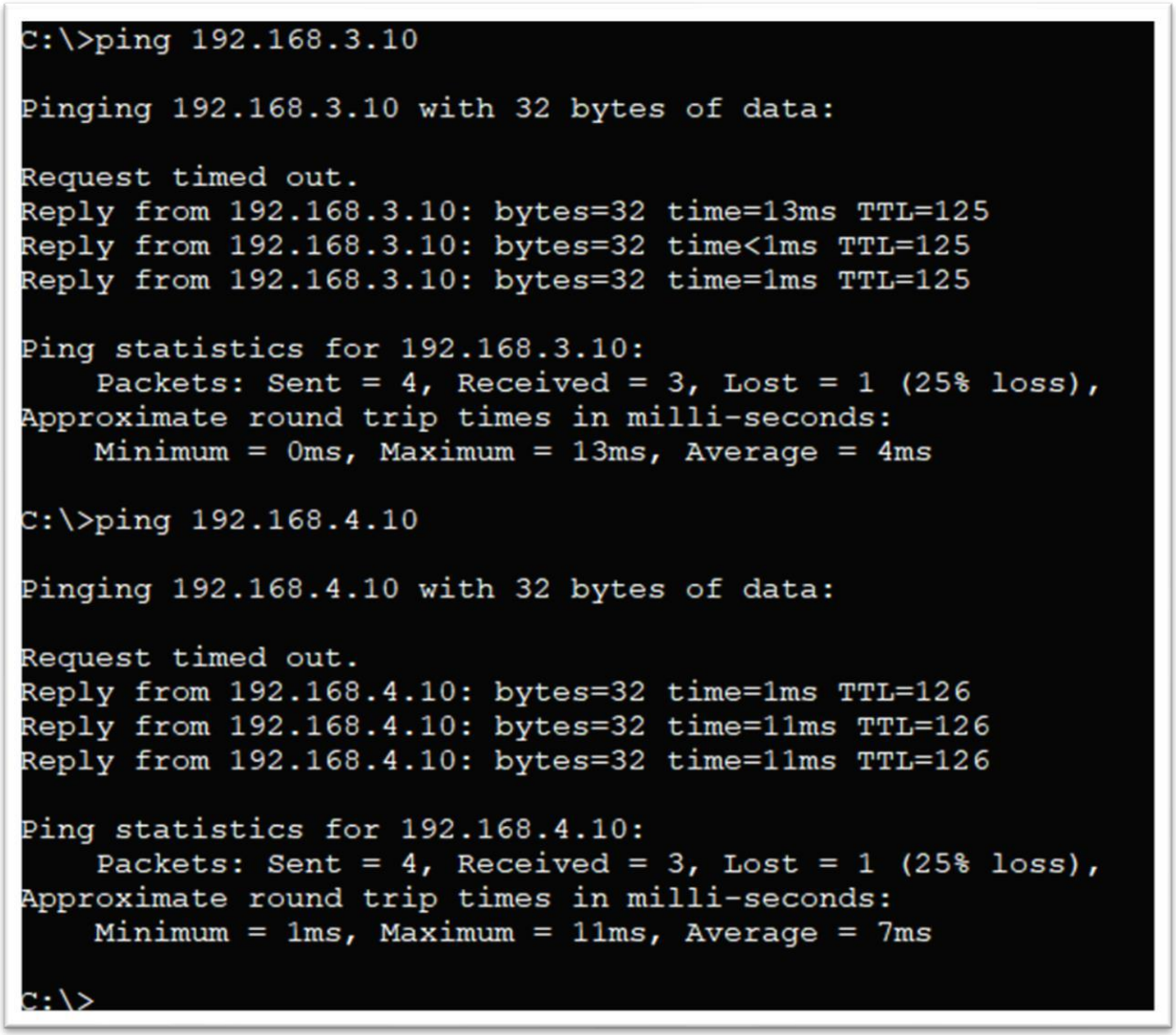
2. Lakukan PING dan Traceroute dari PCA ke PCB dan PCC, PCB ke PCA dan PCC, serta PCC ke PCA dan PCB.

No	Sumber	Tujuan	Hasil	
			Ya	Tidak
1	PCA	PCB	Ya	
		PCC	Ya	
2	PCB	PCA	Ya	
		PCC	Ya	

3	PCC	PCA	Ya	
		PCB	Ya	

Tabel Hasil Ping

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.1.10

Pinging 192.168.1.10 with 32 bytes of data:

Reply from 192.168.1.10: bytes=32 time=23ms TTL=128
Reply from 192.168.1.10: bytes=32 time=36ms TTL=128
Reply from 192.168.1.10: bytes=32 time=19ms TTL=128
Reply from 192.168.1.10: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.1.10:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 36ms, Average = 19ms

C:\>ping 192.168.2.10

Pinging 192.168.2.10 with 32 bytes of data:

Request timed out.
Reply from 192.168.2.10: bytes=32 time=2ms TTL=126
Reply from 192.168.2.10: bytes=32 time=11ms TTL=126
Reply from 192.168.2.10: bytes=32 time<1ms TTL=126

Ping statistics for 192.168.2.10:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 11ms, Average = 4ms
```



Laporan ini menyajikan hasil konfigurasi dan uji konektivitas jaringan menggunakan protokol RIP dan EIGRP, serta memverifikasi koneksi antar perangkat dalam jaringan tersebut.

Berdasarkan analisis dari laporan ini, terdapat beberapa poin penting:

- **Keberhasilan Routing:** Kedua protokol, baik RIP maupun EIGRP, berhasil membentuk tabel routing yang memastikan konektivitas antar perangkat dalam jaringan.

- **Keunggulan EIGRP dibanding RIP**: Meskipun RIP berhasil diterapkan dalam jaringan ini, EIGRP menunjukkan keunggulan dalam efisiensi dan lebih cocok untuk jaringan berskala besar.

- **Penggunaan di Masa Mendatang**: Untuk jaringan yang lebih kompleks dan dinamis, EIGRP atau protokol routing lainnya yang lebih canggih lebih efisien daripada RIP.

Secara keseluruhan, laporan ini mengindikasikan bahwa EIGRP memberikan performa yang lebih unggul dalam lingkungan jaringan yang membutuhkan efisiensi dan keandalan tinggi.