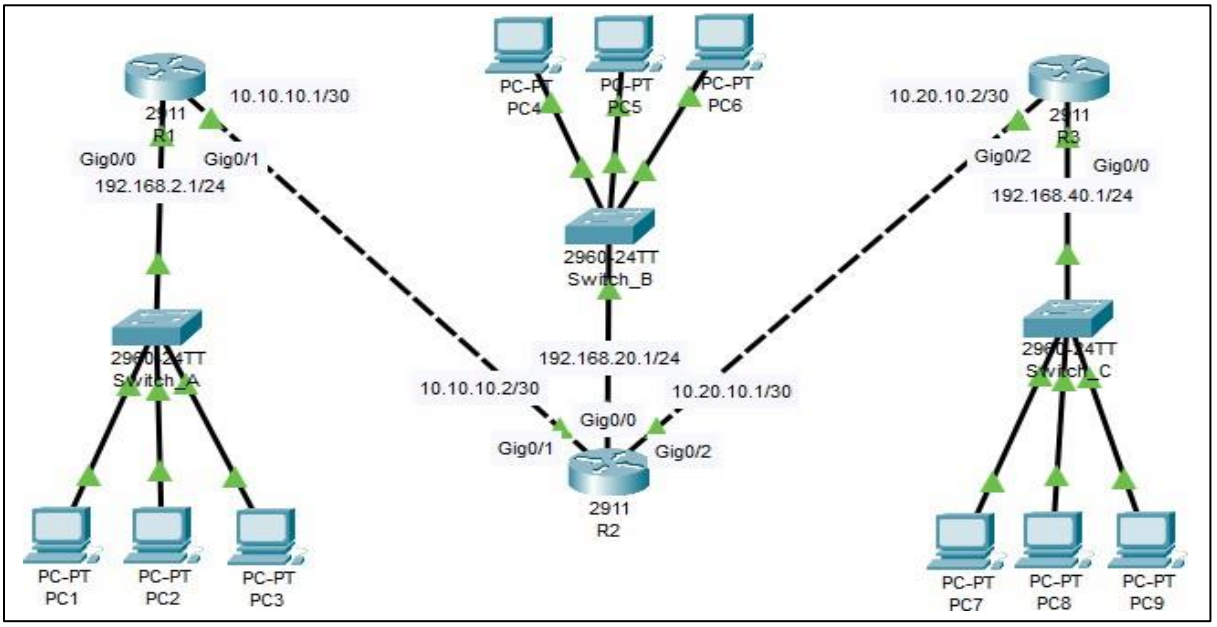
NAMA : AYU FITRIYANI
NIM : 09010282327024
KELAS : MI3A
MK : PRATIKUM JARINGAN KOMPUTER



1. Buat topologi seperti yang ditunjukkan pada gambar di atas
2. Berikut rentang IP Address pada router

No	Nama Group	Range Alamat	Netmask
1	R1	192.168.2.2 – 192.168.2.254	255.255.255.0
2	R2	192.168.20.2 – 192.168.20.254	255.255.255.0
3	R3	192.168.40.2 – 192.168.40.254	255.255.255.0

3. Konfigurasi setiap Router dengan konfigurasi inisial dan pengalamatan

Router 1
Memberi nama R1 dan Membuat Banner

Setting IP Address

Simpan konfigurasi ke NVRAM

```
R1#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
```

Router 2

Memberi nama R2 dan Membuat Banner

```
Router>enable
Router#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#Hostname R2
R2(config)#banner motd #Selamat Datang di R2 I#
```

Setting IP Address

```
R2#configure terminal
R2(config)#interface gigabitEthernet 0/0
R2(config-if)#ip address 192.168.20.1 255.255.255.0
R2(config-if)#no shutdown
R2(config-if)#exit

R2(config)#interface gigabitEthernet 0/1
R2(config-if)#ip address 10.10.10.2 255.255.255.252
R2(config-if)#no shutdown
R2(config-if)#exit

R2(config)#interface gigabitEthernet 0/2
R2(config-if)#ip address 10.20.10.1 255.255.255.252
R2(config-if)#no shutdown
R2(config-if)#exit
```

Simpan konfigurasi ke NVRAM

```
R2#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
```

Router 3

Memberi nama R3 dan Membuat Banner

```
Router>enable
Router#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#Hostname R3
R3(config)#banner motd #Selamat Datang di R3 I#
```

Setting IP Address

```
R3#configure terminal
R3(config)#interface gigabitEthernet [redacted]
R3(config-if)#[redacted]
R3(config-if)#
R3(config-if)#

R3(config)#interface gigabitEthernet [redacted]
R3(config-if)#[redacted]
R3(config-if)#
R3(config-if)#
```

Simpan konfigurasi ke NVRAM

```
R3#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
```

4. Konfigurasi Static Routing disetiap Router

Setelah semua perangkat dikonfigurasi, tabel perutean harus ditambahkan ke setiap router. Tabel perutean ini mengacu pada jaringan yang tidak terkoneksi atau terhubung secara langsung ke router. Seperti yang sudah dijelaskan, administrator membuat tabel perutean statis, jadi jika konfigurasi jaringan berubah atau ada lebih banyak router di jaringan, tabel harus diperbarui.

Router 1

```
R1(config)#ip route 192.168.20.0 255.255.255.0 10.10.10.2
R1(config)#ip route 10.20.10.0 255.255.255.252 10.10.10.2
R1(config)#ip route 192.168.40.0 [redacted]
```

Router 2

```
R2(config)#ip route 192.168.2.0 255.255.255.0 10.10.10.1
R2(config)#ip route 192.168.40.0 255.255.255.0 10.20.10.2
```

Router 3

```
R3(config)#ip route [redacted]
R3(config)#ip route [redacted]
R3(config)#ip route [redacted]
```

Melihat Tabel Routing R1

R1#show ip route
Tulis hasil yang anda dapat

```
09010282327024R1#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

     10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       10.10.10.0/30 is directly connected, GigabitEthernet0/1
L       10.10.10.1/32 is directly connected, GigabitEthernet0/1
     192.168.2.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.2.0/24 is directly connected, GigabitEthernet0/0
L       192.168.2.1/32 is directly connected, GigabitEthernet0/0
```

Melihat Tabel Routing R2

R2#show ip route
Tulis hasil yang anda dapat

```
selamat datang di R2

09010282327024R2>enable
09010282327024R2#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

     10.0.0.0/8 is variably subnetted, 2 subnets, 2 masks
C       10.10.10.0/30 is directly connected, GigabitEthernet0/1
L       10.10.10.2/32 is directly connected, GigabitEthernet0/1
     192.168.20.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.20.0/24 is directly connected, GigabitEthernet0/0
L       192.168.20.1/32 is directly connected, GigabitEthernet0/0
```

Melihat Tabel Routing R3

R3#show ip route

Tulis hasil yang anda dapat

```
09010282327024R3#copy running-config startup-config
Destination filename [startup-config]?
Building configuration...
[OK]
09010282327024R3#show ip route
Codes: L - local, C - connected, S - static, R - RIP, M - mobile, B - BGP
       D - EIGRP, EX - EIGRP external, O - OSPF, IA - OSPF inter area
       N1 - OSPF NSSA external type 1, N2 - OSPF NSSA external type 2
       E1 - OSPF external type 1, E2 - OSPF external type 2, E - EGP
       i - IS-IS, L1 - IS-IS level-1, L2 - IS-IS level-2, ia - IS-IS inter area
       * - candidate default, U - per-user static route, o - ODR
       P - periodic downloaded static route

Gateway of last resort is not set

     192.168.40.0/24 is variably subnetted, 2 subnets, 2 masks
C       192.168.40.0/24 is directly connected, GigabitEthernet0/0
L       192.168.40.1/32 is directly connected, GigabitEthernet0/0
```

Tes Koneksi ICMP (catat hasil yang anda dapatkan)

No	Sumber	Tujuan	Hasil	
			Ya	Tidak
1	PC1	PC2	ya	
		PC3	ya	
		PC4	ya	
		PC5		ya
		PC6		ya
		PC7		ya
		PC8		ya
		PC9	ya	
2	PC4	PC1	ya	
		PC2	ya	
		PC3	ya	
		PC5	ya	
		PC6	ya	
		PC7	ya	
		PC8		ya
		PC9		ya
3	PC7	PC1		ya
		PC2		yayayaya
		PC3	ya	
		PC4	ya	
		PC5	yaya	
		PC7	ya	
		PC8	yaya	
		PC9	ya	

Screenshot hasil Ping pada cmd PC:
PC1 -> PC5
PC1 -> PC7
PC4 -> PC2
PC4 -> PC8
PC7 -> PC3
PC7 -> PC9

LAPORAN HASIL PRAKTIKUM

Nama :
Nim :
Program Studi :

Judul Percobaan :

Hasil Percobaan :

Analisis Percobaan :

Kesimpulan Percobaan :