LAPORAN PRAKTIKUM JARINGAN KOMPUTER
MODUL 3
"SUBNETTING"

Oleh:

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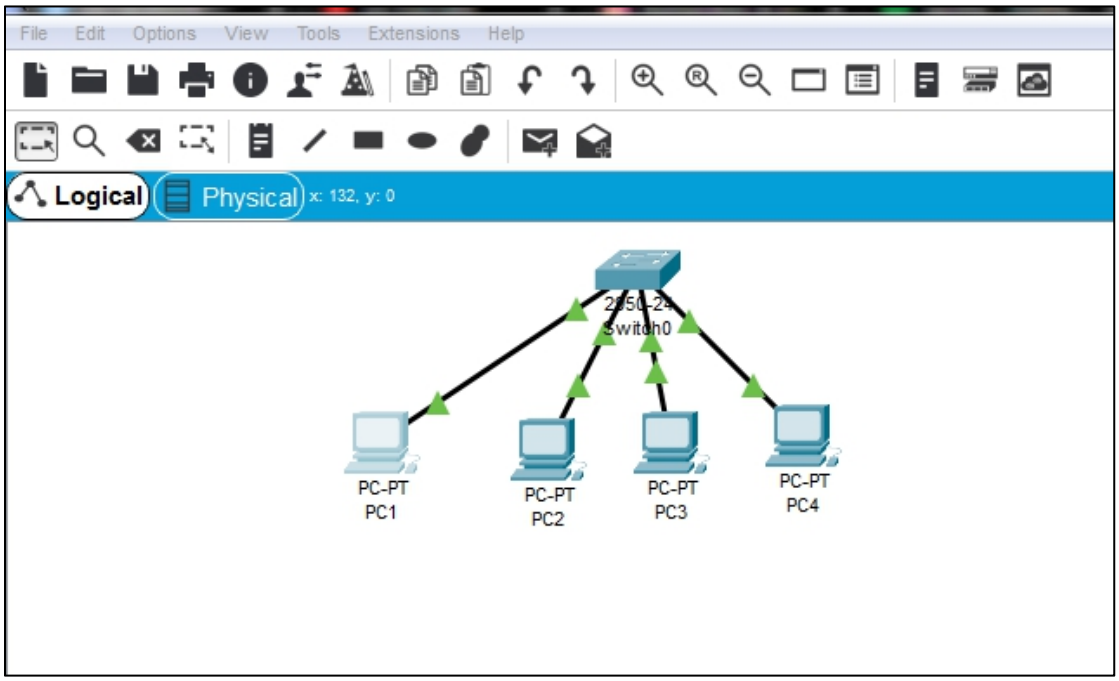
C. Kegiatan PraktikumKegiatan 1.

Desain dan Konfigurasi Subnetting



PC1

IPv4 Address	201.222.5.1
Subnet Mask	255.255.255.248

PC2

IPv4 Address	201.222.5.2
Subnet Mask	255.255.255.248

PC3

IPv4 Address	201.222.5.9
Subnet Mask	255.255.255.248

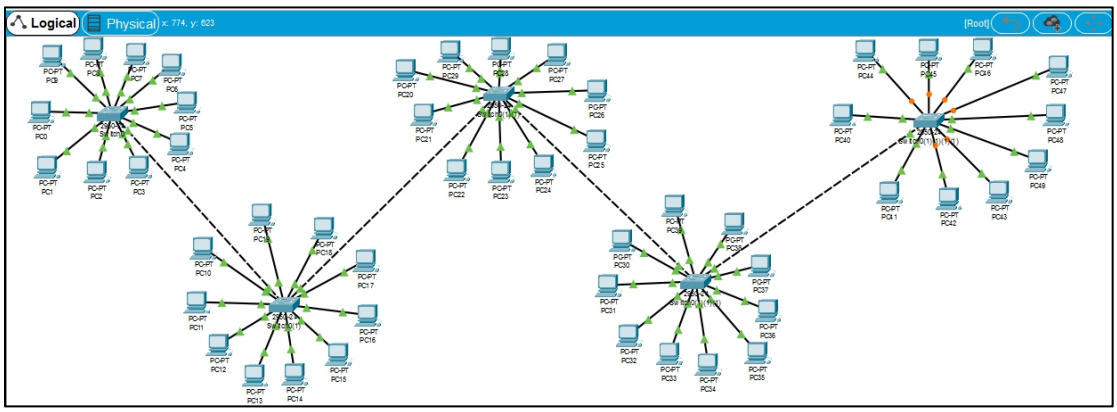
PC4

IPv4 Address	201.222.5.10
Subnet Mask	255.255.255.248

D. Tugas Modul

a. Design jaringan dengan Paket Tracer

b. Gambar rangkaian menggunakan Switch generic dan 10PC



c. Subnet mask yang harus digunakan:

1. Network ID : 202.155.19.0; Subnetmask default : 255.255.255.0 (kelas C)
2. Karena blok 4 adalah 0, konversikan ke biner = 00000000.
3. Karena 5 divisi, maka membutuhkan sebanyak 5 subnet, **rumus 2^x**

   2^3 = 8 Subnet. > 3 bit
4. Ubah nilai bit 0 yang aada di subnetmask default menjadi bit 1 sebanyak 3 bit.

   Subnetmask default kelas C = 255.255.255.0

Desimal	**255**	**255**	**255**	**0**
Biner	**11111111**	**11111111**	**11111111**	**11100000**

224 (desimal)

3 bit

5. Dari hasil konversi terdapat 5 bit 0 yang difungsikan sebagai host, **rumus 2^y - 2**

   2^5 - 2 = 30 host

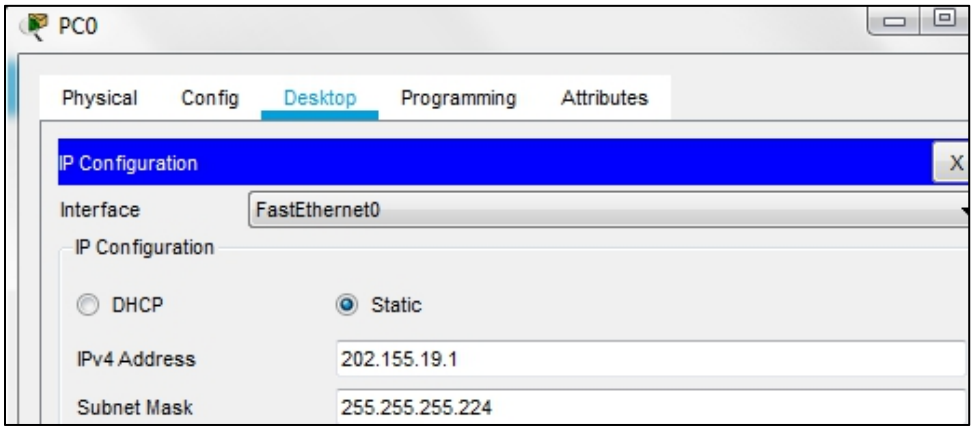
6. Untuk menentukan subnet adreess dengan rumus **256 - 224 = 32**

➢ Sehingga subnet terbentuk selalu keliapatan 32 sebanyak 8 subnet:

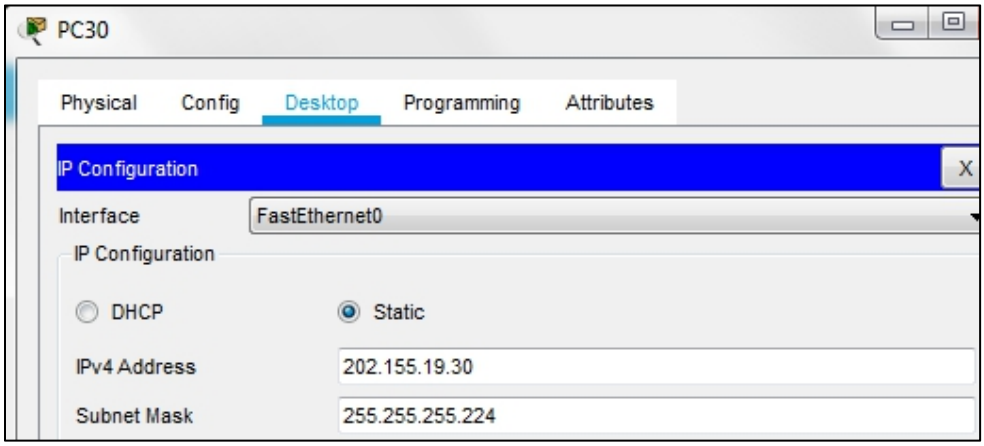
1. 202.155.19.0
2. 202.155.19.32
3. 202.155.19.64
4. 202.155.19.96
5. 202.155.19.128
6. 202.155.19.160
7. 202.155.19.192
8. 202.155.19.224

Subnet Address	Alamat IP Awal	Alamat IP akhir	Broadcast
202.155.19.0	202.155.19.1	202.155.19.30	202.155.19.31
202.155.19.32	202.155.19.33	202.155.19.62	202.155.19.63
202.155.19.64	202.155.19.65	202.155.19.94	202.155.19.95
202.155.19.96	202.155.19.97	202.155.19.126	202.155.19.127
202.155.19.128	202.155.19.129	202.155.19.158	202.155.19.159
…	…	…	…
202.155.19.224	202.155.19.225	202.155.19.254	202.155.19.255

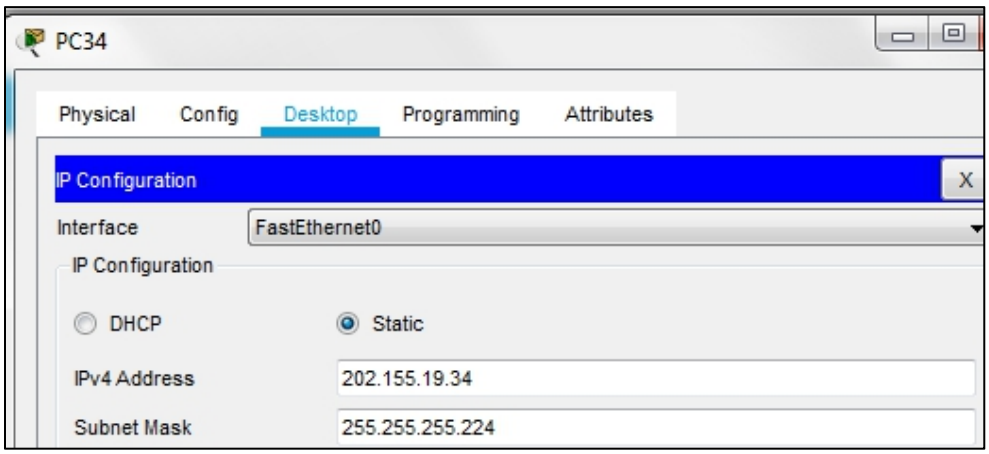
IP PC0



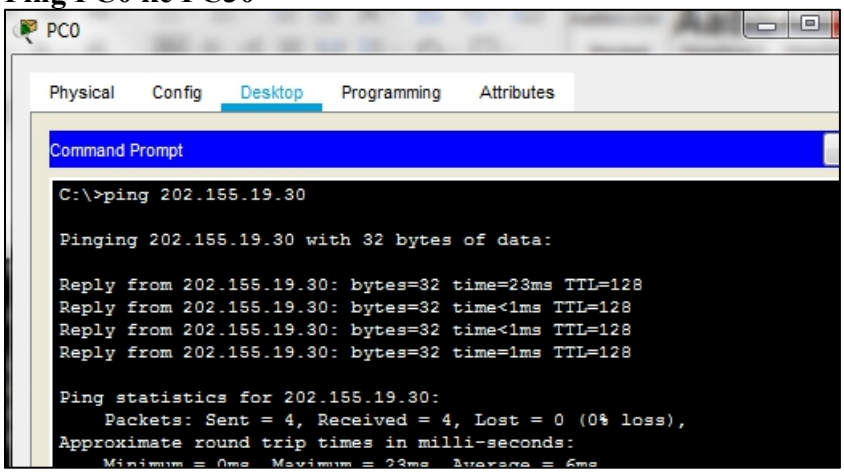
IP PC30



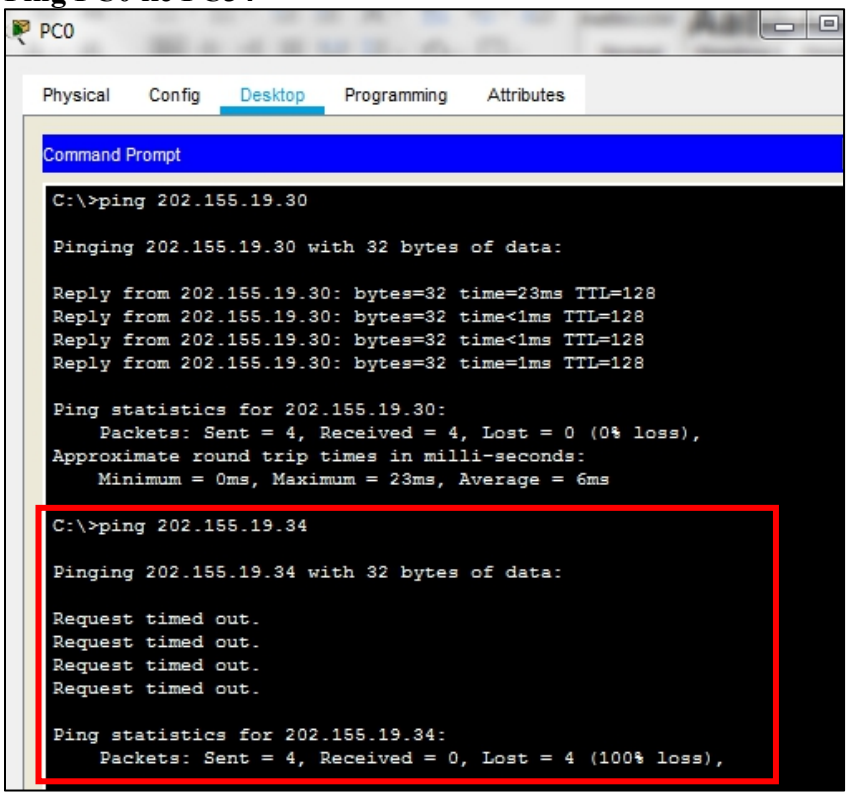
IP PC34



Ping PC0 ke PC30



Ping PC0 ke PC34



Kesimpulan :

>Ketika ping dari **PC0 ke PC30 bisa,** karena jumlah host teridiri dari 30 host,
>sedangkan ketiak ping **PC0 ke PC34 mengalami RTO** karena ip berada pada 34, karena tidak didalam range 1-30