Nama : Bintang Citra Kusumaatmaja

Nim : L200170078

Kelas : B

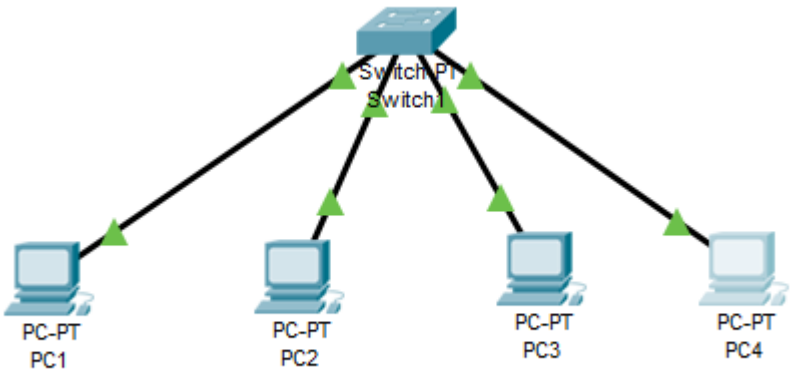
MODUL 3 JARINGAN KOMPUTER

SUBNETING

1. Kegiatan Praktikum I : Desain dan Konfigurasi Subnetting

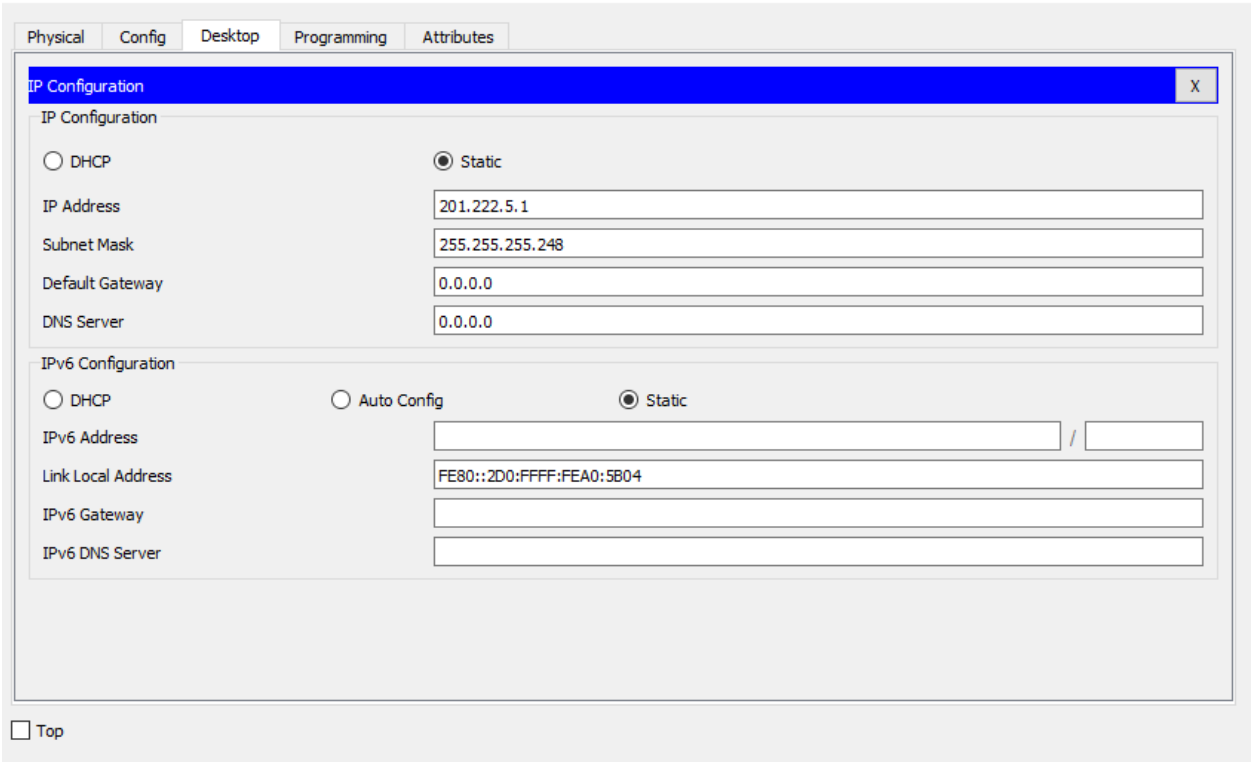
Kegiatan I yang dilakukan pada saat praktikum jaringan komputer adalah pembelajaran subnetting kelas C dan Desain pada Packet Tracer dengan subnetting IP kelas C

Langkah I Membuat Desian pada packet tracer :

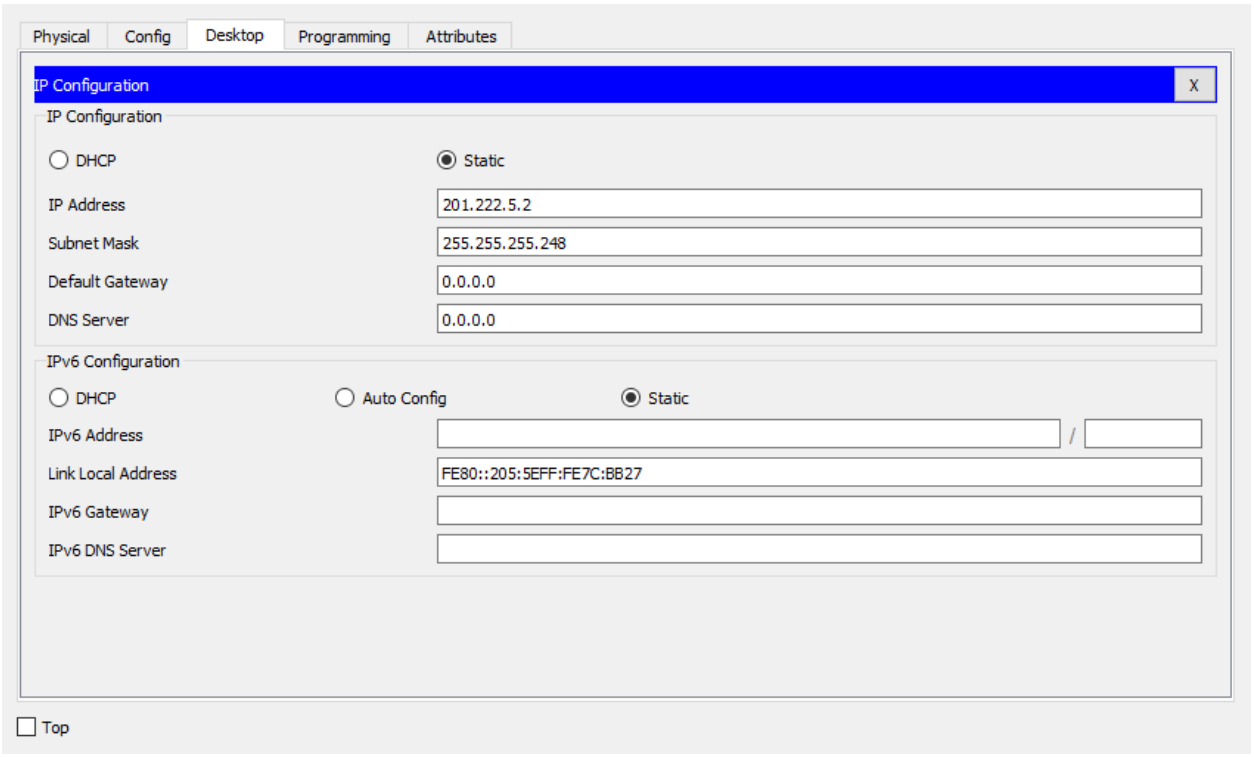


(Gambar Konfigurasi Desain)

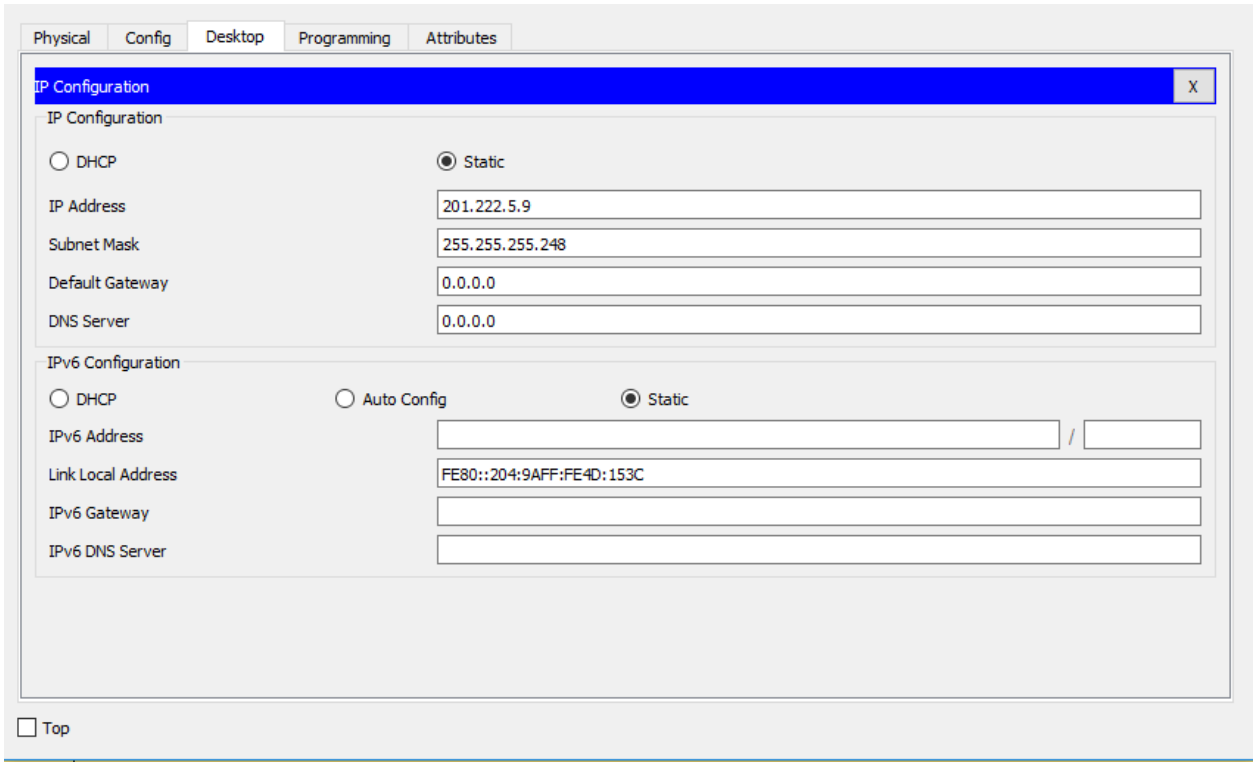
Langkah II Konfigurasi IP pada setiap PC yang terkoneksi pada Switch


Physical
Config
Desktop
Programming
Attributes
IP Configuration
X
IP Configuration
DHCP
Static
IP Address
201.222.5.1
Subnet Mask
255.255.255.248
Default Gateway
0.0.0.0
DNS Server
0.0.0.0
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
Link Local Address
FE80::2D0:FFFF:FEA0:5B04
IPv6 Gateway
IPv6 DNS Server
Top

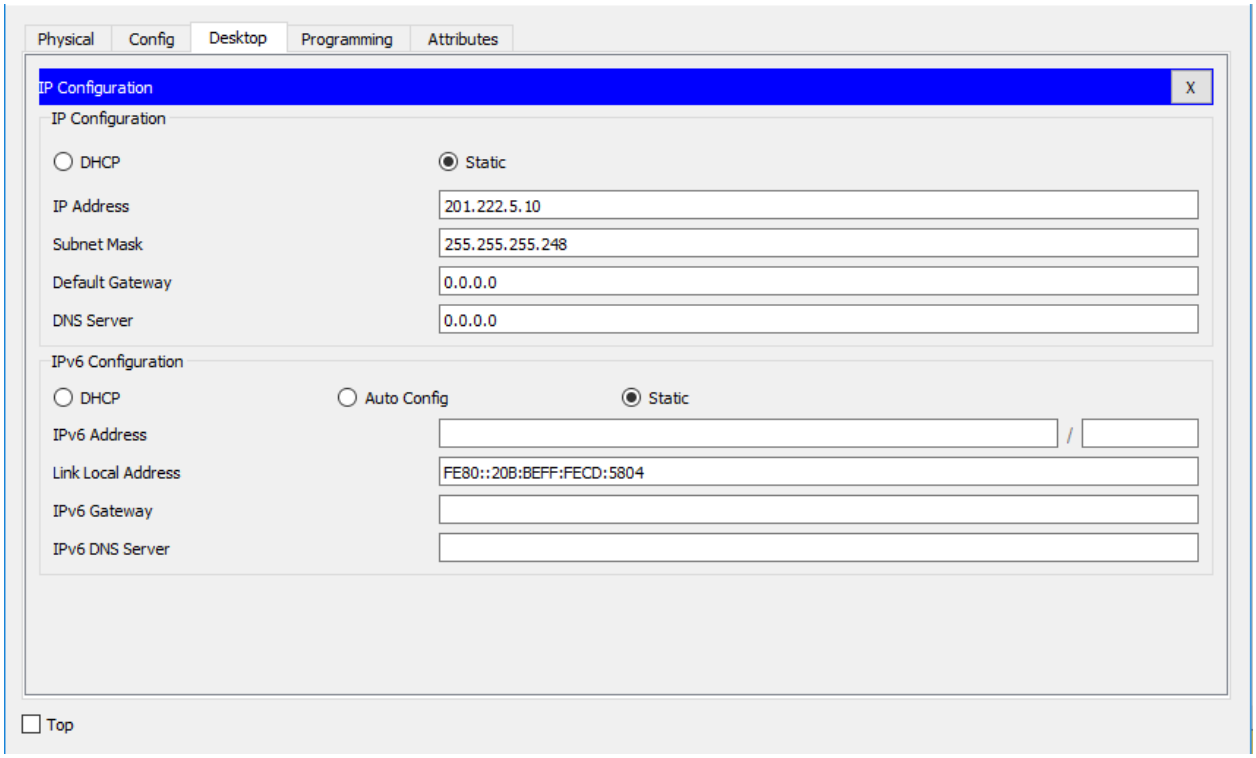
(PC I)


Physical
Config
Desktop
Programming
Attributes
IP Configuration
X
IP Configuration
DHCP
Static
IP Address
201.222.5.2
Subnet Mask
255.255.255.248
Default Gateway
0.0.0.0
DNS Server
0.0.0.0
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
Link Local Address
FE80::205:5EFF:FE7C:BB27
IPv6 Gateway
IPv6 DNS Server
Top

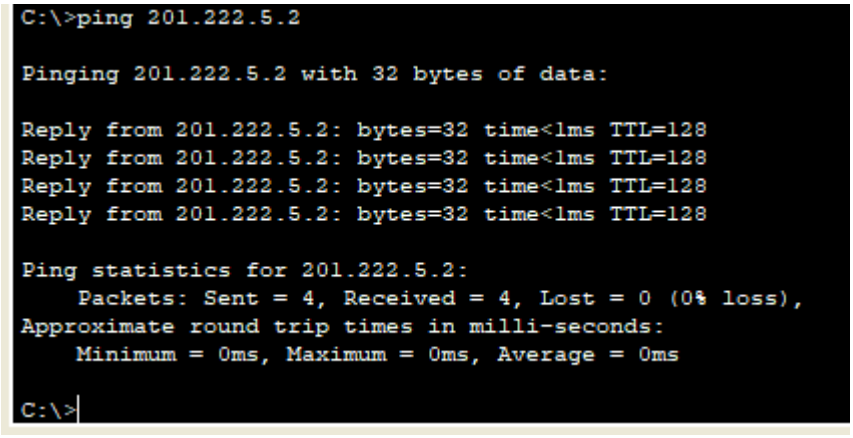
(PC 2)


Physical
Config
Desktop
Programming
Attributes
IP Configuration
X
IP Configuration
DHCP
Static
IP Address
201.222.5.9
Subnet Mask
255.255.255.248
Default Gateway
0.0.0.0
DNS Server
0.0.0.0
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
Link Local Address
FE80::204:9AFF:FE4D:153C
IPv6 Gateway
IPv6 DNS Server
Top

(PC 3)

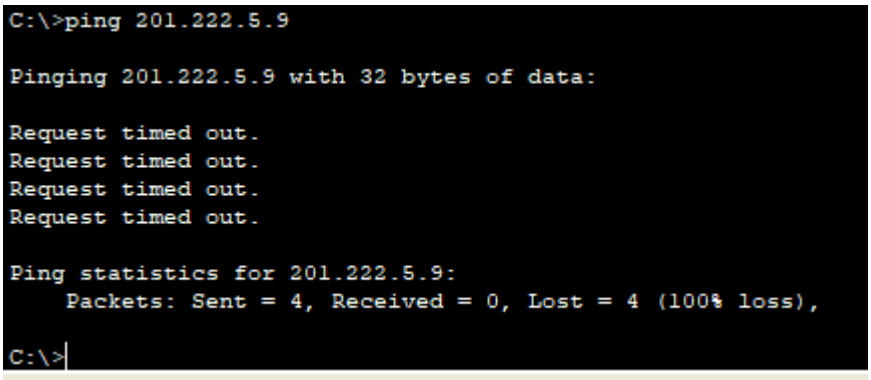

Physical
Config
Desktop
Programming
Attributes
IP Configuration
X
IP Configuration
DHCP
Static
IP Address
201.222.5.10
Subnet Mask
255.255.255.248
Default Gateway
0.0.0.0
DNS Server
0.0.0.0
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
Link Local Address
FE80::20B:BEFF:FECD:5804
IPv6 Gateway
IPv6 DNS Server
Top

Langkah III, Uji coba PING PC 1 ke 2 dan ke 3



(PC 1 ke PC 2 SUKSES)

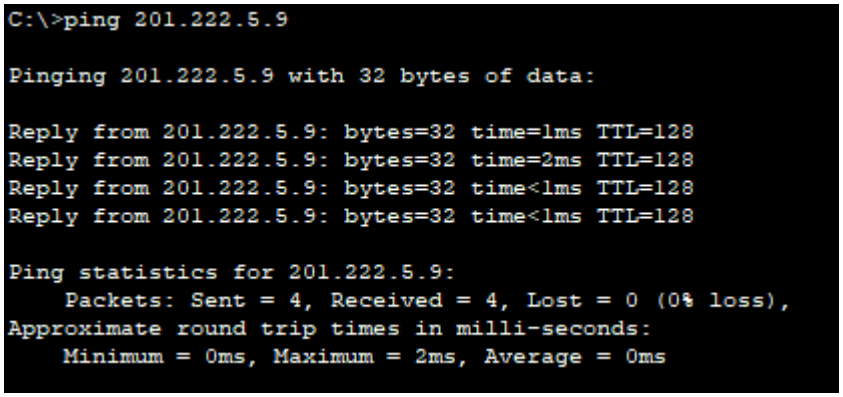
Sukses karena memiliki subnetting yang benar dan pas



(PC 1 ke PC 3 GAGAL)

Gagal Karena memiliki subnetting yang berbeda meskinpun kelasnya sama sama kelas C.

kita coba uji coba PC 4 ke PC 3



(PC 4 ke PC 3 BERHASIL)

BERHASIL karena memiliki subnetting yang sama dan pass

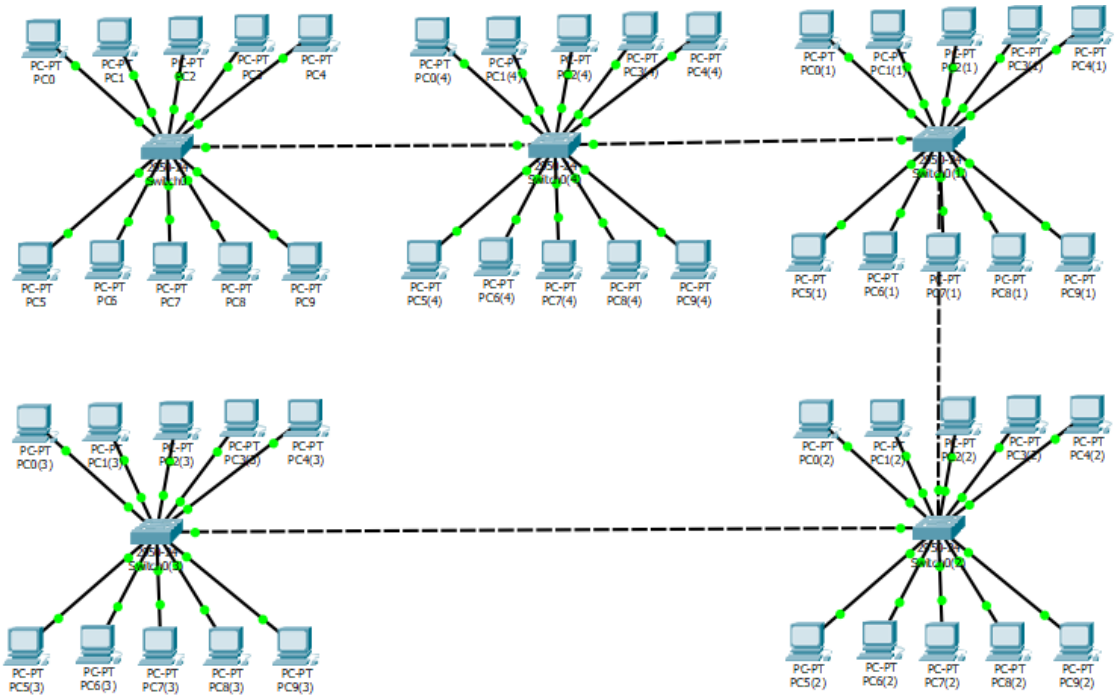
2. **TUGAS KEGIATAN**

SOAL :

- Soal Tertera Pada Modul Praktikum, Modul ke – 3

JAWABAN :

Design Pada Packet Tracer :



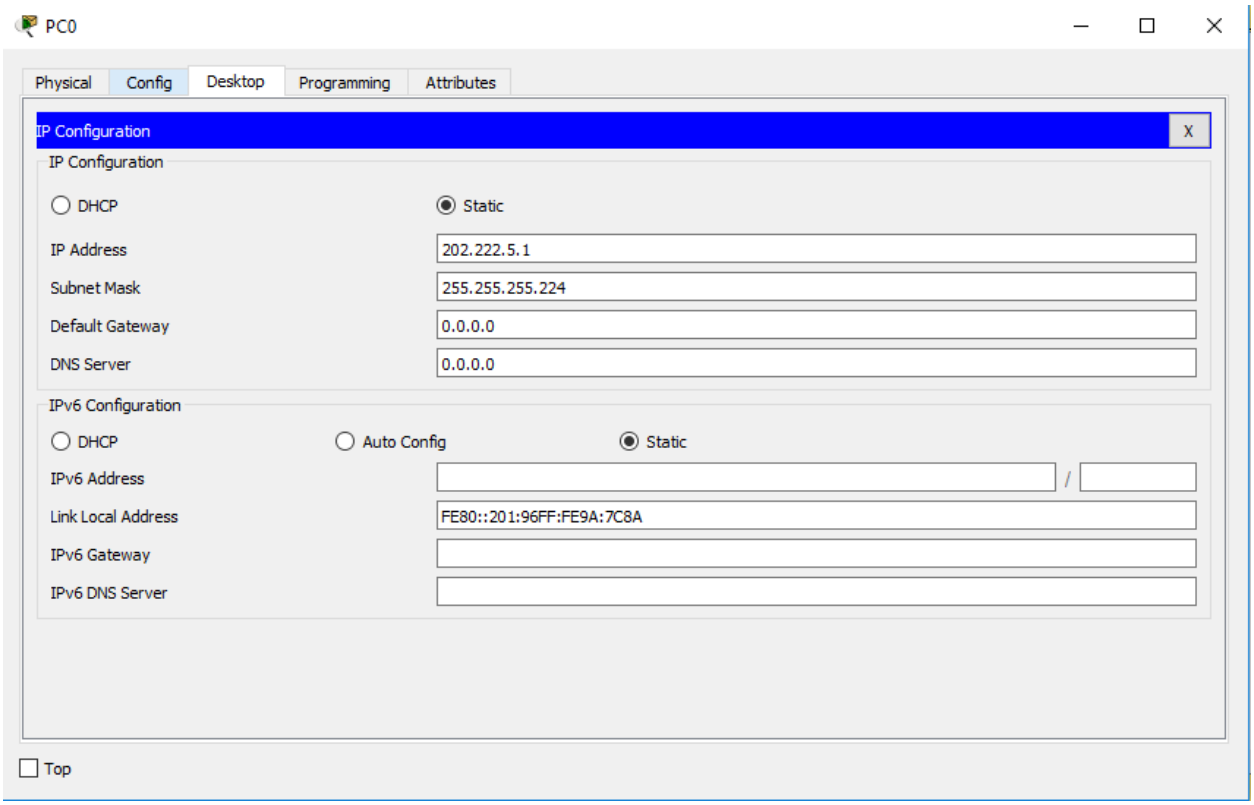
Konfigurasi / Subnetting IP pada Jaringan diatas : Kita Memilih /27 karena terdiri dari 5 divisi dan tiap divisi dapat berisi 25 komputer

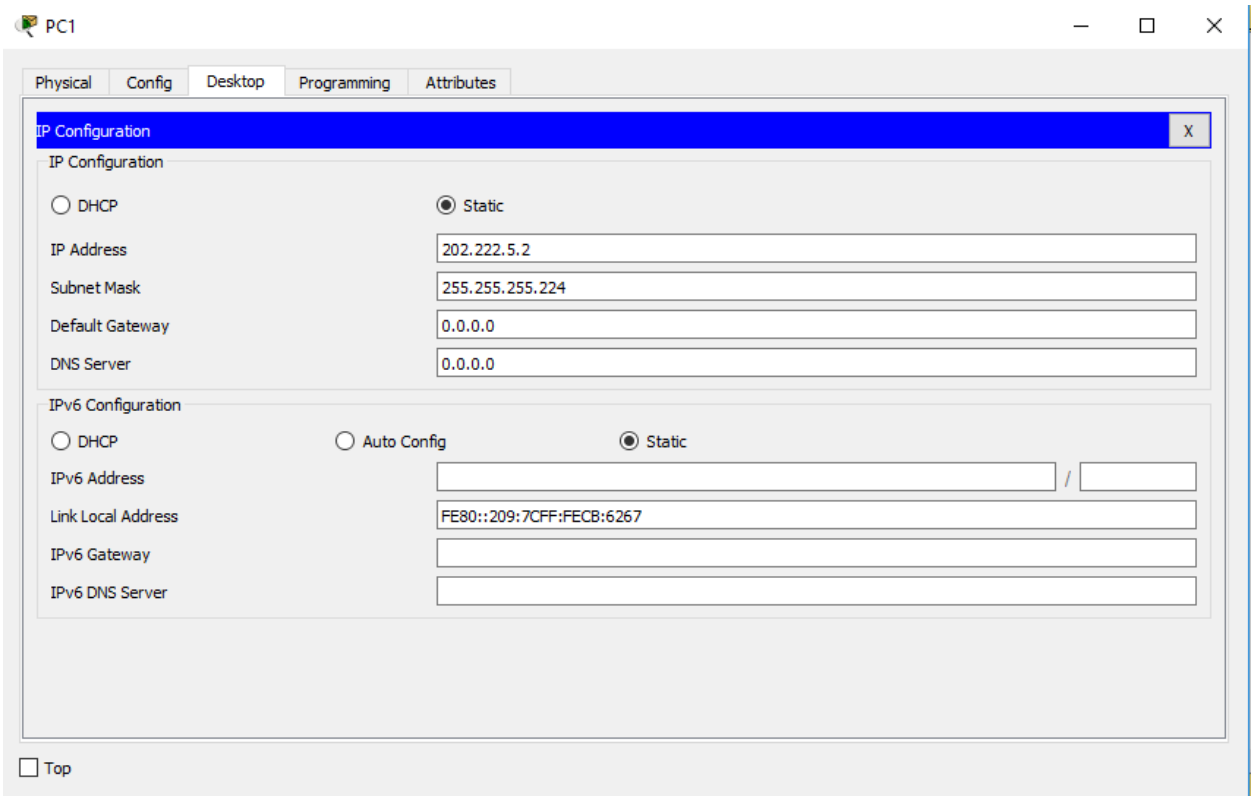
IP	: 202.155.19.0/27
Bentuk Biner	: 11001010.10011011.00010011.00000000
Subnetmask	: 255.255.255.224
Subnetmask Biner	: 11111111.11111111.11111111.11100000
Jumlah Subnet	= 8
Jumlah Host per-Subnet	= 30
Blok Subnet	= 32

Tabel SUBNET :

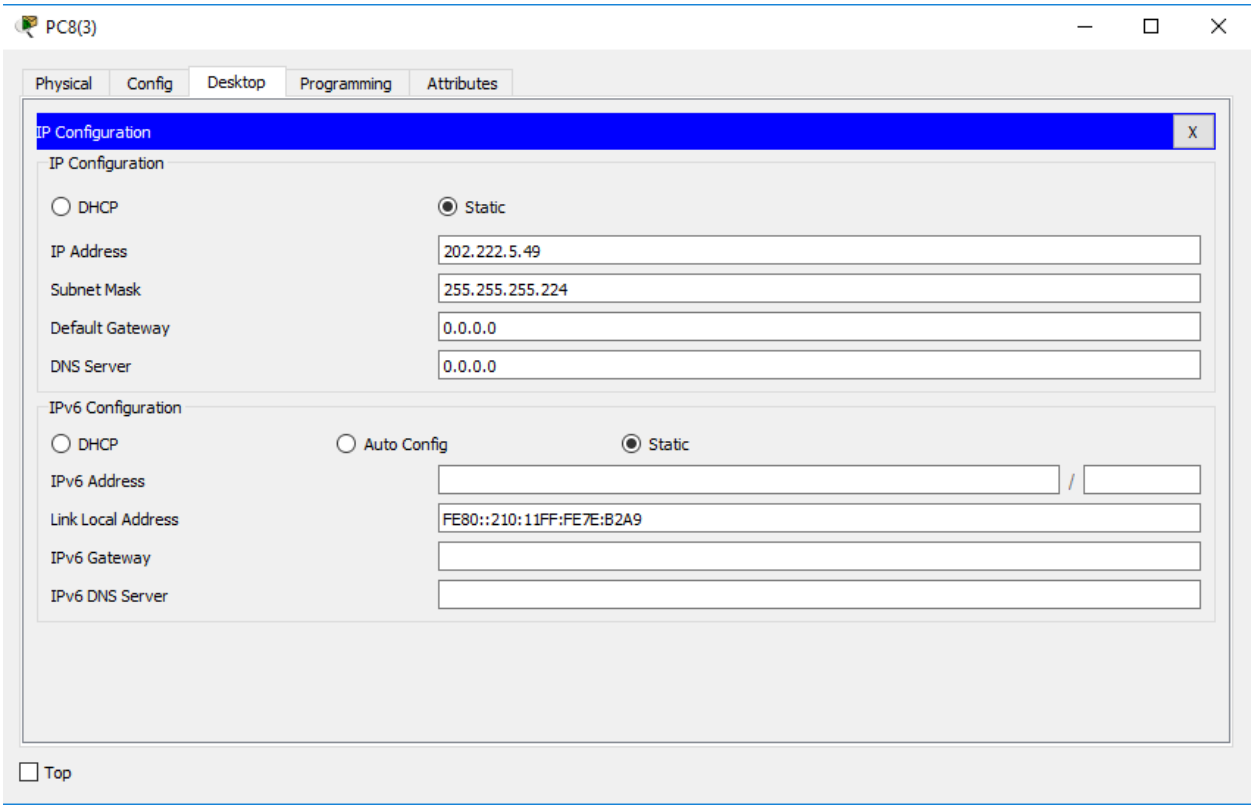
Network Address	Usable Host Range	Broadcast Address:
202.222.5.0	202.222.5.1 - 202.222.5.30	202.222.5.31
202.222.5.32	202.222.5.33 - 202.222.5.62	202.222.5.63
202.222.5.64	202.222.5.65 - 202.222.5.94	202.222.5.95
202.222.5.96	202.222.5.97 - 202.222.5.126	202.222.5.127
202.222.5.128	202.222.5.129 - 202.222.5.158	202.222.5.159
202.222.5.160	202.222.5.161 - 202.222.5.190	202.222.5.191
202.222.5.192	202.222.5.193 - 202.222.5.222	202.222.5.223
202.222.5.224	202.222.5.225 - 202.222.5.254	202.222.5.255

Konfigurasi IP address pada Design Packet Tracer :

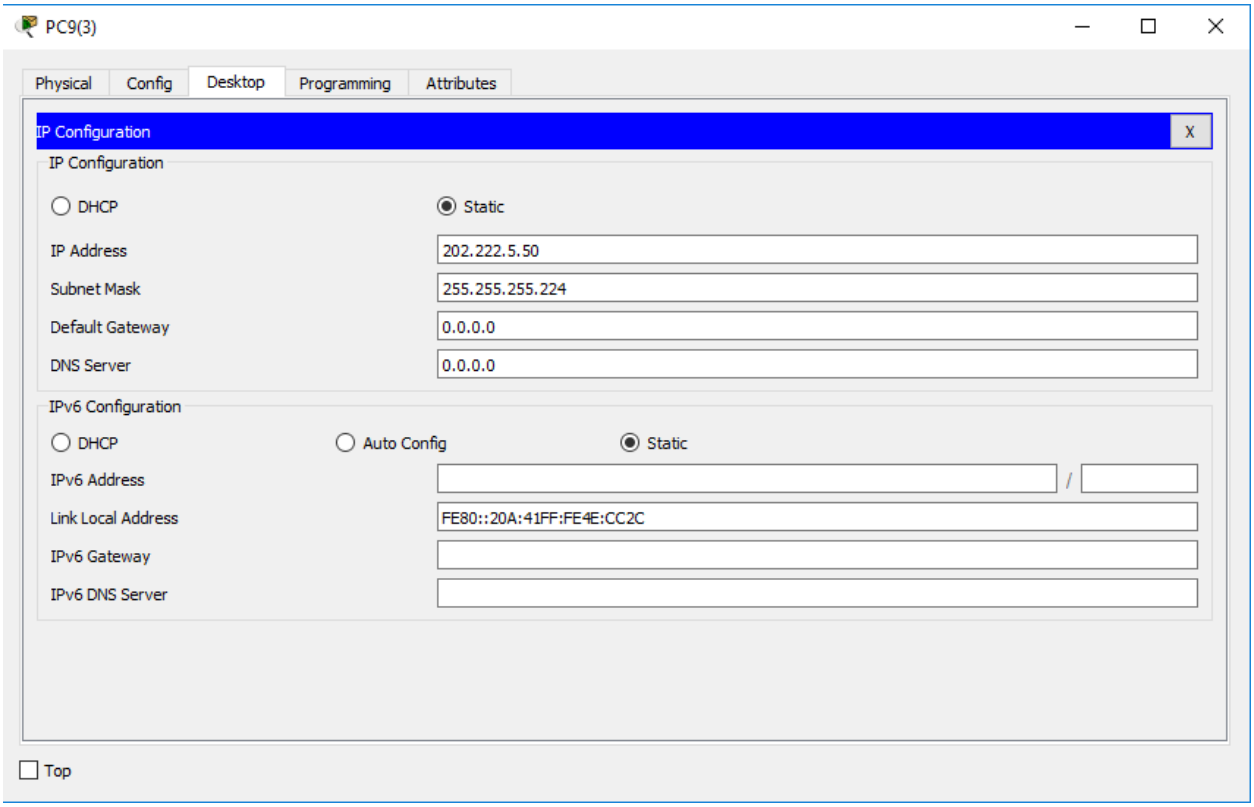




Sampai PC ke 49 dan ke 50


PC8(3)
Physical
Config
Desktop
Programming
Attributes
IP Configuration
X
IP Configuration
DHCP
Static
IP Address
202.222.5.49
Subnet Mask
255.255.255.224
Default Gateway
0.0.0.0
DNS Server
0.0.0.0
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
Link Local Address
FE80::210:11FF:FE7E:B2A9
IPv6 Gateway
IPv6 DNS Server
Top

(PC ke 49)

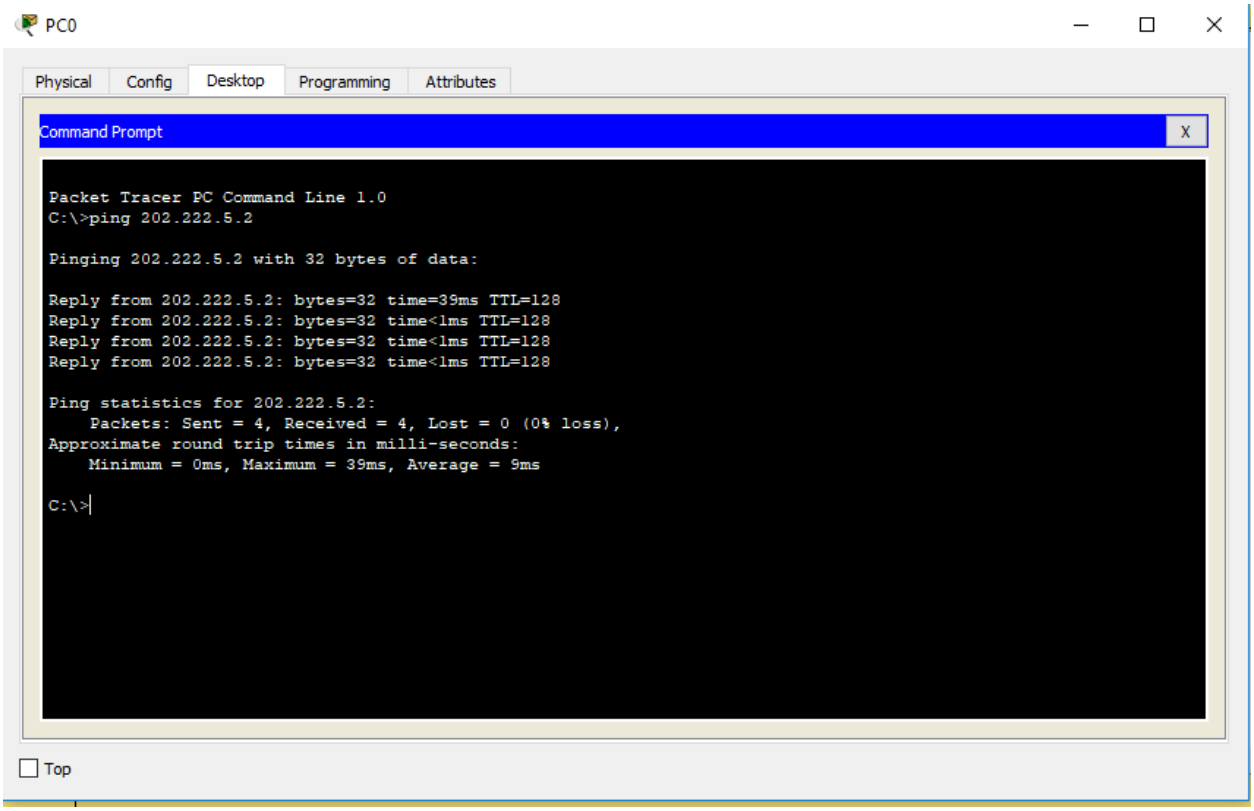


(PC ke 50)

UJI COBA :

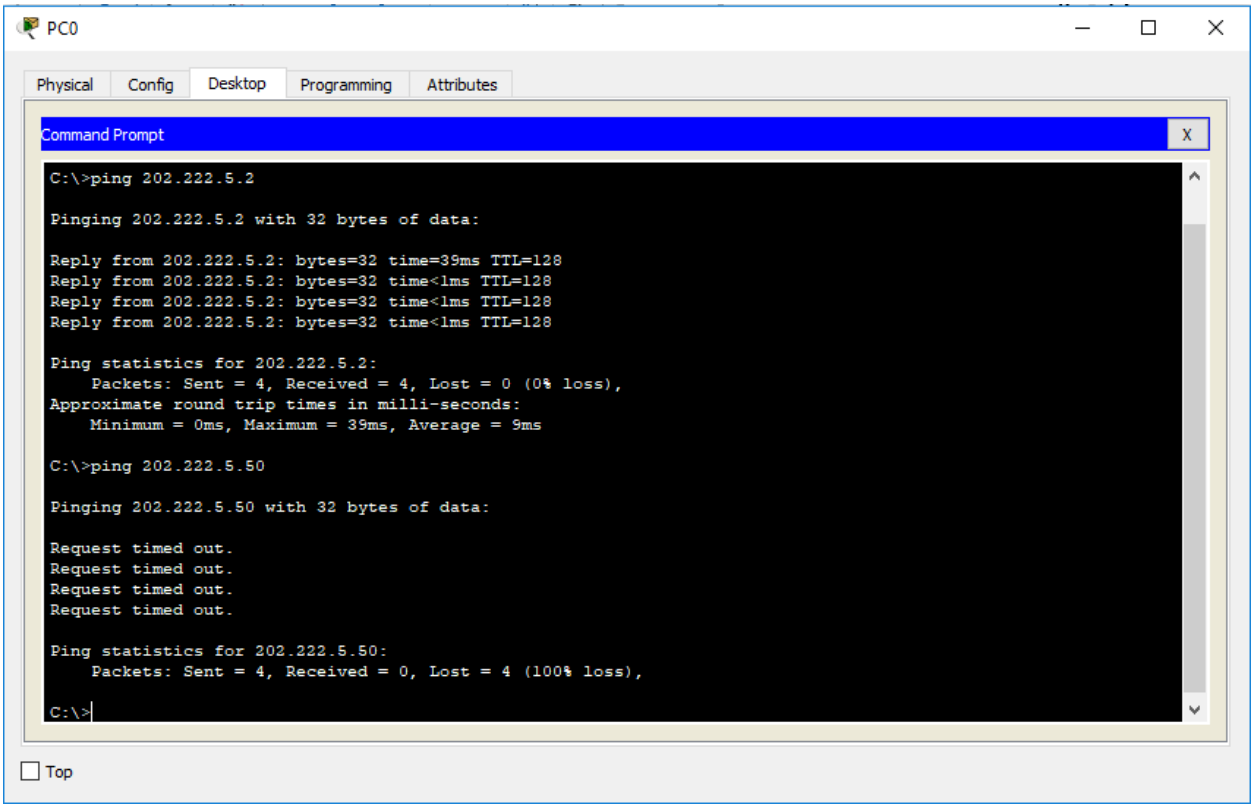
Pada dasarnya tiap switch dan tiap divisi ketika divisi 1 akan ping ke divisi 5 dan lainnya pasti akan gagal karena SUBNETING divisinya BERBEDA.

UJI COBA PC ke 1 dengan PC ke 2



(SUKSES KARENA SATU DIVISI)

UJI COBA PC ke 1 dengan PC ke 50,



(RTO)

Karena Berbeda DIVISI SUBNETINGNYA walaupun IP satu kelas dan berada pada satu NETWORK yang sama

KESIMPULAN :

Subneting akan berpengaruh kepada koneksi atau konektivitas pada tiap komputer yang memiliki IP. ***Karena jika divisi subnetting berbeda walaupun IP SATU KELAS dan berada pada satu NETWORK yang sama pasti tidak akan terhubung***