PRAKTIKUM JARINGAN KOMPUTER

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NIM : L200180084

Kelas : C

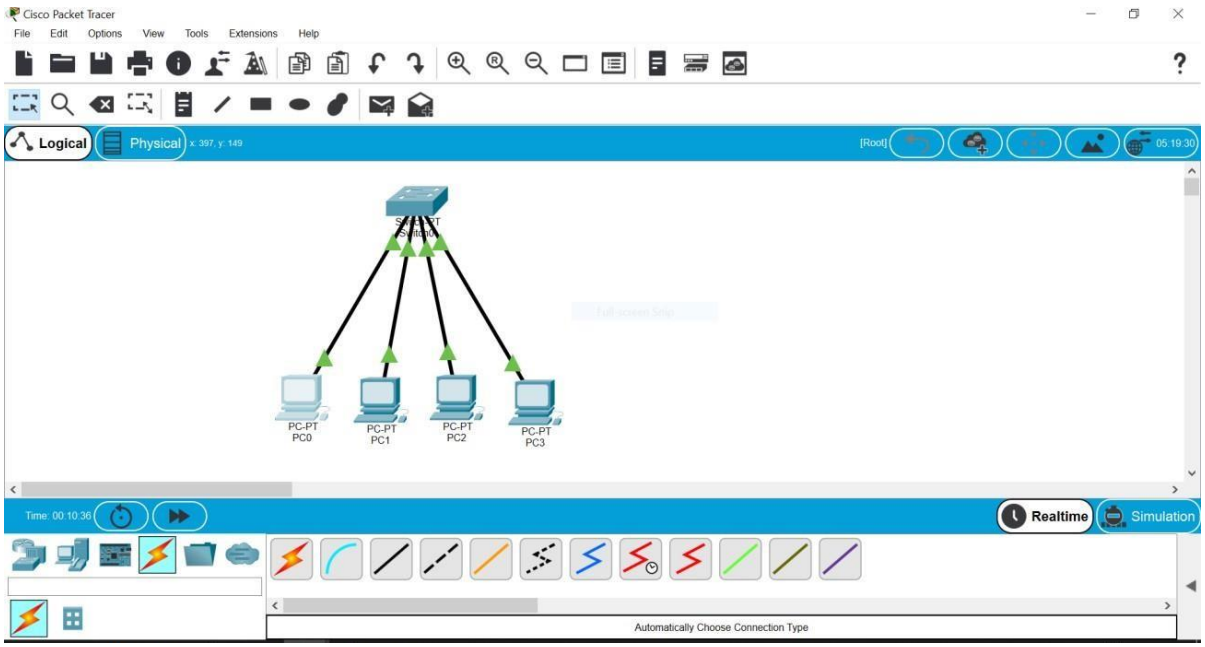
MODUL 3

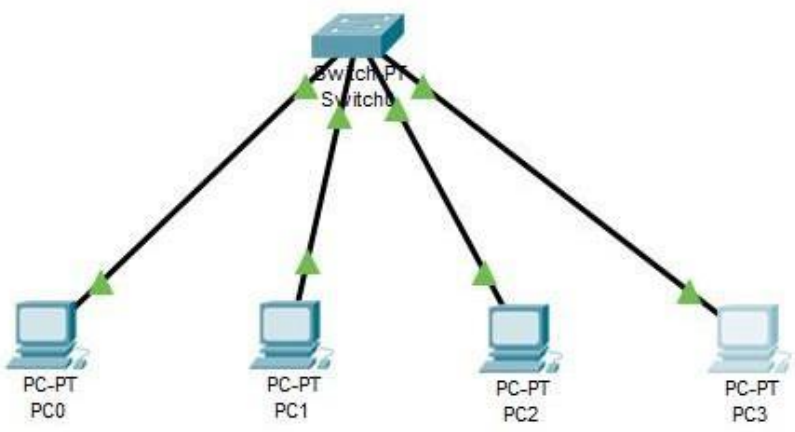
SUBNETTING

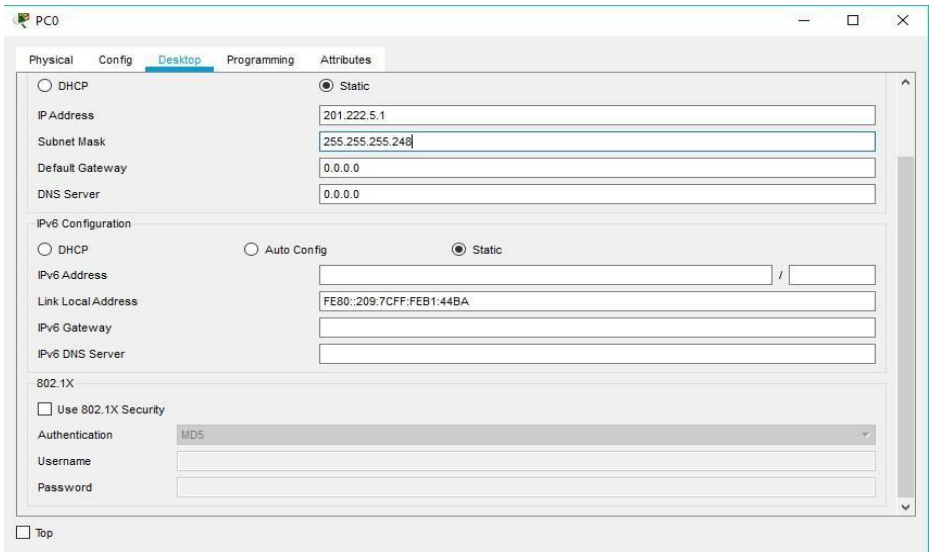
KEGIATAN PRAKTIKUM

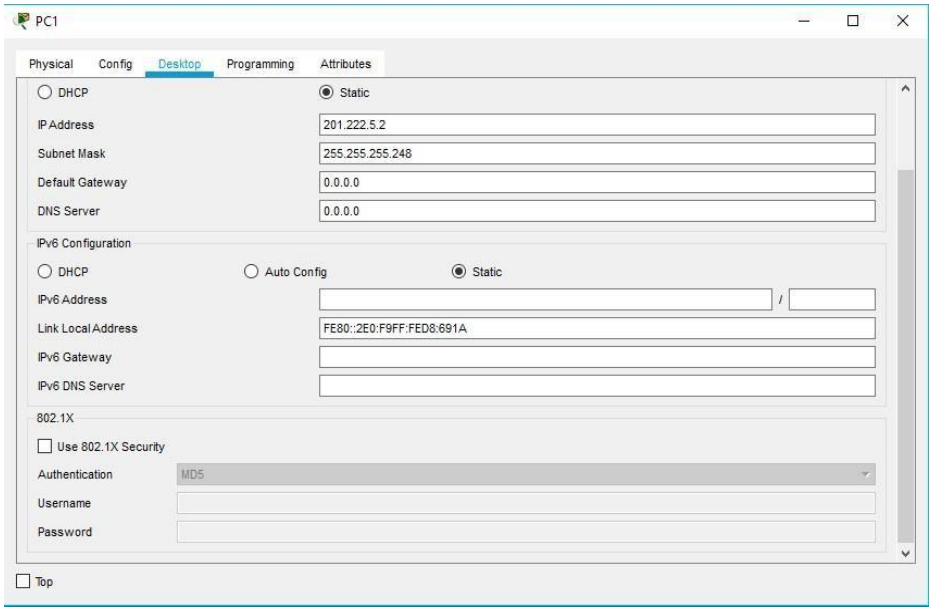
Kegiatan 1. Desain dan Konfigurasi Subnetting

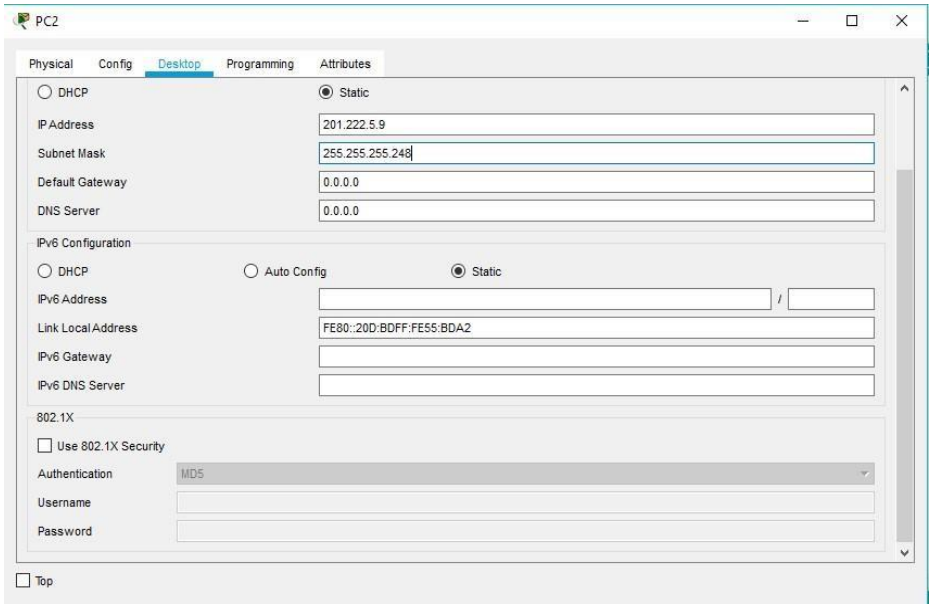
Ada empat unit komputer yang terhubung melalui switch.

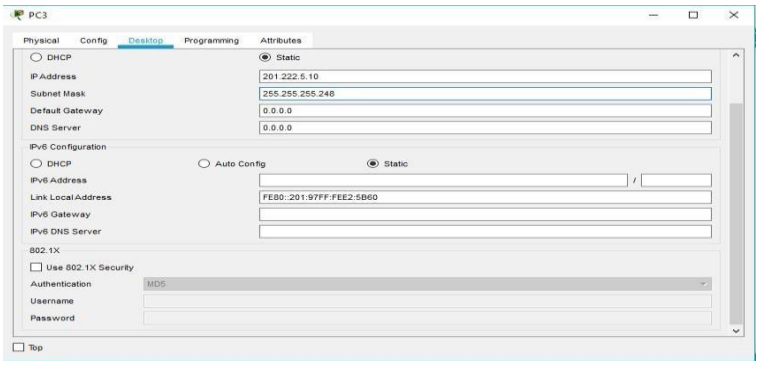


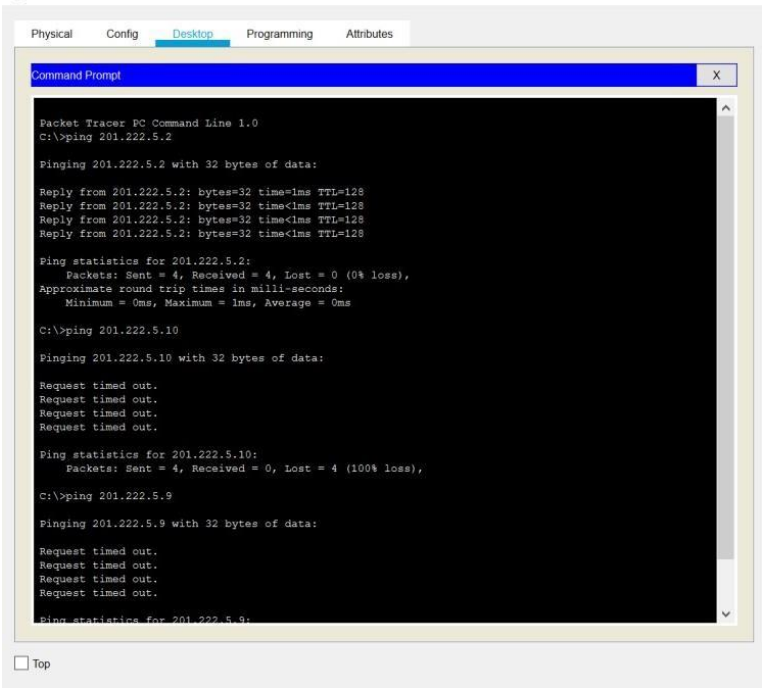


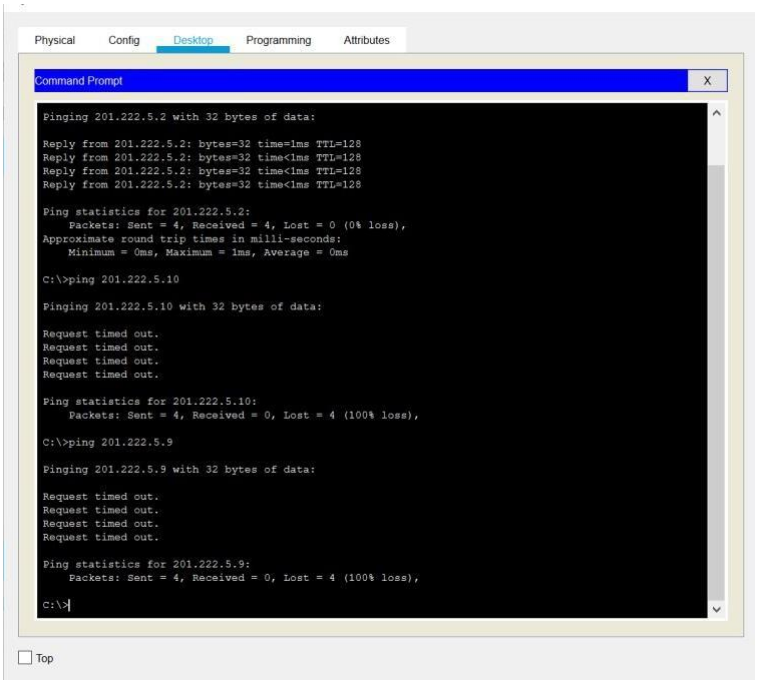

PC0
Physical
Config
Desktop
Programming
Attributes
DHCP
Static
IP Address
201.222.5.1
Subnet Mask
255.255.255.248
Default Gateway
0.0.0.0
DNS Server
0.0.0.0
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
Link Local Address
FE80::209:7CFF:FEB1:44BA
IPv6 Gateway
IPv6 DNS Server
802.1X
Use 802.1X Security
Authentication
MD5
Username
Password
Top


PC1
Physical
Config
Desktop
Programming
Attributes
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::2E0:F9FF:FED8:691A
IPv6 Gateway
IPv6 DNS Server
802.1X
Use 802.1X Security
Authentication
MD5
Username
Password
Top


PC2
Physical
Config
Desktop
Programming
Attributes
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::20D:BDFF:FE55:BDA2
IPv6 Gateway
IPv6 DNS Server
802.1X
Use 802.1X Security
Authentication
MD5
Username
Password
Top

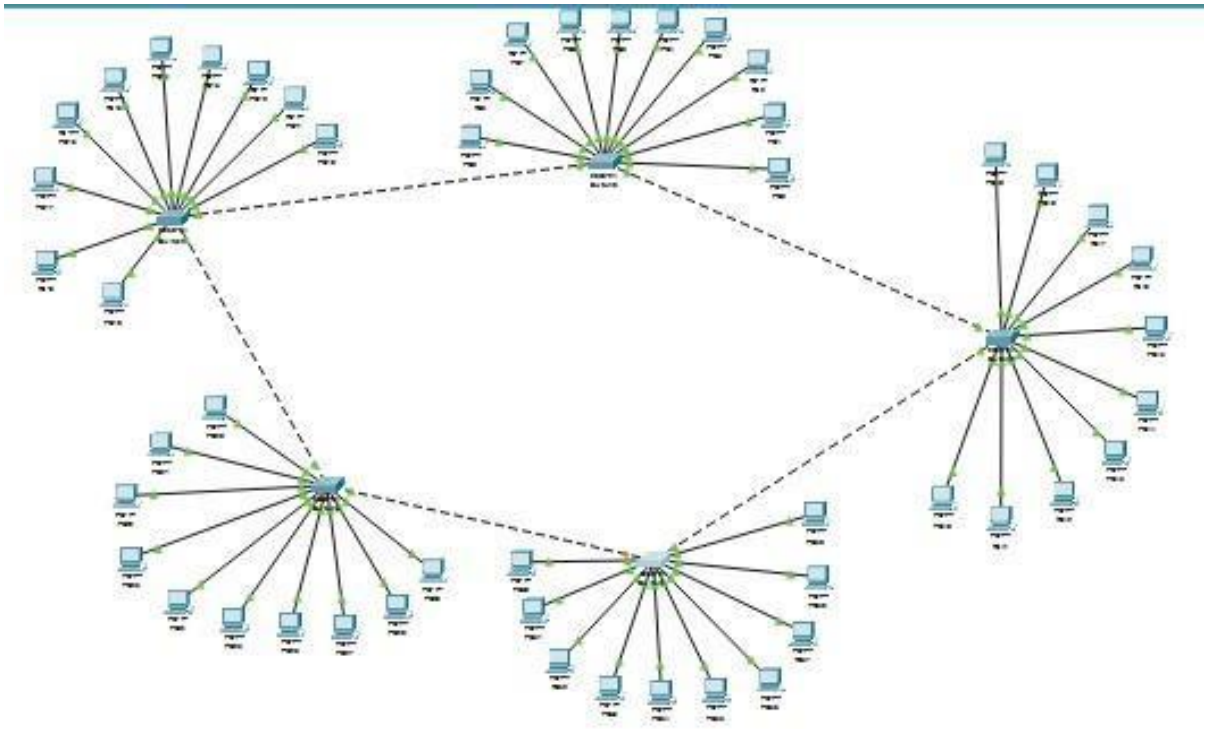

PC3
Physical
Config
Desktop
Programming
Attributes
DHCP
Static
IP Address
201.222.5.10
Subnet Mask
255.255.255.248
Default Gateway
0.0.0.0
DNS Server
0.0.0.0
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
Link Local Address
FE80::201:97FF:FEE2:5B60
IPv6 Gateway
IPv6 DNS Server
802.1X
Use 802.1X Security
Authentication
MD5
Username
Password
Top


Physical
Config
Desktop
Programming
Attributes
Command Prompt
X
Packet Tracer PC Command Line 1.0
C:\>ping 201.222.5.2
Pinging 201.222.5.2 with 32 bytes of data:
Reply from 201.222.5.2: bytes=32 time=1ms TTL=128
Reply from 201.222.5.2: bytes=32 time<1ms TTL=128
Reply from 201.222.5.2: bytes=32 time<1ms TTL=128
Reply from 201.222.5.2: bytes=32 time<1ms TTL=128
Ping statistics for 201.222.5.2:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 1ms, Average = 0ms
C:\>ping 201.222.5.10
Pinging 201.222.5.10 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
Ping statistics for 201.222.5.10:
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\>ping 201.222.5.9
Pinging 201.222.5.9 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
Top


Physical
Config
Desktop
Programming
Attributes
Command Prompt
X
Pinging 201.222.5.2 with 32 bytes of data:
Reply from 201.222.5.2: bytes=32 time=1ms TTL=128
Reply from 201.222.5.2: bytes=32 time<1ms TTL=128
Reply from 201.222.5.2: bytes=32 time<1ms TTL=128
Reply from 201.222.5.2: bytes=32 time<1ms TTL=128
Ping statistics for 201.222.5.2:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 1ms, Average = 0ms
C:\>ping 201.222.5.10
Pinging 201.222.5.10 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
Ping statistics for 201.222.5.10:
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\>ping 201.222.5.9
Pinging 201.222.5.9 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
Ping statistics for 201.222.5.9:
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\>
Top

PC0 ketika dihubungkan dengan PC1 terhubung karena network addressnya sama, sedangkan PC0 dihubungkan ke PC3 atau PC4 tidak terhubung karena network addressnya berbeda.

TUGAS MODUL



Network ID 202.155.19.0 dengan subnet mask default 255.255.255.0

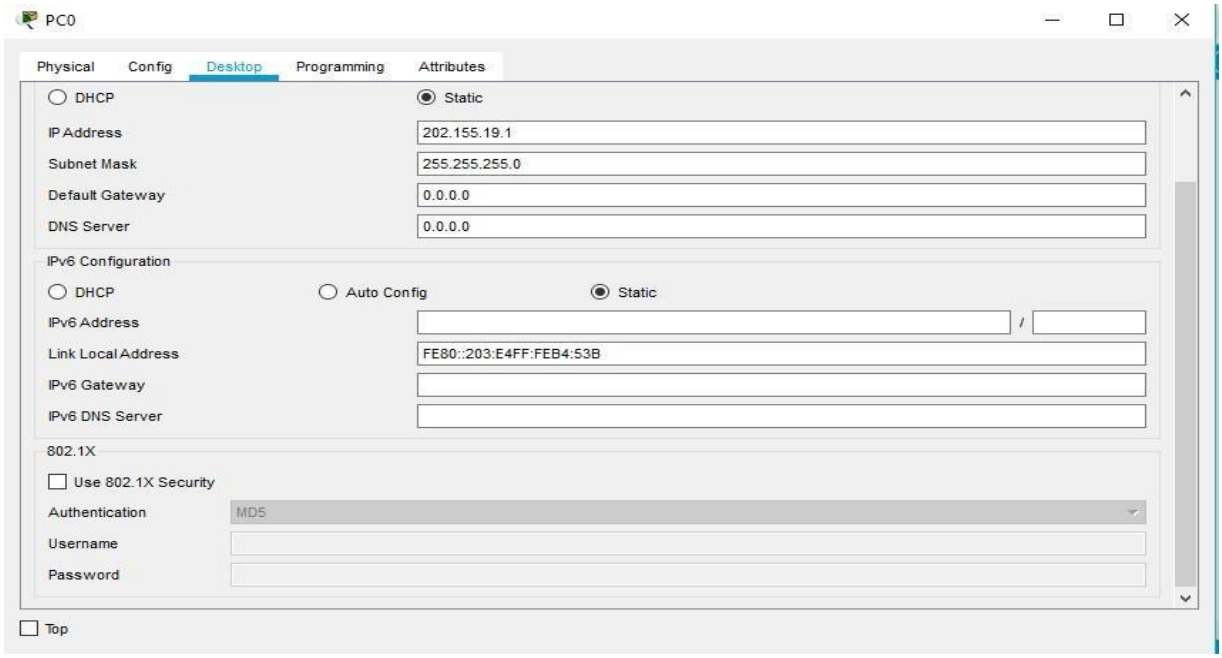
11111111.11111111.11111111.00000000

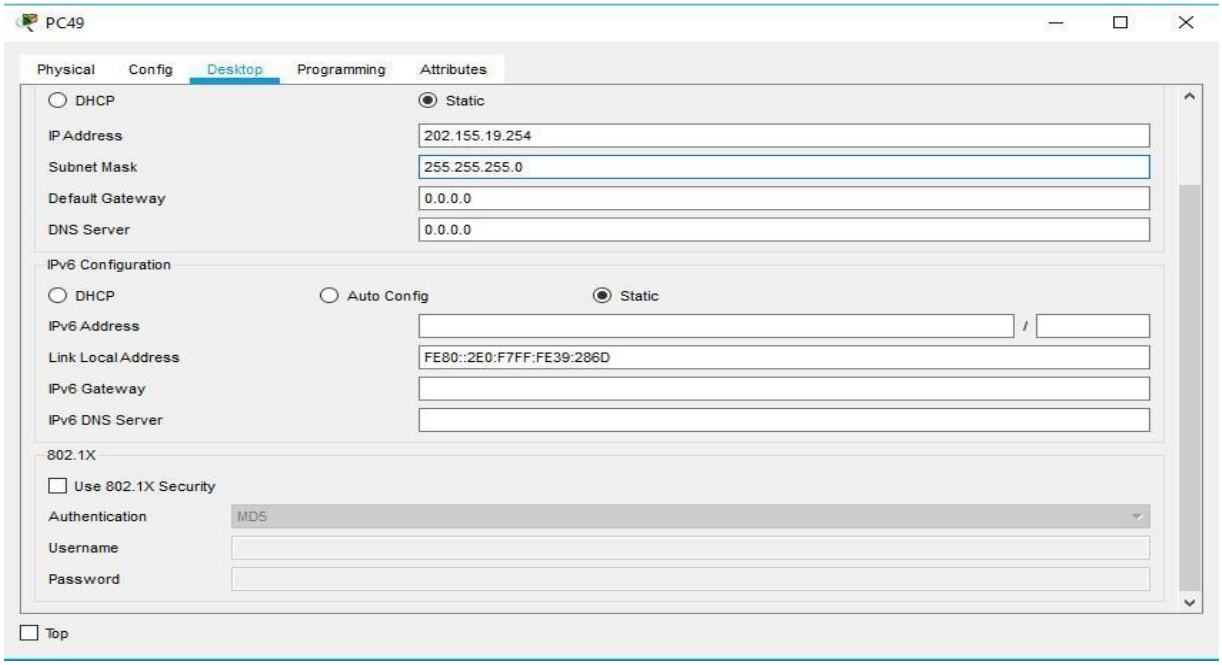
255.255.255.0

1) Jumlah subnet: $2^x = 2^0 = 1$ subnet
2) Jumlah host: $2^y - 2 = 2^8 - 2 = 256 - 2 = 254$ host
3) Blok subnet: $256 - 0 = 256$
4) Table subnet:

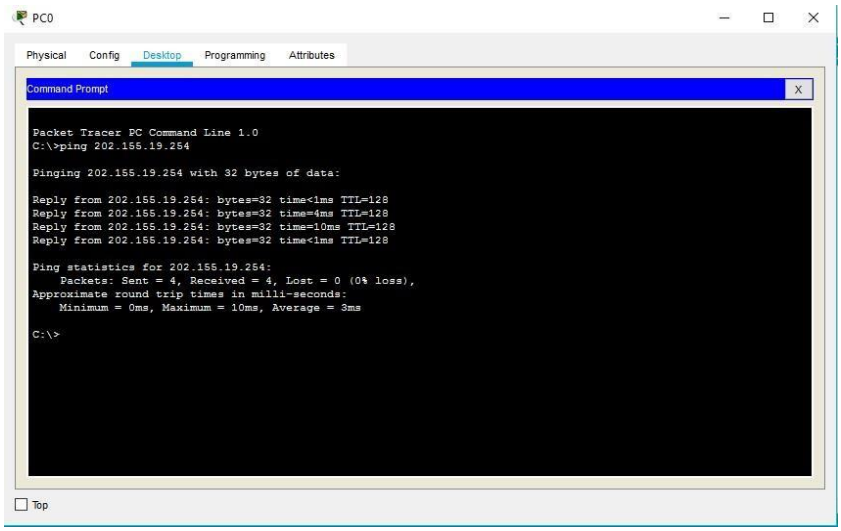
Network	202.155.19.0
Host pertama	202.155.19.1
Host terakhir	202.155.19.254
Broadcast	202.155.19.255

Memberikan IP Address pada semua PC

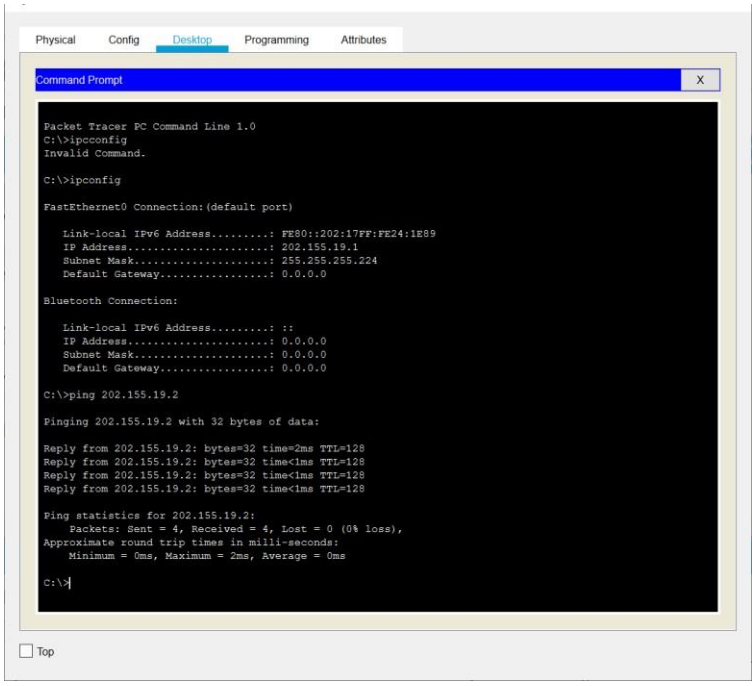




Melakukan ping di PC 0 dengan IP Address PC 49

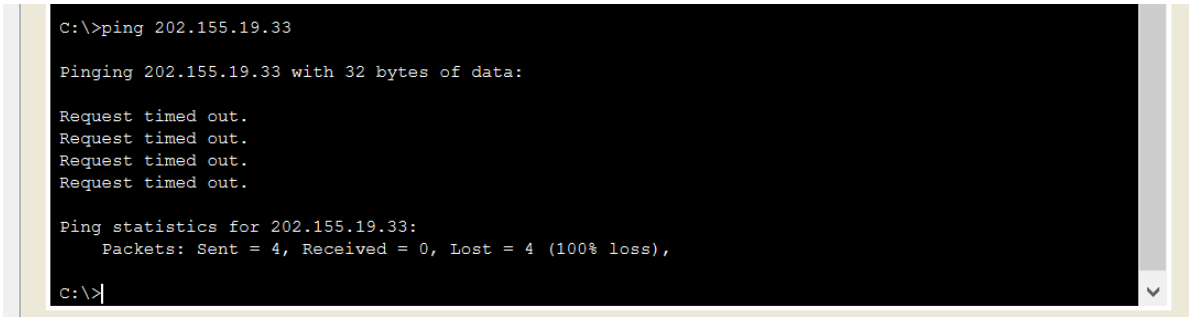


Melakukan ping dari PC Divisi 1 ke PC Divisi 1



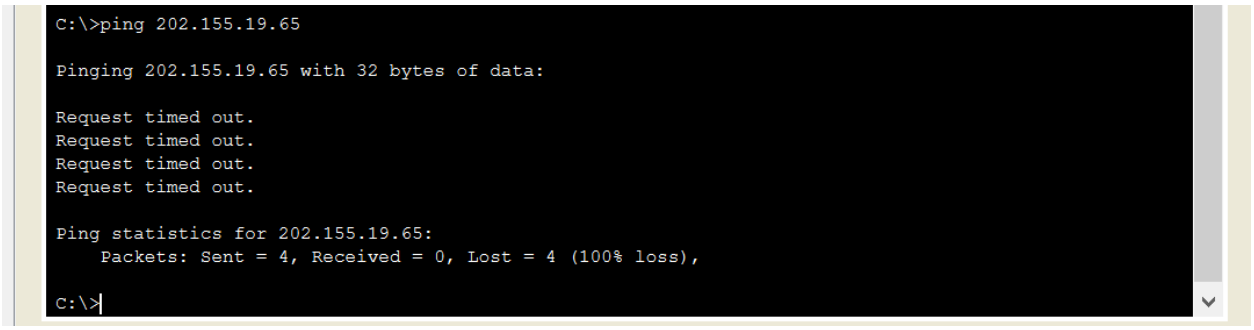
Dapat terhubung karena network addressnya sama.

Melakukan ping dari PC Divisi 1 ke PC Divisi 2



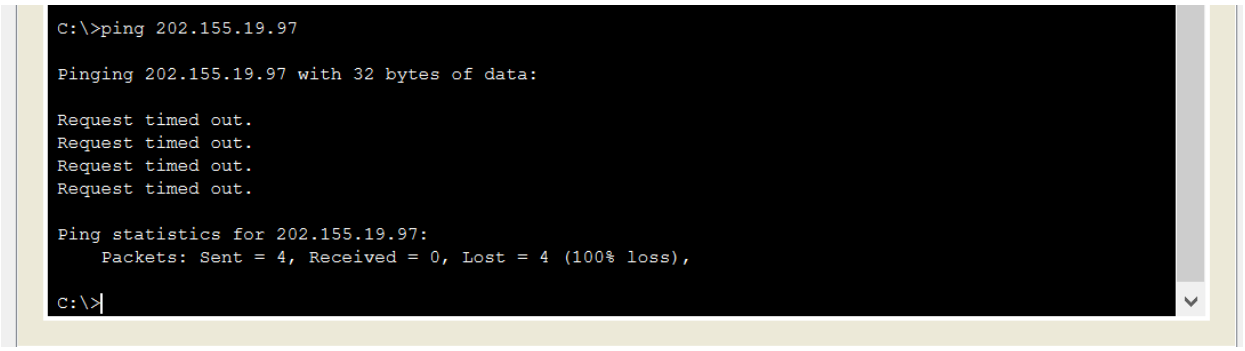
Terjadi Request Timed Out karena network addressnya berbeda.

Melakukan ping dari PC Divisi 1 ke PC Divisi 3



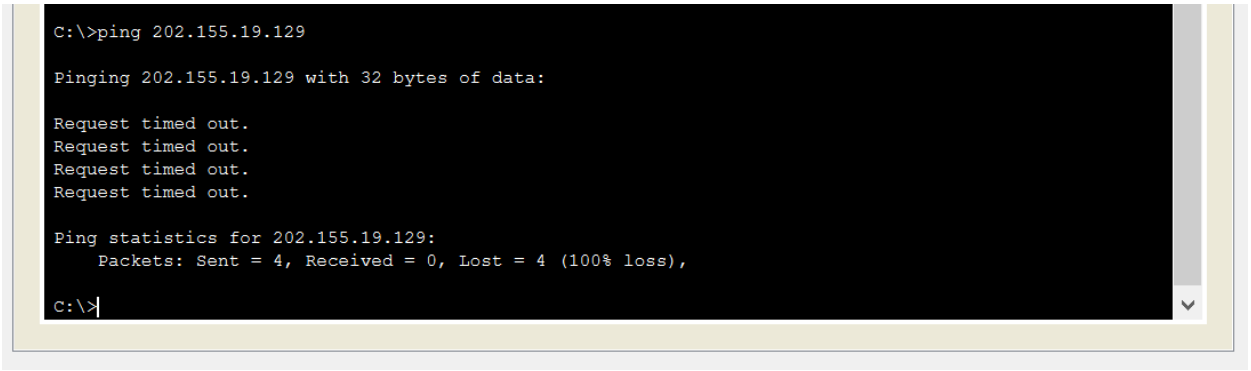
Terjadi Request Timed Out karena network addressnya berbeda.

Melakukan ping dari PC Divisi 1 ke PC Divisi 4



Terjadi Request Timed Out karena network addressnya berbeda.

Melakukan ping dari PC Divisi 1 ke PC Divisi 5



Terjadi Request Timed Out karena network addressnya berbeda