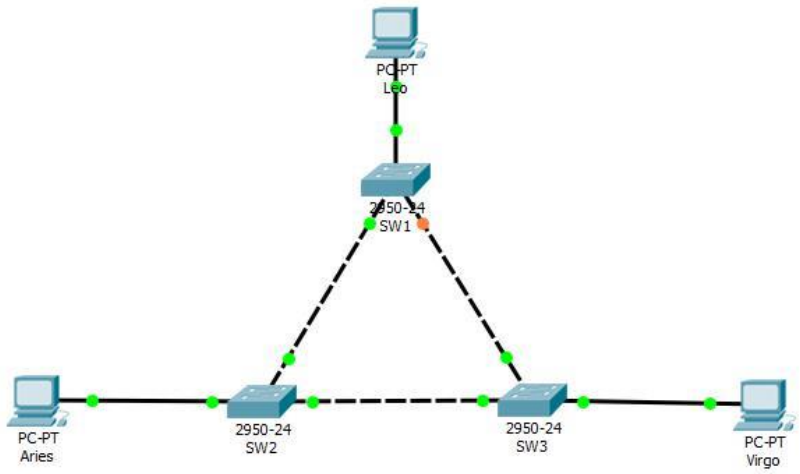
Nama : Aulia Yogatama

NIM : L200180081
Kelas : B

MODUL 6

Kegiatan 1. Topologi 1

Membuat topologi



Tugas 1A : Langkah pembuatan topologi

- Pada bagian Network Devices, klik bagian Switches, dan letakkan 3 buah Switch tipe 2950-24 dengan rangkai seperti gambar.
- Klik ikon End Devices, klik ikon PC dengan keterangan Generic Computer, letakkan 3 buah di dekat Switch masing-masing satu.
- Untuk menghubungkan Switch dan PC, pada bagian Connections klik ikon petir, lalu sambungkan rangkaian.

Tugas 2A : Memberi nama Switch melalui mode user

Switch>enable

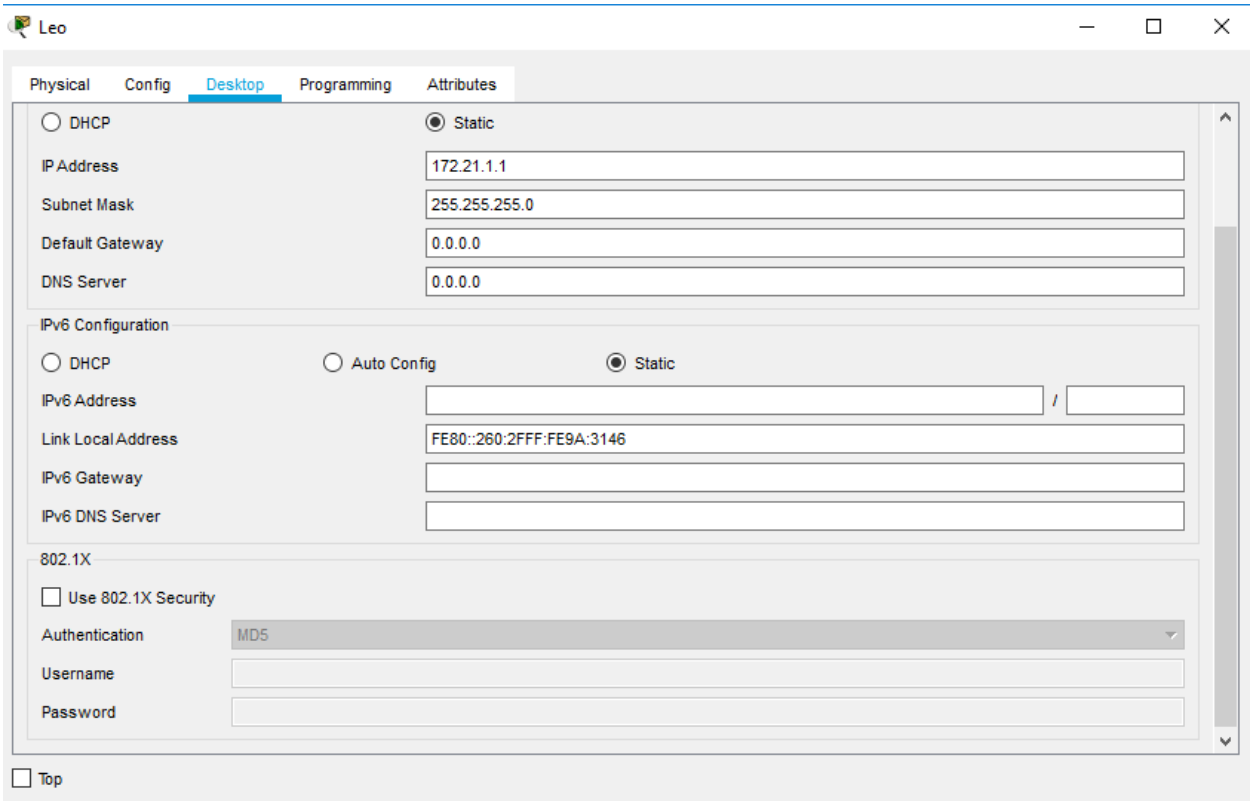
Switch#conf term

Switch(config)#hostname SW1

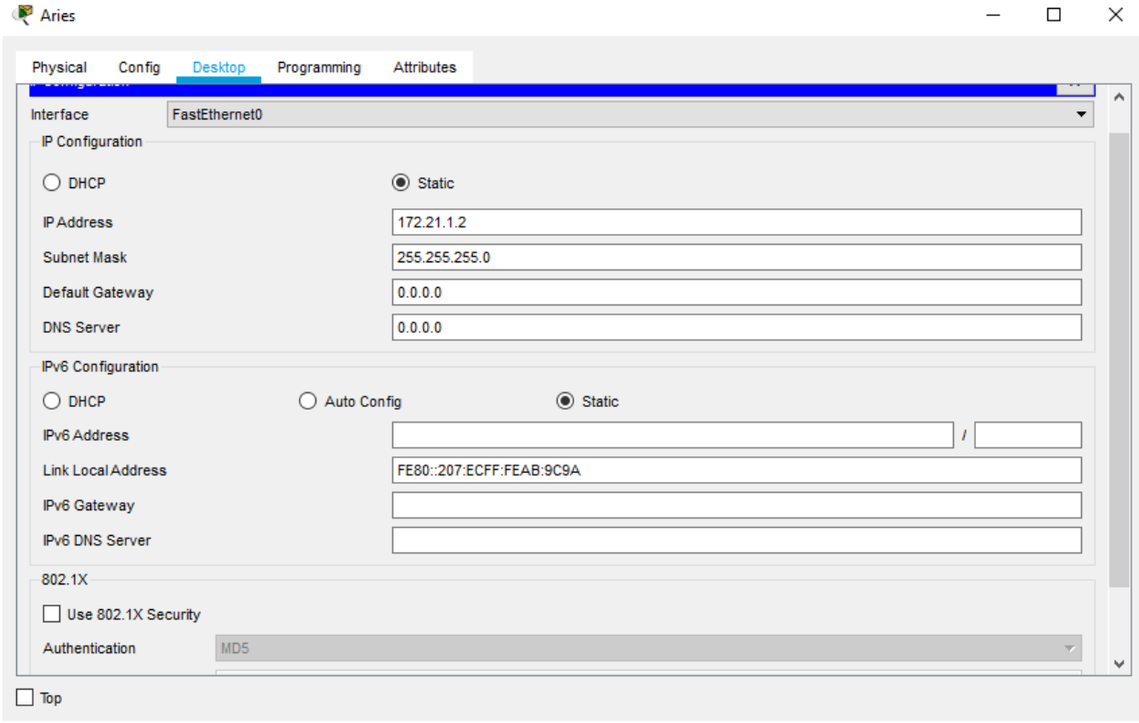
SW1(config)#end

Konfigurasi masing-masing PC

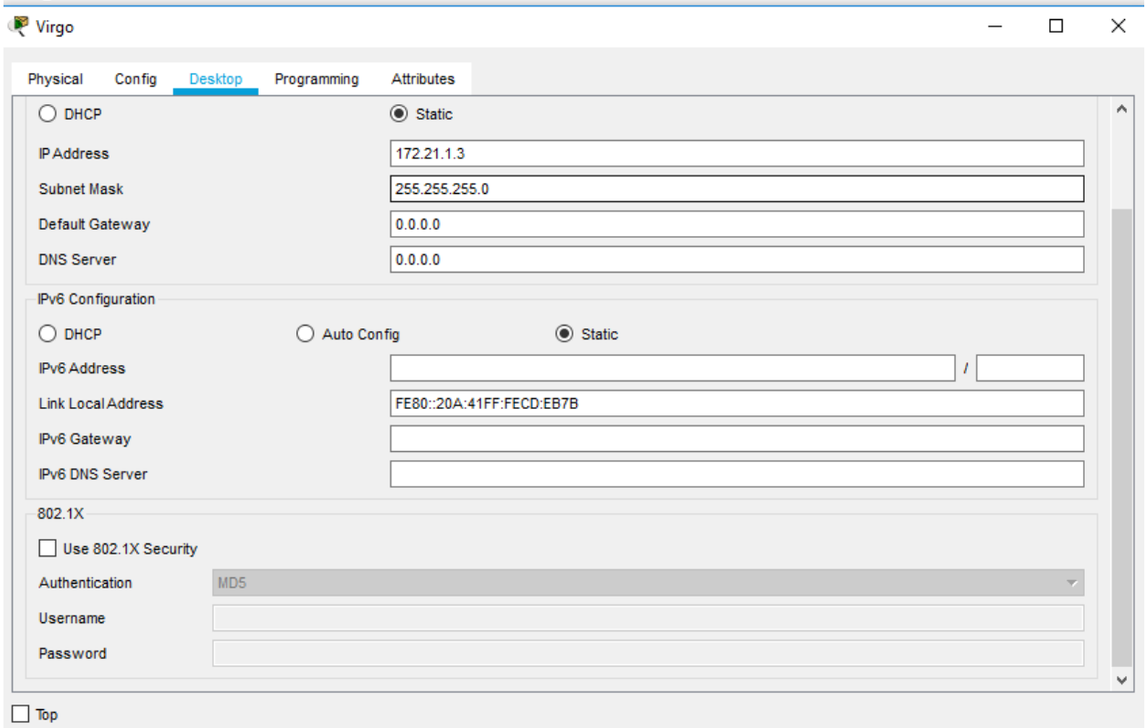
- Leo



Aries

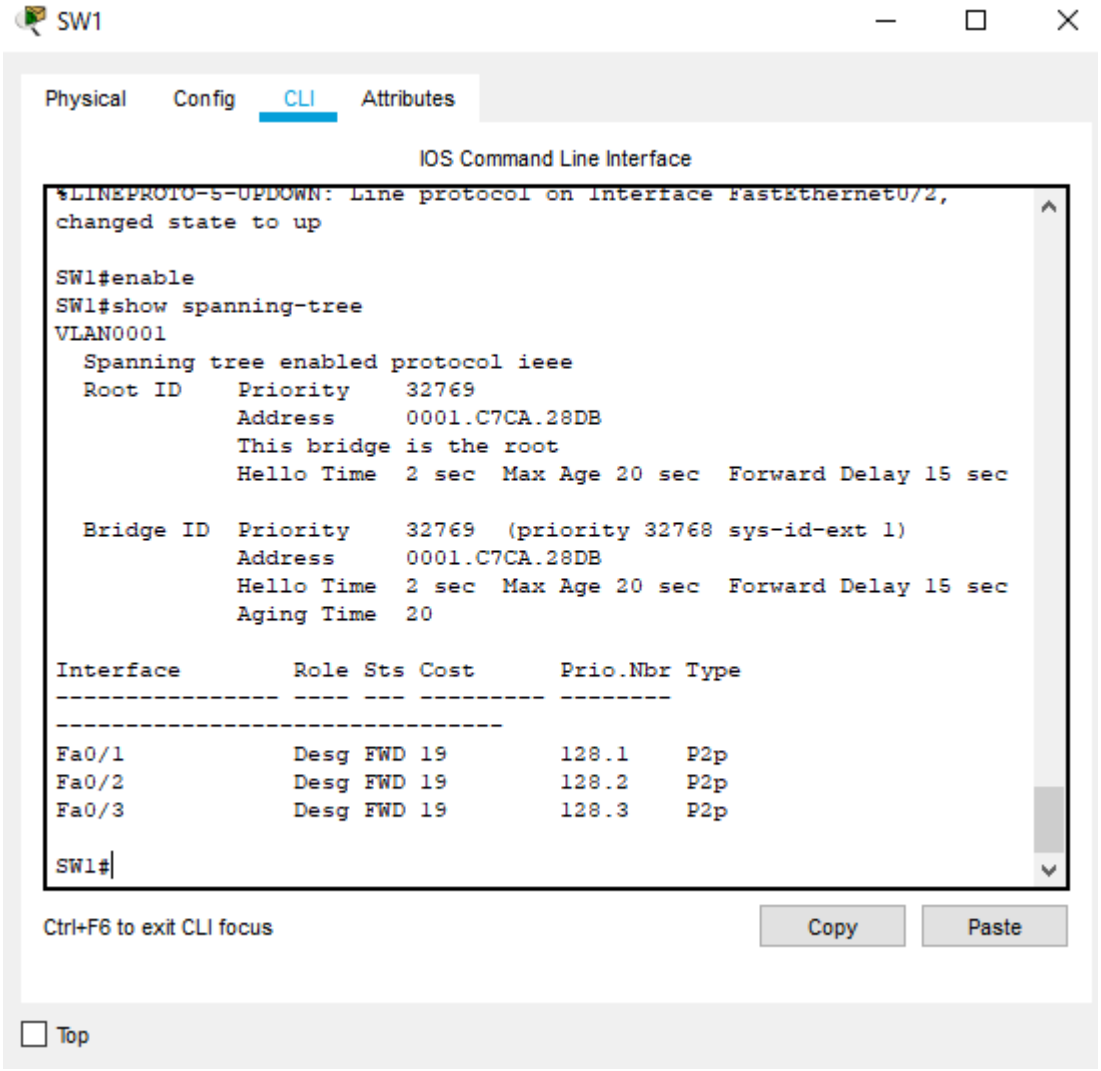

Aries
Physical
Config
Desktop
Programming
Attributes
Interface
FastEthernet0
IP Configuration
DHCP
Static
IP Address
172.21.1.2
Subnet Mask
255.255.255.0
Default Gateway
0.0.0.0
DNS Server
0.0.0.0
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
Link Local Address
FE80::207:ECFF:FEAB:9C9A
IPv6 Gateway
IPv6 DNS Server
802.1X
Use 802.1X Security
Authentication
MD5
Top

Virgo

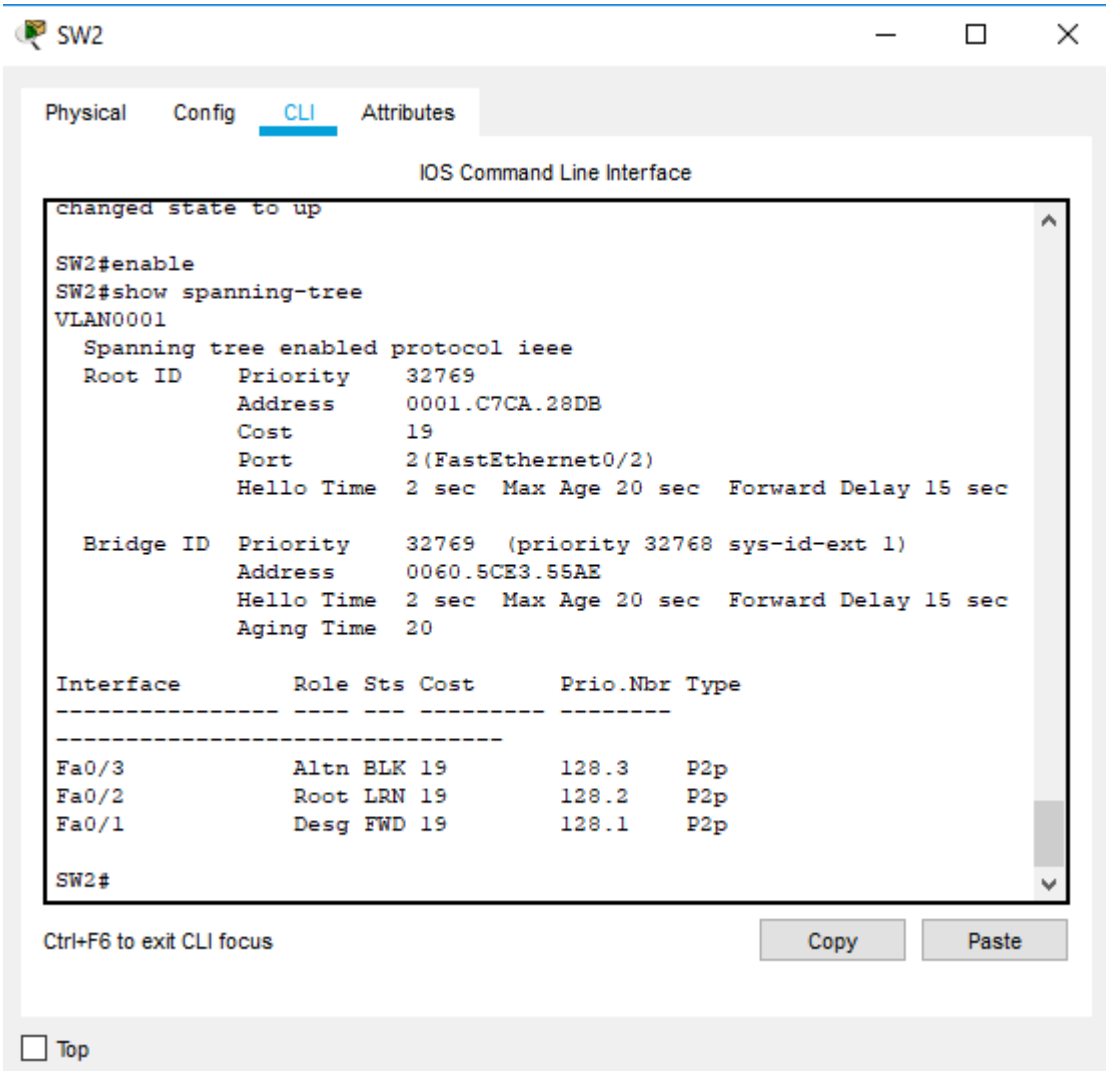

Virgo
Physical
Config
Desktop
Programming
Attributes
DHCP
Static
IP Address
172.21.1.3
Subnet Mask
255.255.255.0
Default Gateway
0.0.0.0
DNS Server
0.0.0.0
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
Link Local Address
FE80::20A:41FF:FECD:EB7B
IPv6 Gateway
IPv6 DNS Server
802.1X
Use 802.1X Security
Authentication
MD5
Username
Password
Top

Tugas 4A : Pada mode *user* atau *privileged*, lihat status STP pada masing-masing switch.

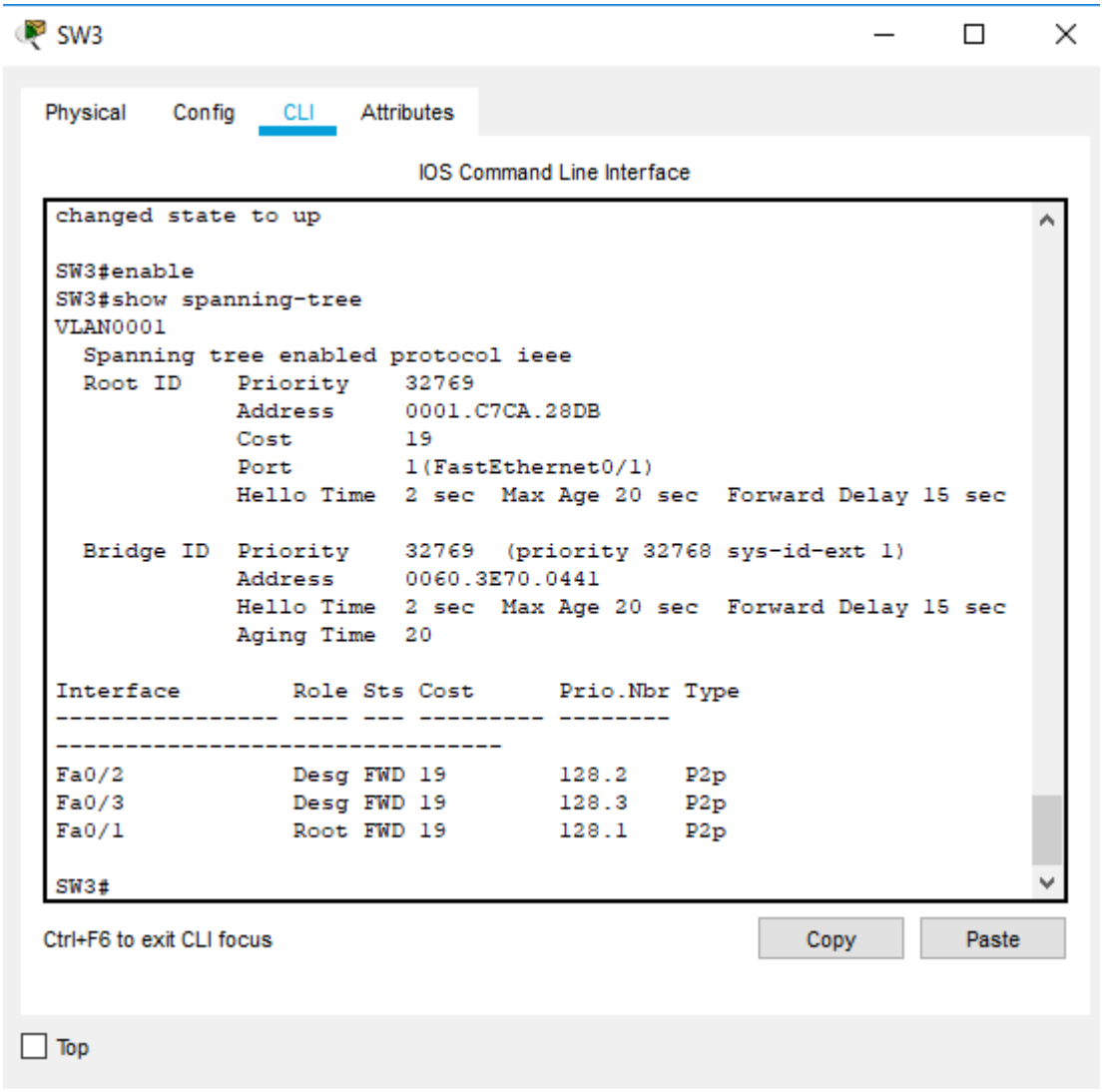
- SW1



- SW2


SW2
Physical
Config
CLI
Attributes
IOS Command Line Interface
changed state to up
SW2#enable
SW2#show spanning-tree
VLAN0001
Spanning tree enabled protocol ieee
Root ID Priority 32769
Address 0001.C7CA.28DB
Cost 19
Port 2(FastEthernet0/2)
Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
Bridge ID Priority 32769 (priority 32768 sys-id-ext 1)
Address 0060.5CE3.55AE
Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
Aging Time 20
Interface Role Sts Cost Prio.Nbr Type
Fa0/3 Altn BLK 19 128.3 P2p
Fa0/2 Root LRN 19 128.2 P2p
Fa0/1 Desg FWD 19 128.1 P2p
SW2#
Ctrl+F6 to exit CLI focus
Copy
Paste
Top

- SW3


SW3
Physical
Config
CLI
Attributes
IOS Command Line Interface
changed state to up
SW3#enable
SW3#show spanning-tree
VLAN0001
Spanning tree enabled protocol ieee
Root ID Priority 32769
Address 0001.C7CA.28DB
Cost 19
Port 1(FastEthernet0/1)
Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
Bridge ID Priority 32769 (priority 32768 sys-id-ext 1)
Address 0060.3E70.0441
Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec
Aging Time 20
Interface Role Sts Cost Prio.Nbr Type
Fa0/2 Desg FWD 19 128.2 P2p
Fa0/3 Desg FWD 19 128.3 P2p
Fa0/1 Root FWD 19 128.1 P2p
SW3#
Ctrl+F6 to exit CLI focus
Copy
Paste
Top

Tugas 4B : Tabel tiap switch

- SW1

No	Variabel	Nilai
1	Root ID	32769
2	Priority	32769
3	MAC Address	0001.C7CA.28DB
4	Bridge ID	32769
5	Cost (0/1 ; 0/2 ; 0/3)	19

6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

- SW2

No	Variabel	Nilai
1	Root ID	32769
2	Priority	32769
3	MAC Address	0001.C7CA.28DB
4	Bridge ID	32769
5	Cost (0/1 ; 0/2 ; 0/3)	19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

- SW3

No	Variabel	Nilai
1	Root ID	32769
2	Priority	32769
3	MAC Address	0001.C7CA.28DB
4	Bridge ID	32769
5	Cost (0/1 ; 0/2 ; 0/3)	19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

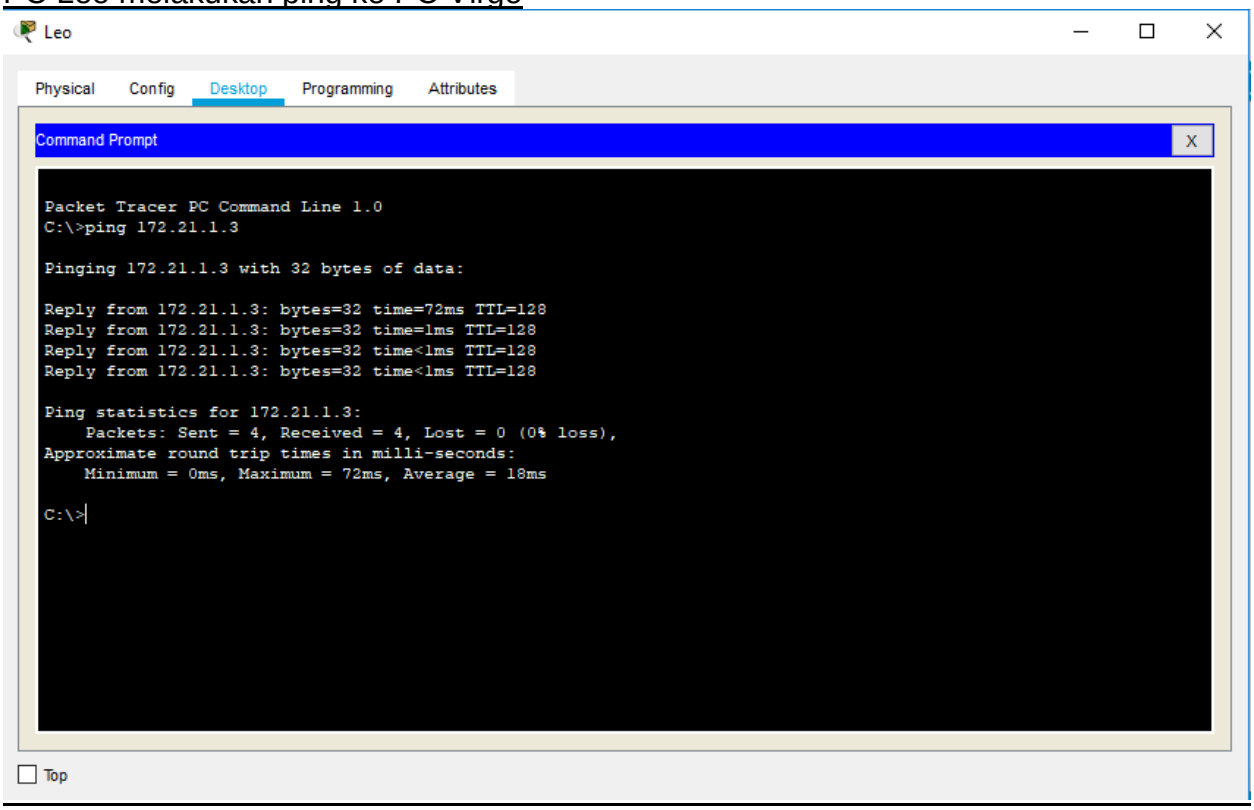
Tugas 4C :

- Root bridge : SW1
- Designated bridge : SW3
- Root port : SW2 (Fa0/2), SW3 (Fa0/1)
- Designated port : SW1 (Fa0/1,Fa0/2,Fa0/3), SW2 (Fa0/3, Fa0/2, Fa0/1), SW3 (Fa0/2, Fa0/3, Fa0/1)

Tugas 4D :

- Keadaan forwarding :
  - SW1 (Fa0/1, Fa0/2,Fa0/3),
  - SW2 (Fa0/1,),
  - SW3 (Fa0/2, Fa0/3,Fa0/1)
- Keadaan Blocking : SW2 (Fa0/3)

PC Leo melakukan ping ke PC Virgo



Tugas 5A : Langkah perinta ping

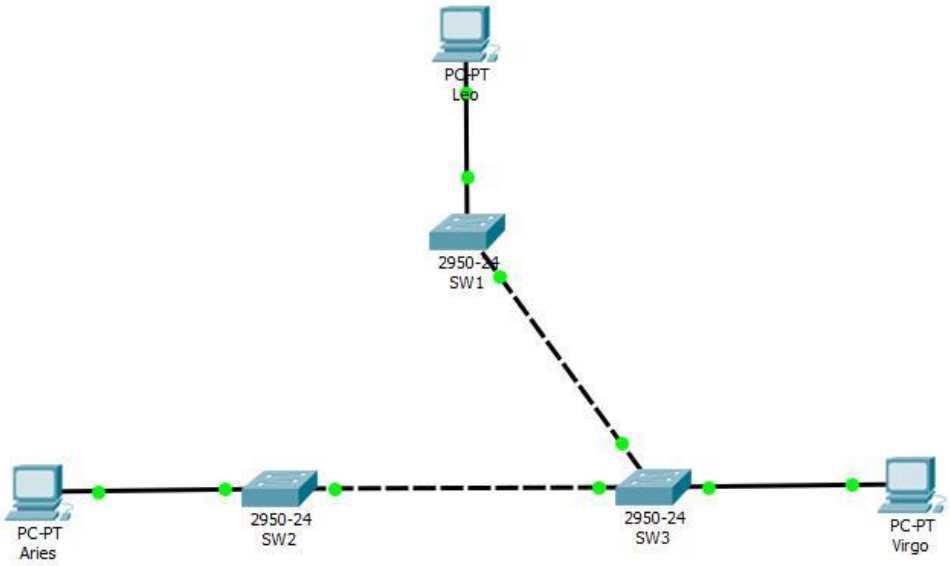
1. Klik PC Leo
2. Pilih tab desktop
3. Pilih command promp
4. Ketikkan ping 172.21.1.3

Tugas 6A : Langkah menyimpan konfigurasi jaringan

1. Klik File
2. Pilih Save
3. Beri nama lab2.ekstensi akan menyesuaikan dengan aplikasi yg digunakan

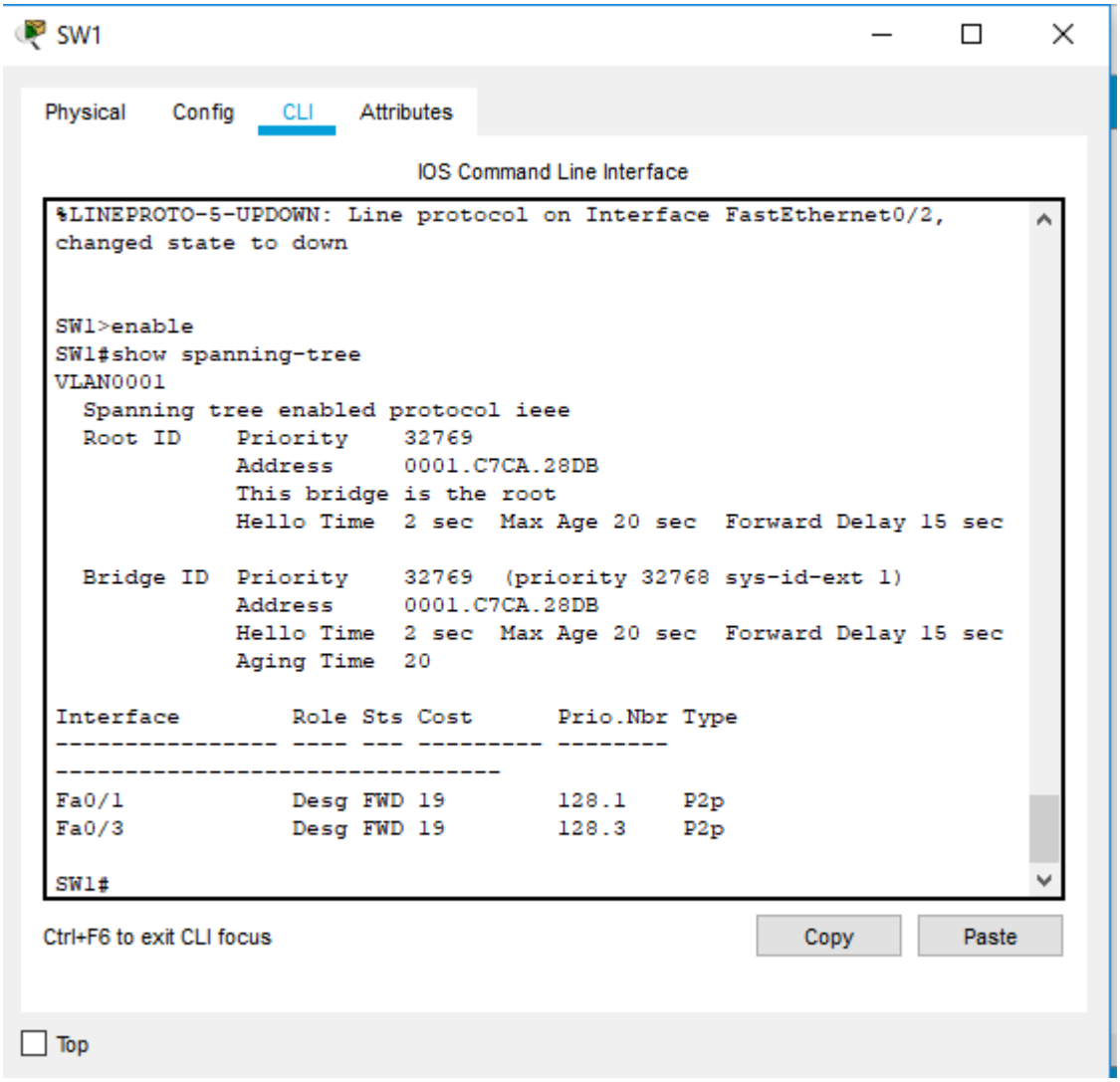
Kegiatan 2. Topologi 2

Membuat topologi



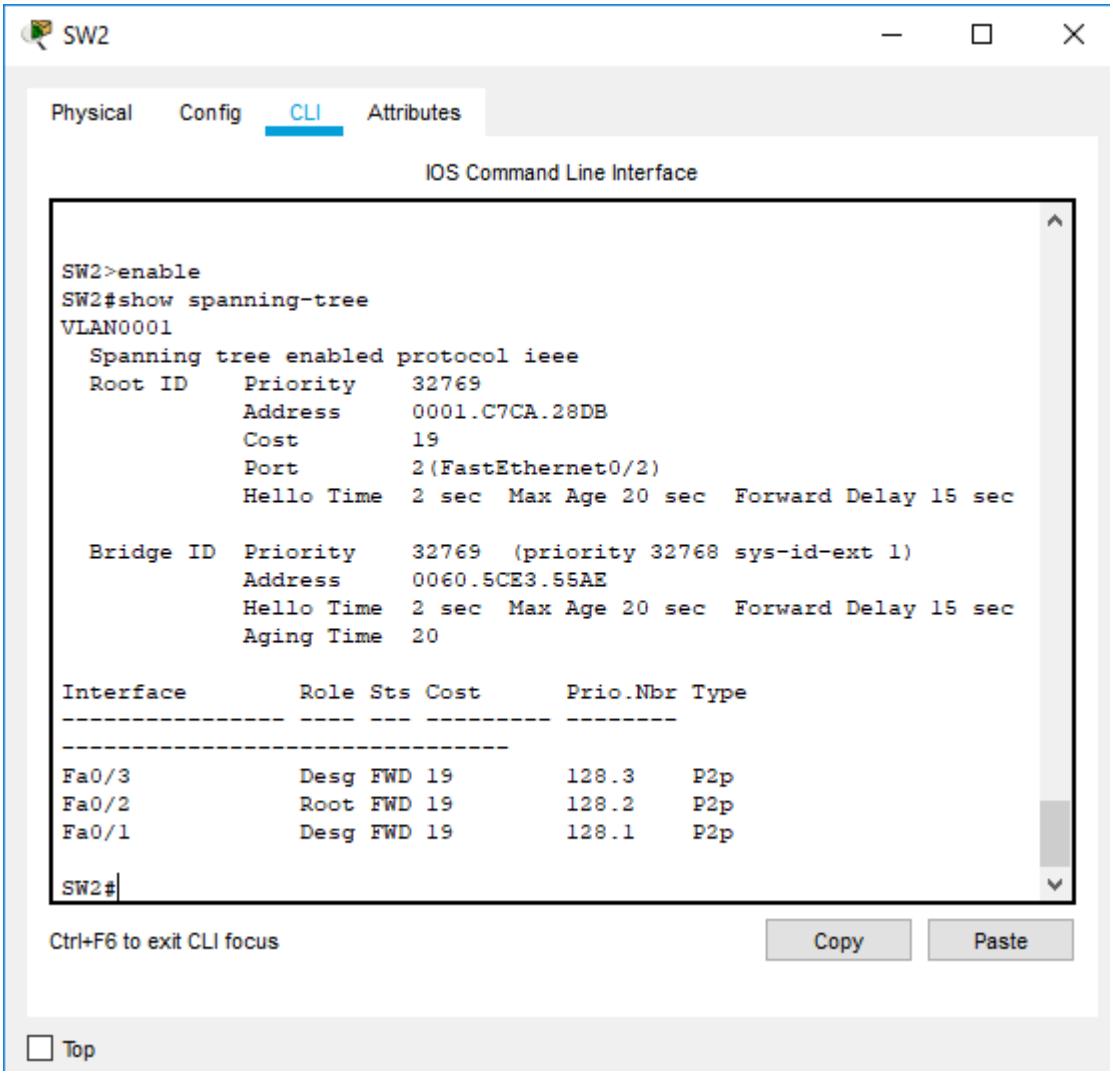
Tugas 9A : Status STP masing-masing switch

- SW1



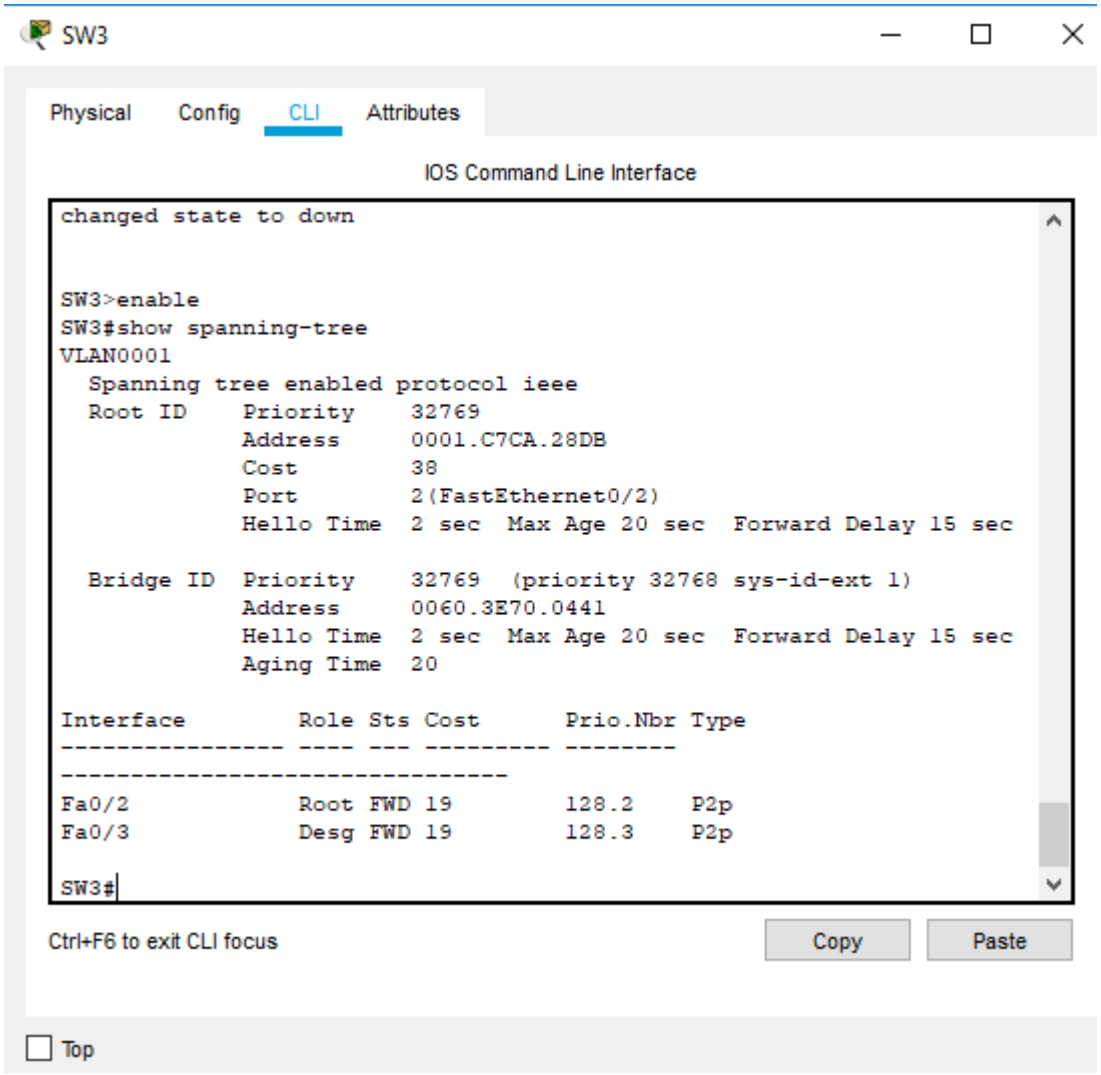
No	Variabel	Nilai
1	Root ID	32769
2	Priority	32769
3	MAC Address	0001.C7CA.28DB
4	Bridge ID	32769
5	Cost	19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

- SW2



No	Variabel	Nilai
1	Root ID	32769
2	Priority	32769
3	MAC Address	0001.C7CA.28DB
4	Bridge ID	32769
5	Cost	19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

SW3



No	Variabel	Nilai
1	Root ID	32769
2	Priority	32769
3	MAC Address	0001.C7CA.28DB
4	Bridge ID	32769
5	Cost	19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

Menentukan :

- Root bridge : SW1
- Designated bridge : SW3
- Root Port : SW2 (Fa0/2), SW3(Fa0/2)
- Designated Port : SW1 (Fa0/1, Fa0/3), SW2 (Fa0/3,Fa0/1), SW3 (Fa0/3)

Menentukan :

- Keadaan forwarding :
  - SW1 (Fa0/1, Fa0/3)
  - SW2 (Fa0/3, Fa0/2,Fa0/1)
  - SW3 (Fa0/2, Fa0/3)
- Keadaan blocking : tidak ada

Ping PC Leo ke PC Virgo