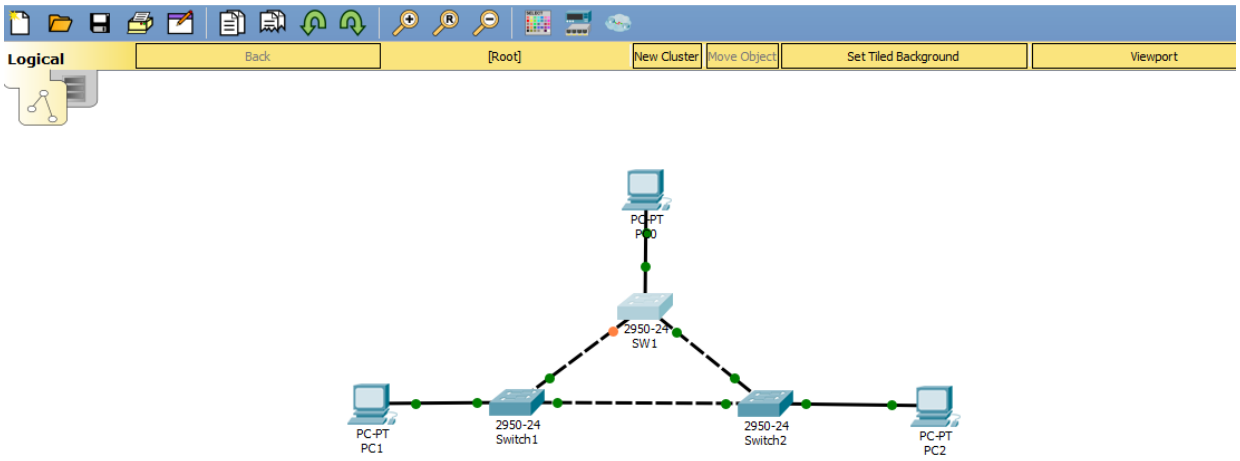
Nama : Suryo Pramuda Wicaksono

NIM : L200180053

Kelas : B

1. Kegiatan 1. Topologi 1

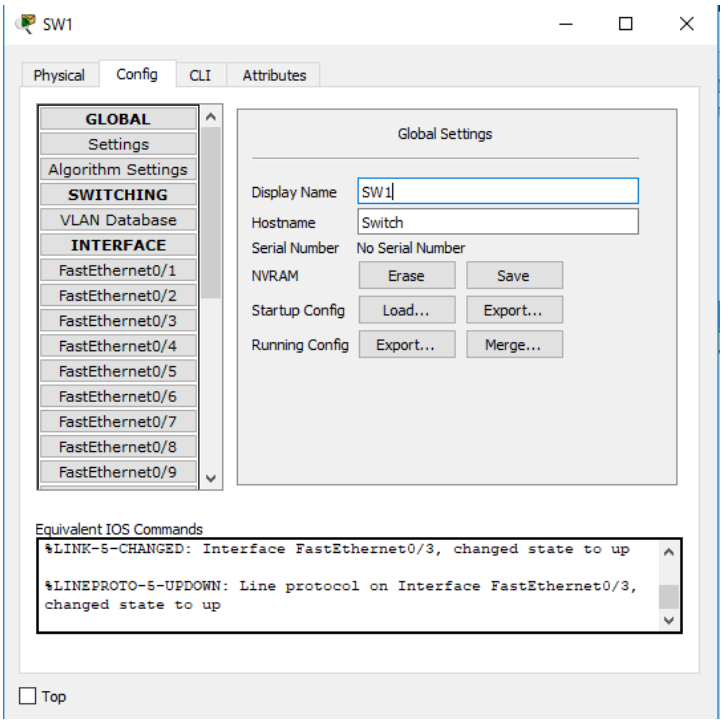
A. Menggunakan Packet Tracer buat topologi berikut ini dengan menggunakan switch Catalyst 2950

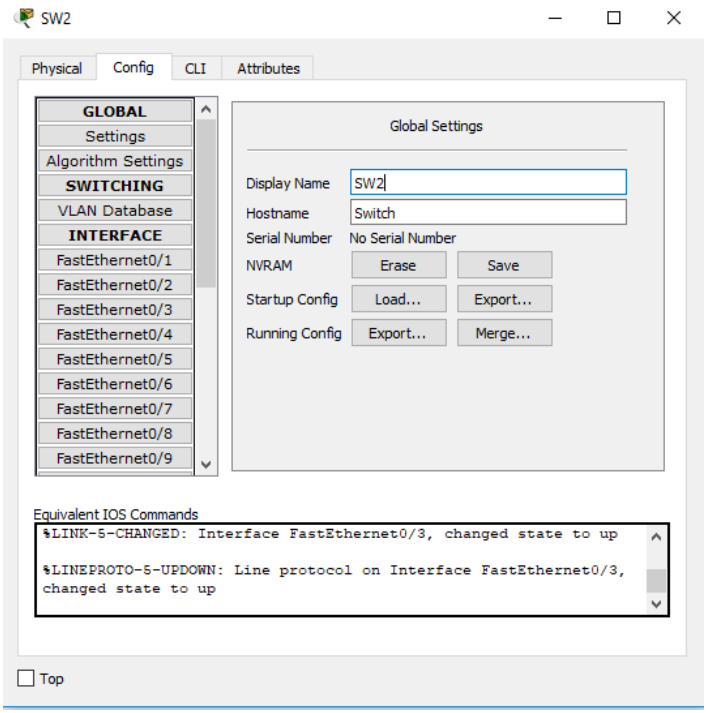


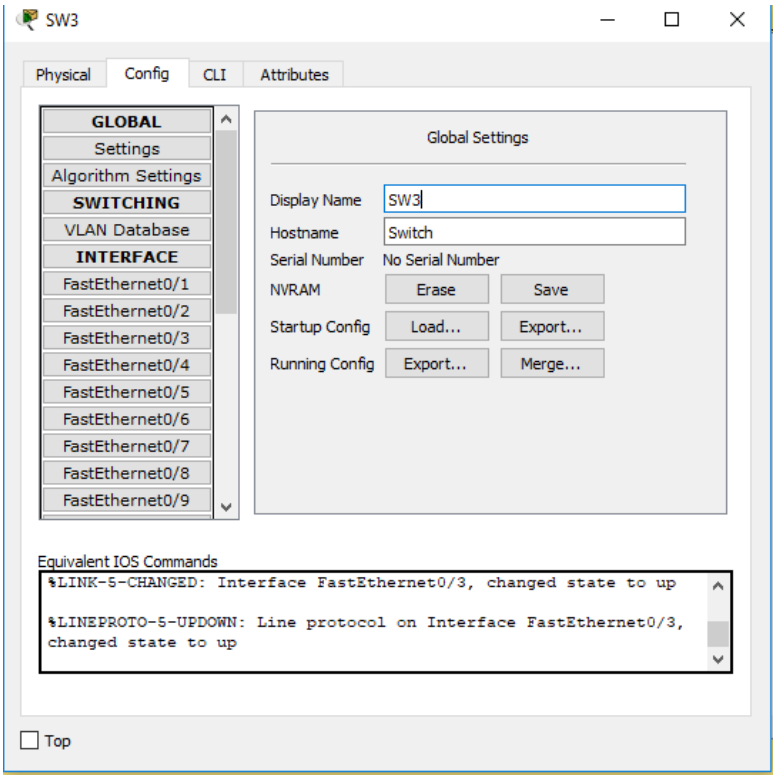
Tugas 1A : Tulis langkah pembuatan topologi

1. Masuk ke Aplikasi Cisco Packet Tracer
2. Pilih pada tab “End Devices” dan klik “PC”
3. Drag ke tempat pengerjaan dan lakukan sebanyak 3 kali
4. Pilih pada tab “Switches” dan klik Switch 2950-24
5. Drag ke tempat pengerjaan dan lakukan sebanyak 3 kali
6. Hubungkan dengan kabel otomatis

B. Memberi Nama Switch

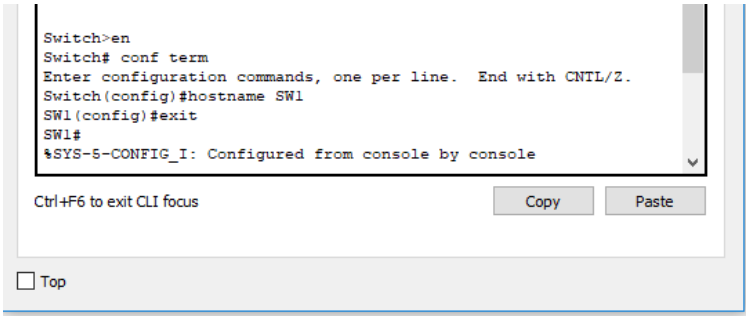

SW1
Physical
Config
CLI
Attributes
GLOBAL
Settings
Algorithm Settings
SWITCHING
VLAN Database
INTERFACE
FastEthernet0/1
FastEthernet0/2
FastEthernet0/3
FastEthernet0/4
FastEthernet0/5
FastEthernet0/6
FastEthernet0/7
FastEthernet0/8
FastEthernet0/9
Global Settings
Display Name
SW1
Hostname
Switch
Serial Number
No Serial Number
NVRAM
Erase
Save
Startup Config
Load...
Export...
Running Config
Export...
Merge...
Equivalent IOS Commands
%LINK-5-CHANGED: Interface FastEthernet0/3, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3, changed state to up
Top


SW2
Physical
Config
CLI
Attributes
GLOBAL
Settings
Algorithm Settings
SWITCHING
VLAN Database
INTERFACE
FastEthernet0/1
FastEthernet0/2
FastEthernet0/3
FastEthernet0/4
FastEthernet0/5
FastEthernet0/6
FastEthernet0/7
FastEthernet0/8
FastEthernet0/9
Global Settings
Display Name
SW2
Hostname
Switch
Serial Number
No Serial Number
NVRAM
Erase
Save
Startup Config
Load...
Export...
Running Config
Export...
Merge...
Equivalent IOS Commands
%LINK-5-CHANGED: Interface FastEthernet0/3, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3, changed state to up
Top

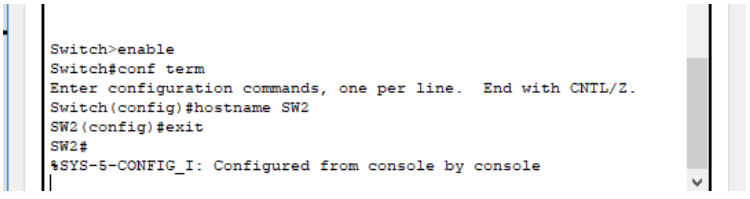


Tugas 2A : Tulis langkah pemberian nama switch mulai dari mode user

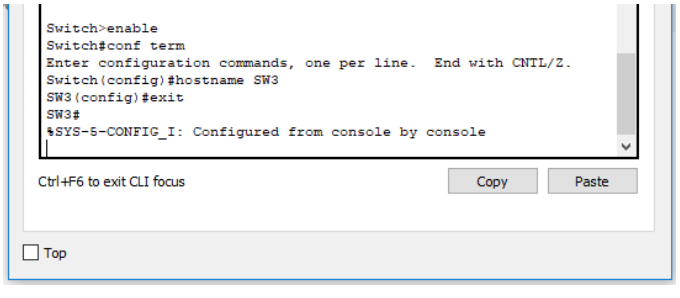
- SW 1



- SW2

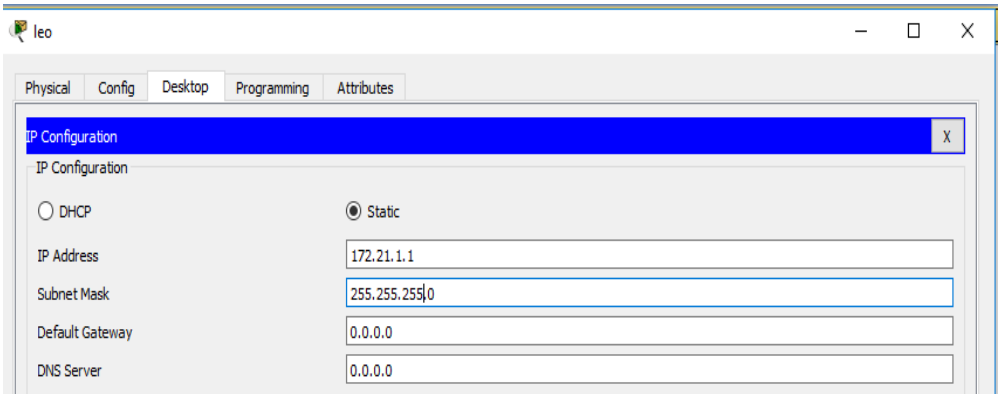


- SW3

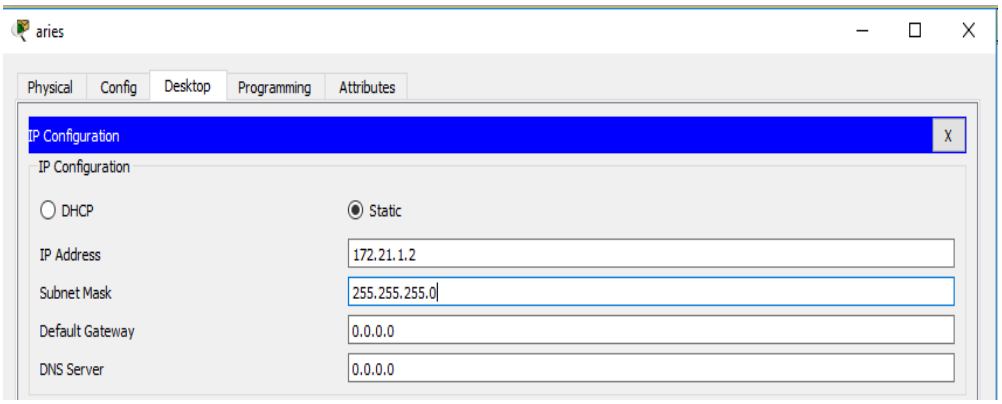


C. Konfigurasi masing-masing PC dengan alamat IP

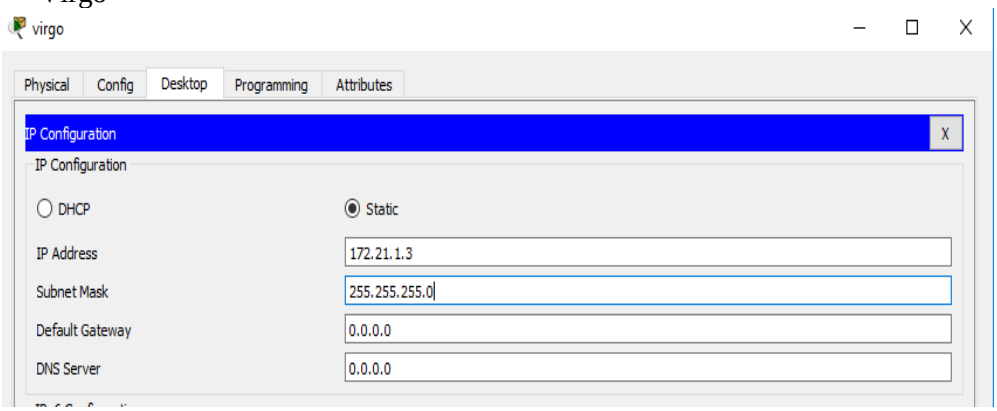
- Leo = 172.21.1.1/24



- Aries = 172.21.1.2/24



- Virgo

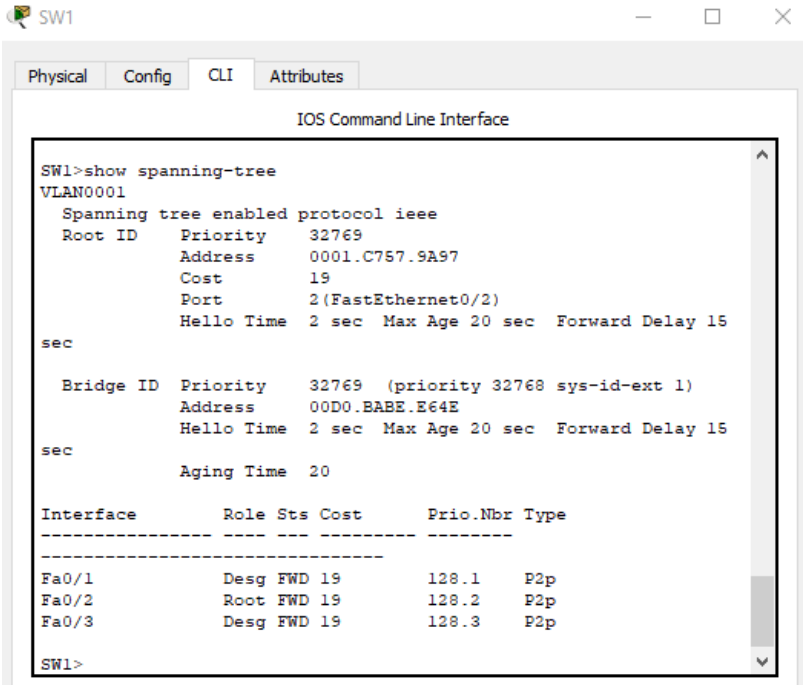


D. Pada mode user atau mode privileged, lihat status STP pada masing-masing switch. Langkah pengoperasian

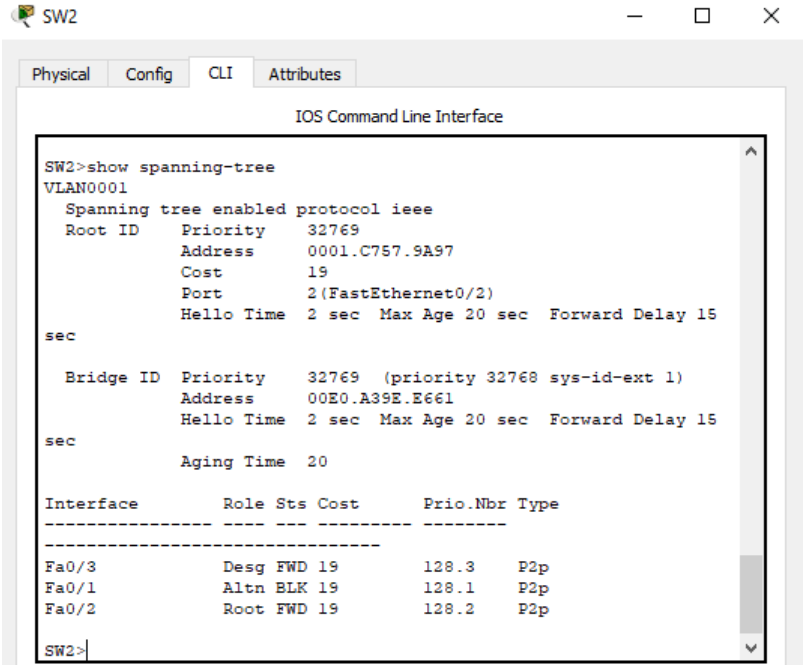
- Tekan enter
- Masuk mode privileged (optional)
- Ketik ***Show spanning-tree***

Tugas 4A : Pada kondisi default, capture masing-masing tampilan status STP switch

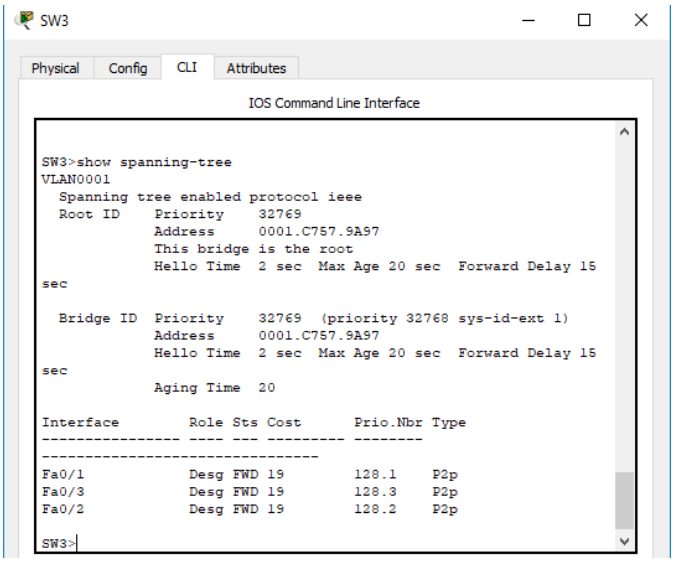
- SW 1



- SW 2



- SW 3



Tugas 4B : Untuk tiap-tiap switch, isikan tabel beri

No	Variabel	Nilai
1	Root ID	32769.0001.C757.9A97
2	Priority	32769
3	MAC Address	0001.C575.9A97
4	Bridge ID	32769.0001.C757.9A97
5	Cost(0/1;0;2;0/3)	-
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

No	Variabel	Nilai
1	Root ID	32769.0001.C757.9A97
2	Priority	32769
3	MAC Address	00D0.BABE.E64E
4	Bridge ID	32769.00D0.BABE.E64E
5	Cost(0/1;0;2;0/3)	19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

No	Variabel	Nilai
1	Root ID	32769.0001.C757.9A97
2	Priority	32769
3	MAC Address	00E0.A39E.E661
4	Bridge ID	32769.00E0.A39E.E661
5	Cost(0/1;0;2;0/3)	19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

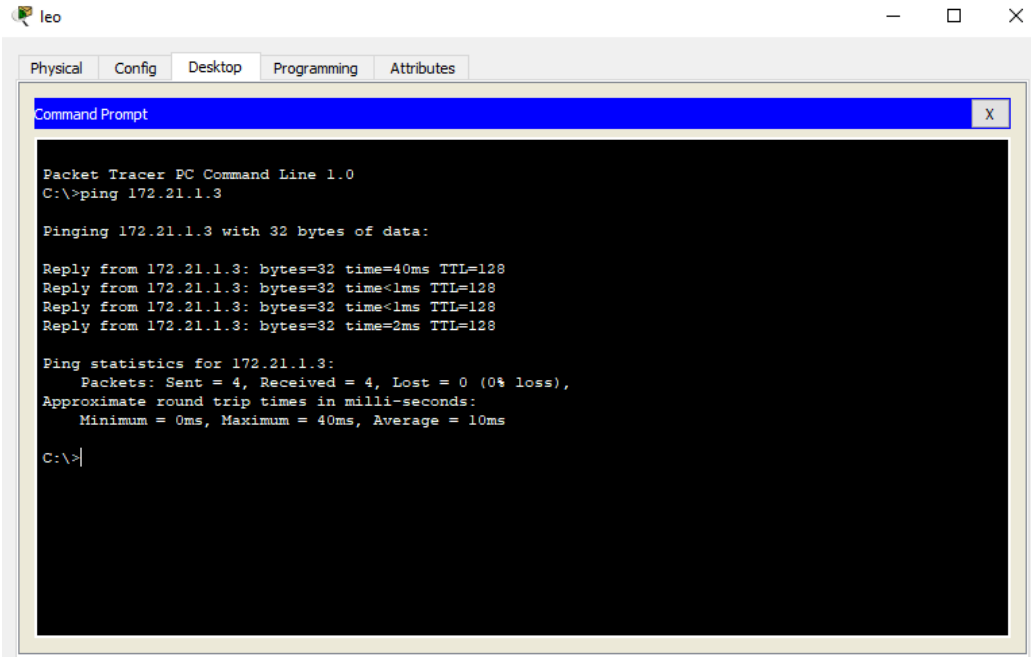
Tugas 4C : Pada kondisi default tersebut, switch dan port mana saja yang :

a. Menjadi root bridge : SW1
b. Menjadi designated bridge : SW2
c. Menjadi root port : SW1 Fa 0/2, SW2 Fa 0/2
d. Menjadi designated port : SW1 Fa 0/1 Fa 0/3, SW2 Fa 0/3, SW3 Fa0/3, SW3 Fa0/1 Fa0/2 Fa0/3

Tugas 4D : Pada kondisi default tersebut, dan port mana saja yang :

- Berada pada keadaan forwarding: SW1 Fa 0/1 Fa0/2 Fa0/3, SW2 Fa0/2 Fa0/3, SW3 Fa0/1 Fa0/2 Fa0/3
- Berada pada keadaan blocking: SW2 Fa0/1

E. Dari PC Leo lakukan ping ke PC Virgo



Tugas 5A : Tulis langkah untuk melakukan perintah ping

- ✓ Klik pada PC Leo
- ✓ Lalu pilih tab dekstop
- ✓ Kemudian pilih terminal (Command Prompt)
- ✓ Tuliskan ping 172.21.1.3

F. Simpan konfigurasi jaringan dengan nama lab2.nwc

Tugas 6A : Tulis langkah untuk menyimpan konfigurasi jaringan

a. Ketik “Write” pada masing-masing CLI switches

- SW 1

- SW 2

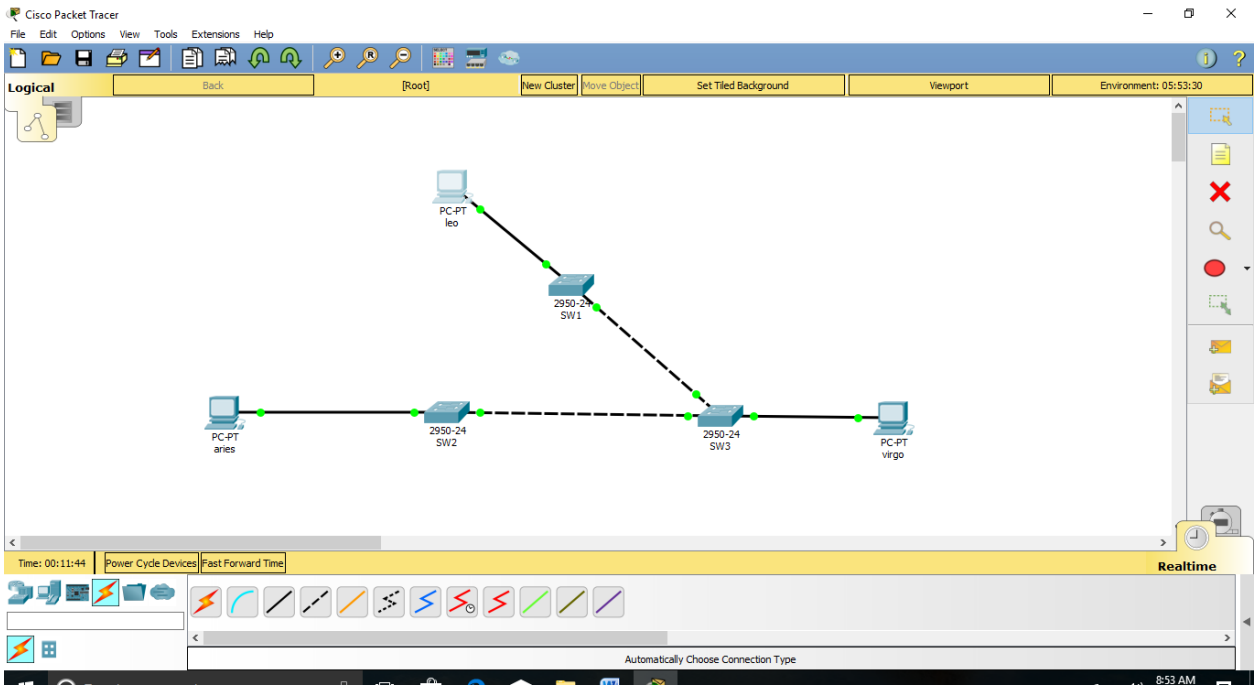
```
SW2>enable
SW2#write
Building configuration...
[OK]
SW2#
```

- SW3

```
SW3>enable
SW3#write
Building configuration...
[OK]
SW3#
```

2.Kegiatan 2. Topologi 2

A. Menggunakan packet tracer ubah topologi menjadi topologi berikut ini



B. Pada mode user atau privileged , lihat status STP pada masing-masing switch.

Langkah pengoperasian :

- Tekan enter
- Masuk mode privileged (optional)
- Ketik ***Show spanning-tree***

Tugas 9A : Pada kondisi default, capture masing-masing tampilan status STP switch

SW1

Physical | Config | CLI | Attributes

IOS Command Line Interface

```
changed state to up


Switch>show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID     Priority    32769
              Address     0002.17CE.ABE3
              This bridge is the root
              Hello Time  2 sec  Max Age 20 sec  Forward Delay 15
sec

  Bridge ID   Priority    32769  (priority 32768 sys-id-ext 1)
              Address     0002.17CE.ABE3
              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
Fa0/1            Desg FWD 19        128.1    P2p

Switch>
```

Ctrl+F6 to exit CLI focus

Copy | Paste

SW2

Physical | Config | CLI | Attributes

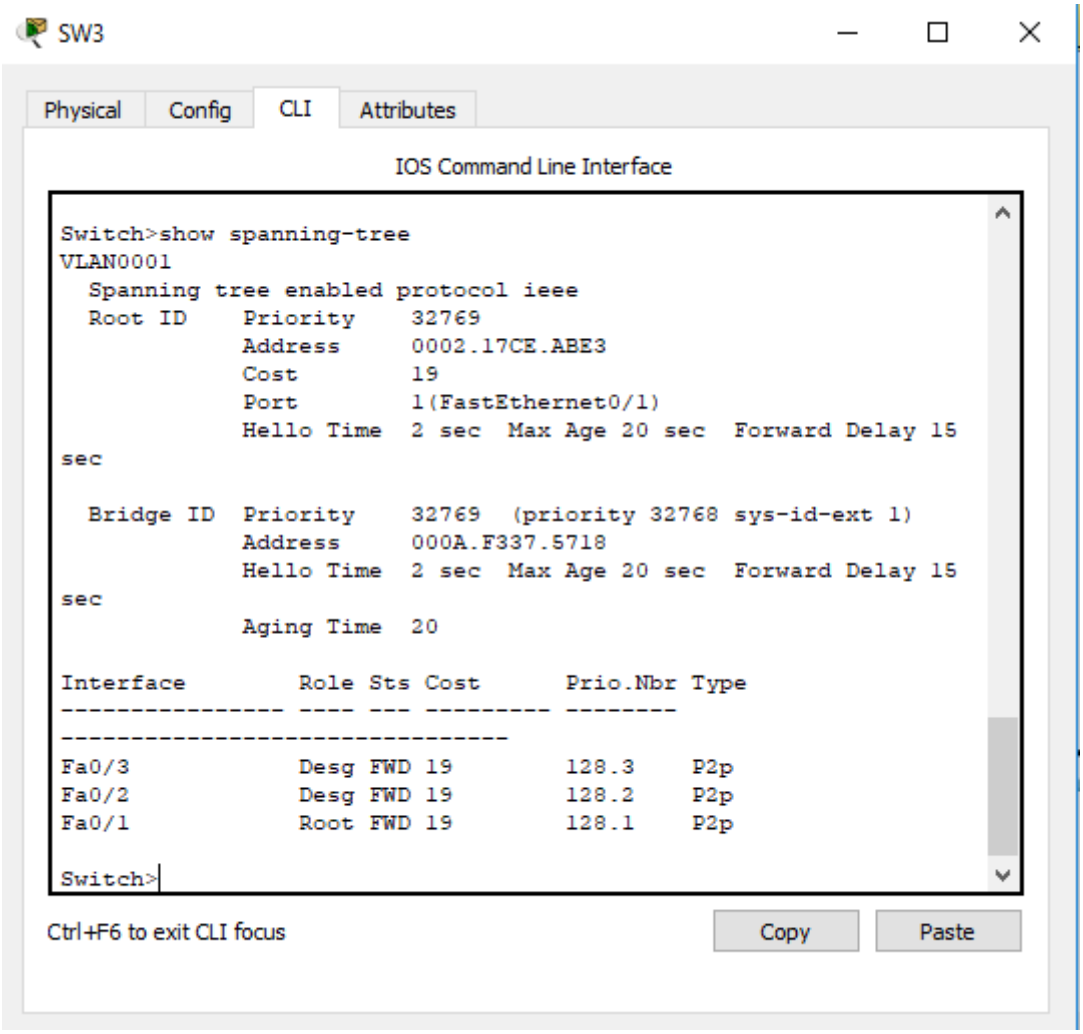
IOS Command Line Interface

```
Switch>show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID     Priority    32769
              Address     0002.17CE.ABE3
              Cost        38
              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     0090.2BA3.4BCE
              Hello Time  2 sec  Max Age 20 sec  Forward Delay 15
sec
              Aging Time  20

Interface        Role Sts Cost      Prio.Nbr Type
---------------- ---- --- --------- --------
--------------------------------
Fa0/1            Root FWD 19        128.1    P2p
Fa0/2            Desg FWD 19        128.2    P2p

Switch>
```

Ctrl+F6 to exit CLI focus

Copy | Paste

Top



Tugas 9A : Untuk tiap-tiap switch, isikan tabel berikut

- SW1

No	Variabel	Nilai
1	Root ID	32769.0002.17CE.ABE3
2	Priority	32769
3	MAC Address	0002.17CE.ABE3
4	Bridge ID	32769.0002.17CE.ABE3
5	Cost(0/1;0;2;0/3)	-
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

No	Variabel	Nilai
1	Root ID	32769.0002.17CE.ABE3
2	Priority	32769
3	MAC Address	0090.2AB3.4BCE
4	Bridge ID	32769.0090.2AB3.4BCE
5	Cost(0/1;0;2;0/3)	38
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

No	Variabel	Nilai
1	Root ID	32769.0002.17CE.ABE3
2	Priority	32769
3	MAC Address	000A.F337.5718
4	Bridge ID	32769.000A.F337.5178
5	Cost(0/1;0;2;0/3)	19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

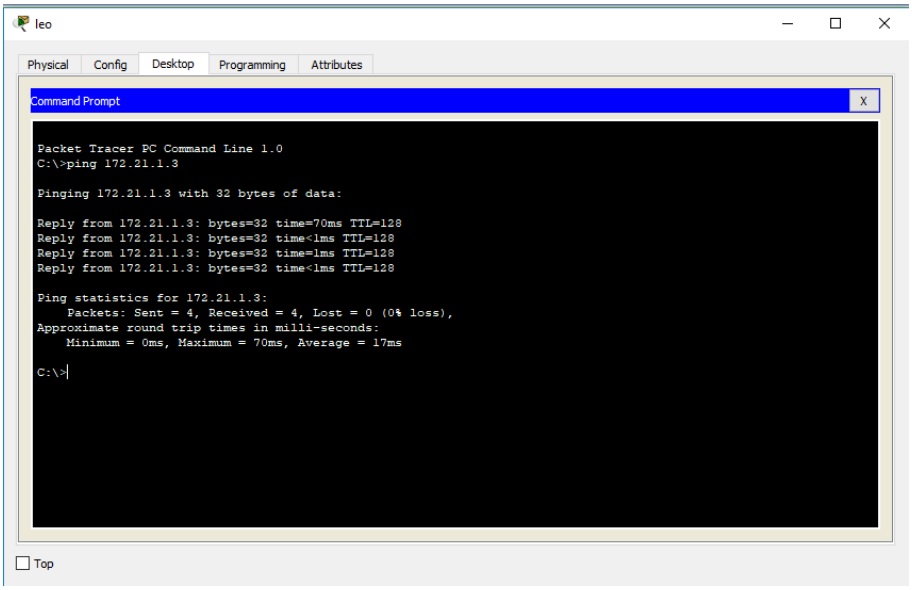
Tugas 9A : Pada kondisi default tersebut, switch dan port mana saja yang :

a. Menjadi root bridge : SW2
b. Menjadi designated bridge : SW3
c. Menjadi root port : SW2 Fa0/1,SW3 Fa0/1
d. Menjadi designated port : SW1 Fa 0/1 Fa0/2,SW2 Fa0/2,SW3 Fa0/2 Fa0/3

Tugas 4D : Pada kondisi default tersebut, dan port mana saja yang :

e. Berada pada keadaan forwarding: SW1 Fa 0/1 Fa0/2,SW2 Fa0/1 Fa0/2,SW3 Fa0/1 Fa0/2 Fa0/3
f. Berada pada keadaan blocking:-

C. Dari PC Leo lakukan ping ke PC virgo



Tugas 5A : Tulis langkah untuk melakukan perintah ping

✓ Klik pada PC Leo
✓ Lalu pilih tab dekstop
✓ Kemudian pilih terminal (Command Prompt)
✓ Tuliskan ping 172.21.1.3