

**Nama : Aulia Anis R.**

**NIM : L200180041**

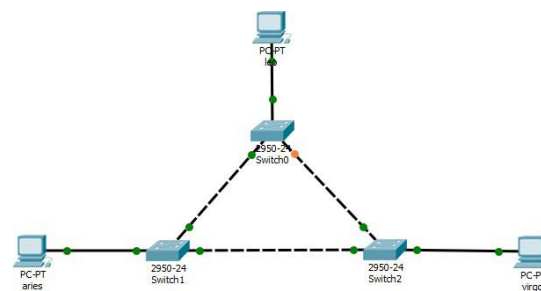
**Kelas : B**

## **MODUL 6**

### **SPANNING TREE PROTOCOL**

#### **Kegiatan 1. Topologi 1**

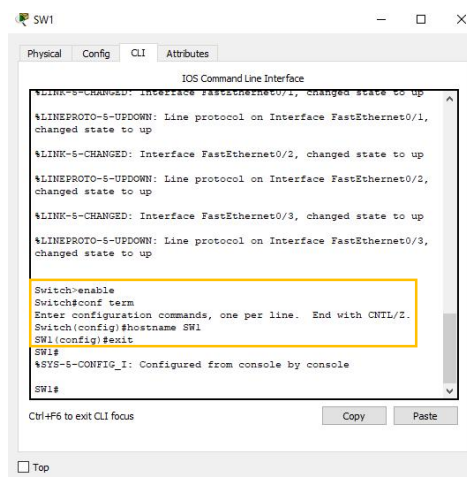
##### **1. Rancangan Jaringan**



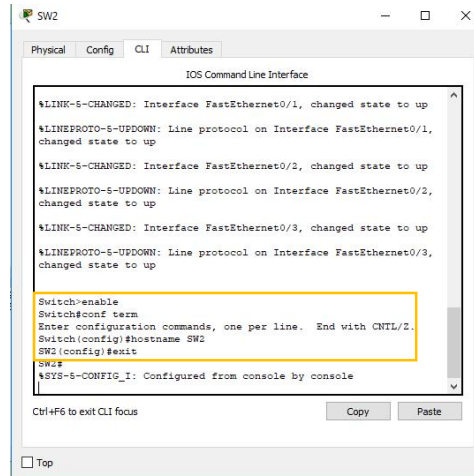
Drag 3 switch catalyst 2950 yang diambil dari network devices dan drop ke lembar kerja. Lalu drag 3 PC yang di ambil di end devices dan drop ke lembar kerja. Lalu hubungkan switch dengan switch dan switch dengan PC dengan connections.

##### **2. Pemberian nama switch dari mode user**

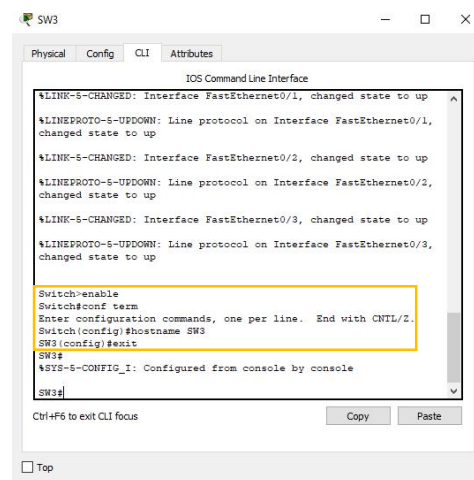
**SW1**



SW2



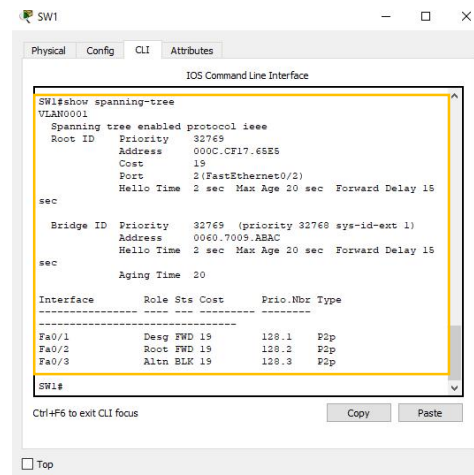
SW3



Pemberian nama masing-masing switch dengan SW1, SW2, dan SW3 dengan cara ketik **enable** lalu ketik **conf term** lalu ketik **hostname SW1** (sesuai dengan nama switch nya)

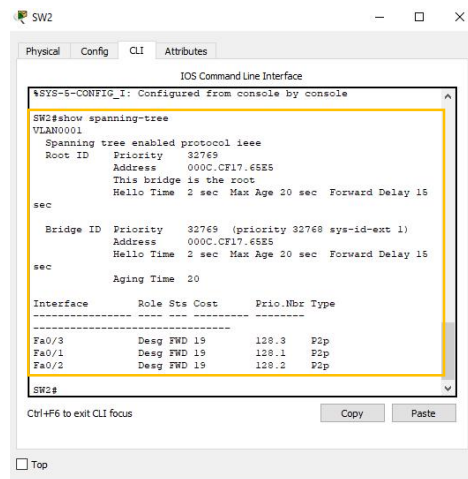
### 3. Spanning-tree pada masing-masing switch

SW1



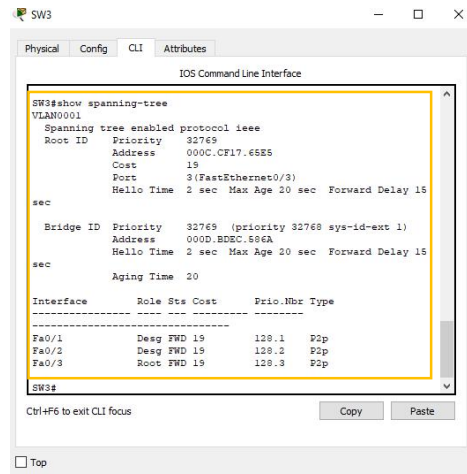
No	Variabel	Nilai
1	Root ID	32769
2	Priority	-
3	MAC Address	0060.7009.ABAC
4	Bridge ID	32769
5	Cost(0/1;0/2;0/3)	19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

SW2



No	Variabel	Nilai
1	Root ID	32769
2	Priority	-
3	MAC Address	000C.CF17.65E5
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

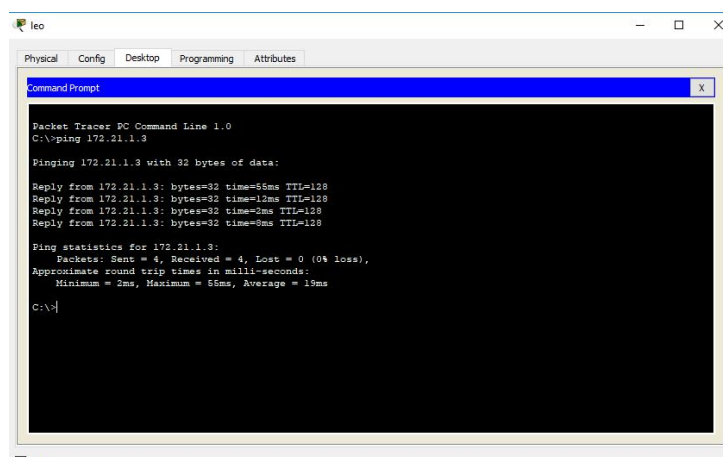
SW3



No	Variabel	Nilai
1	Root ID	32769
2	Priority	-
3	MAC Address	000D.BDEC.586A
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

- Root bridge : SW2
- Designated bridge : SW3
- Root port : SW1(0/2), SW3(0/3)
- Designated port : SW3(0/3)
- Port keadaan forwarding : SW1(0/1, 0/2), SW2(0/1, 0/2, 0/3), dan SW3(0/1, 0/2, 0/3)
- Port keadaan blocking : SW1(0/3)

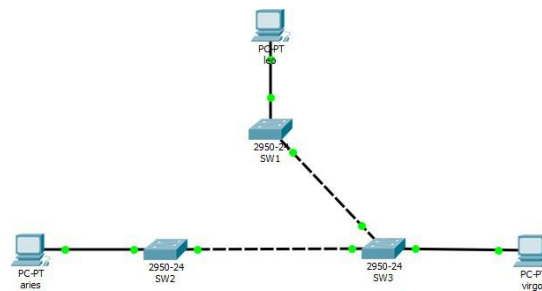
4. Lakukan ping dari PC leo ke PC virgo



Tap 2 kali pada PC leo lalu pilih dekstop lalu pilih command prompt. Ketikkan **ping 172.21.1.3** lalu enter dan akan keluar hasilnya. Bahwa PC leo dan PC virgo saling berhubungan.

## Kegiatan 2. Topologi 2

### 1. Rancangan Jaringan



### 2. Spanning-tree pada masing-masing switch

SW1

```

SW1#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     000C.CF17.6585
             Cost        38
             Port        3/Ethernet0/3
             Hello Time   2 sec Max Age 20 sec Forward Delay 15 sec

  Bridge ID  Priority    32769 (priority 32769 sys-id-ext 1)
             Address     0060.7009.ABAC
             Hello Time   2 sec Max Age 20 sec Forward Delay 15 sec
             Aging Time   20

Interface    Role Sts Cost      Prio.Nbr Type
-----
Fa0/3        Root FWD 16        128.3    Dtp
Fa0/24       Desg FWD 16        128.1    Dtp
  
```

No	Variabel	Nilai
1	Root ID	32769
2	Priority	-
3	MAC Address	0060.7009.ABAC
4	Bridge ID	32769
5	Cost(0/1;0/2;0/3)	38
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

## SW2

```

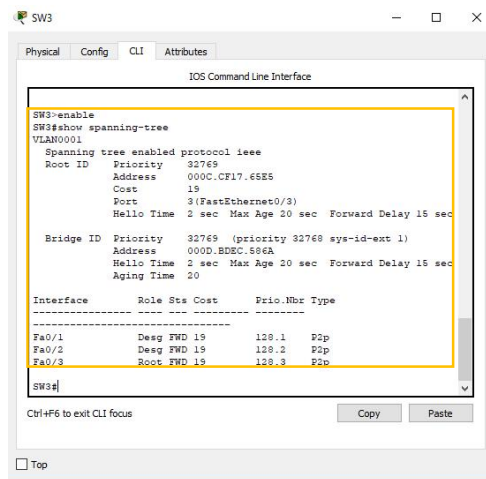
SW2>enable
SW2#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     000C.CF17.65E5
             This bridge is the root
             Hello Time 2 sec  Max Age 20 sec  Forward Delay 15 sec

  Bridge ID  Priority    32769  (priority 32768 sys-id-ext 1)
             Address     000C.CF17.65E5
             Hello Time 2 sec  Max Age 20 sec  Forward Delay 15 sec
             Aging Time 20

Interface                Role Sts Cost      Prio.Nbr Type
-----
Fa0/1                    Desg FWD 19       128.1    P2p
Fa0/3                    Desg FWD 19       128.3    P2p
  
```

No	Variabel	Nilai
1	Root ID	32769
2	Priority	-
3	MAC Address	000C.CF17.65E5
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

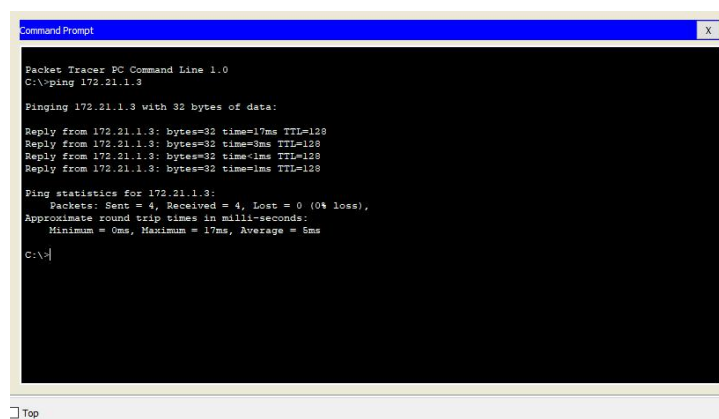
## SW3



No	Variabel	Nilai
1	Root ID	32769
2	Priority	-
3	MAC Address	000D.BDEC.586A
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

- Root bridge : SW2
- Designated bridge : SW3
- Root port : SW1(0/3), SW3(0/3)
- Designated port : SW3(0/3)
- Port keadaan forwarding : SW1(0/1, 0/3), SW2(0/1, 0/3), dan SW3(0/1, 0/2, 0/3)
- Port keadaan blocking : -

### 3. Lakukan ping dari PC leo ke PC virgo





Tap 2 kali pada PC leo lalu pilih dekstop lalu pilih command prompt. Ketikkan **ping 172.21.1.3** lalu enter dan akan keluar hasilnya. Bahwa PC leo dan PC virgo saling berhubungan.