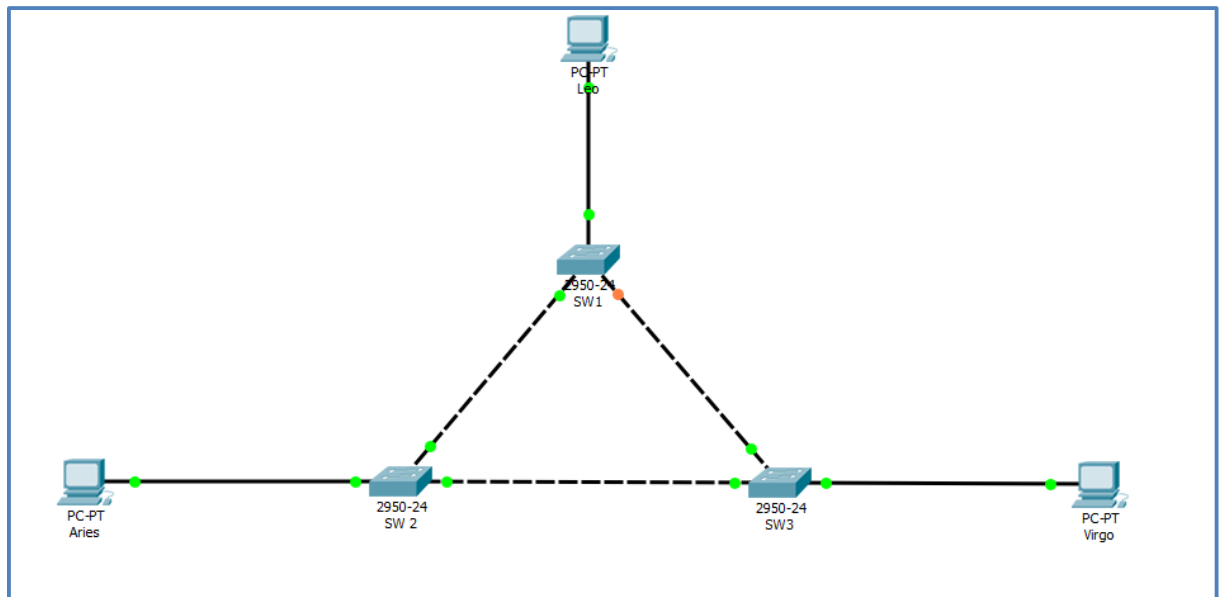


## LAPORAN PRAKTIKUM JARKOM MODUL VI SPANNING TREE PROTOCOL

---

### Kegiatan1.Topologi 1

1. Membuat topologi dengan packet tracer,dan beri nama masing-masing switch dengan SW 1, SW 2, SW 3 seperti gambar dibawah ini.



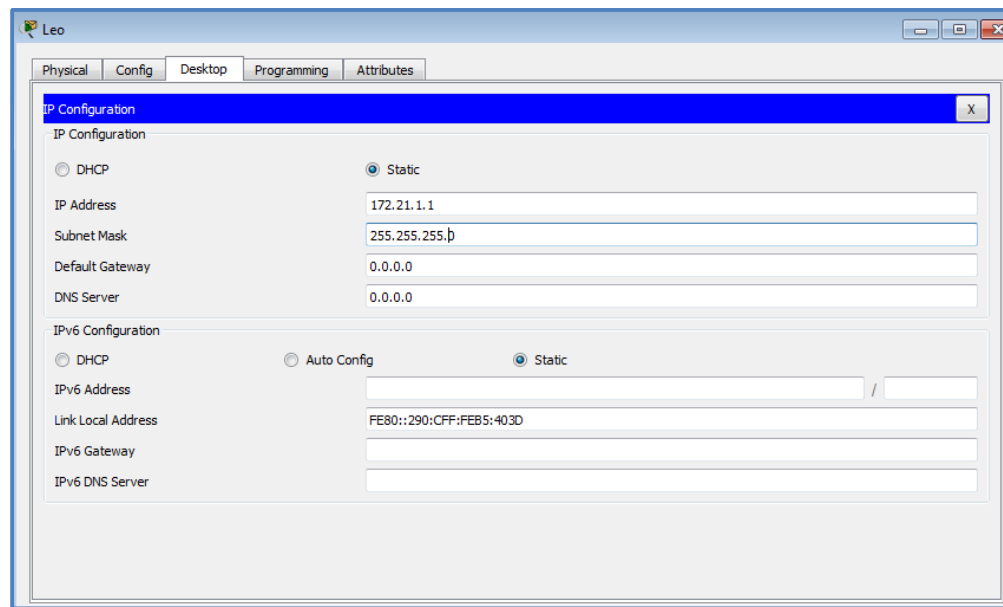
2. Konfigurasi masing-masing PC dengan alamat IP :

a. Leo = 172.21.1.1/24

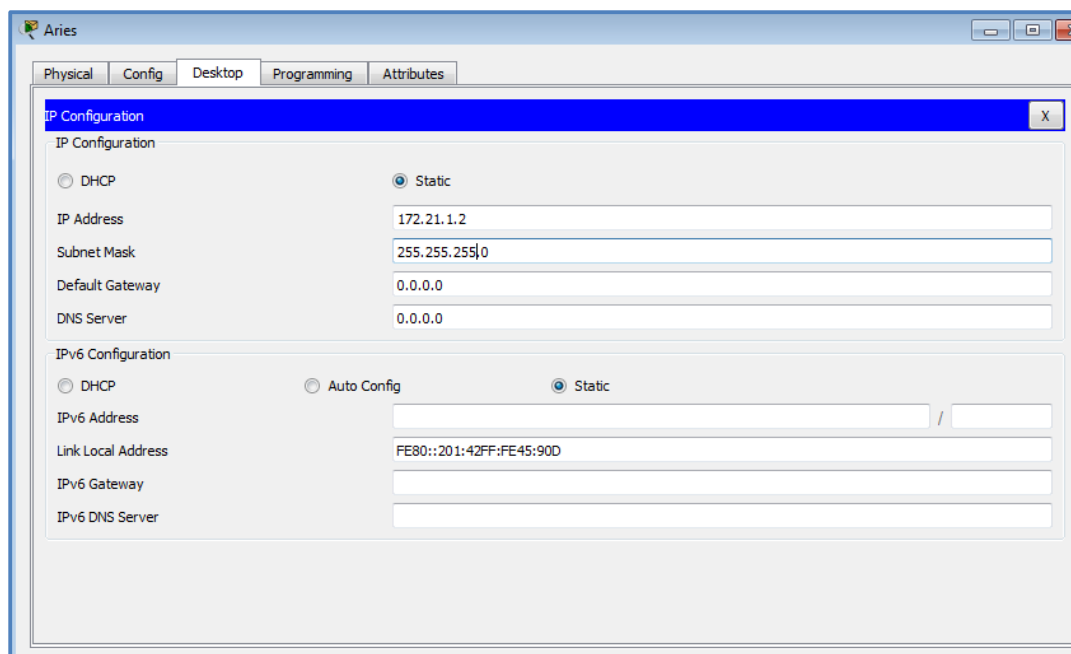
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b. Aries = 172.21.1.2/24

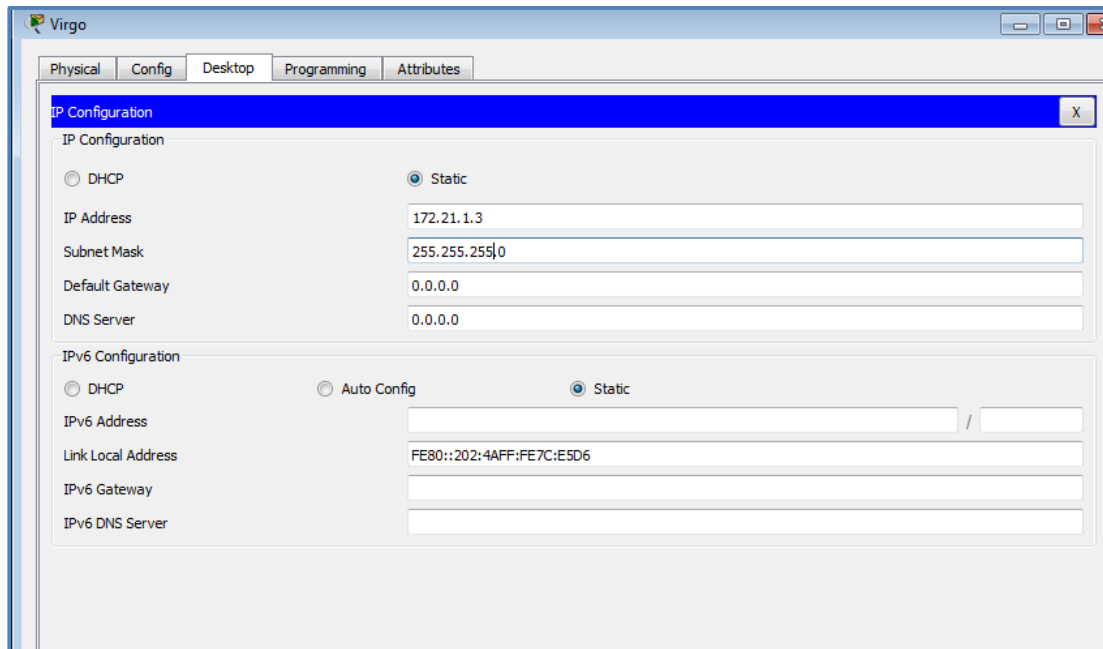


c. Virgo = 172.21.1.3/24

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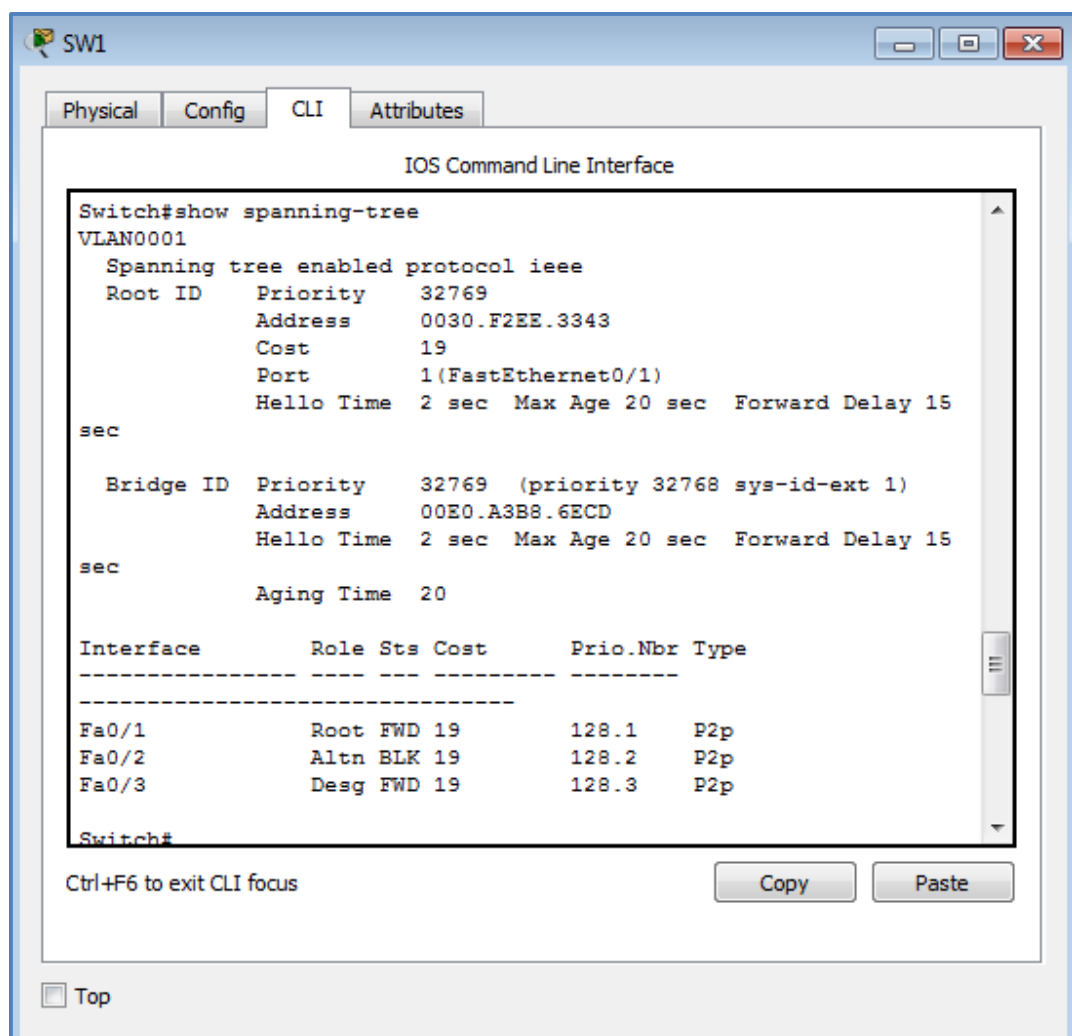
3. Melihat status STP pada masing-masing switch.

a. SW 1

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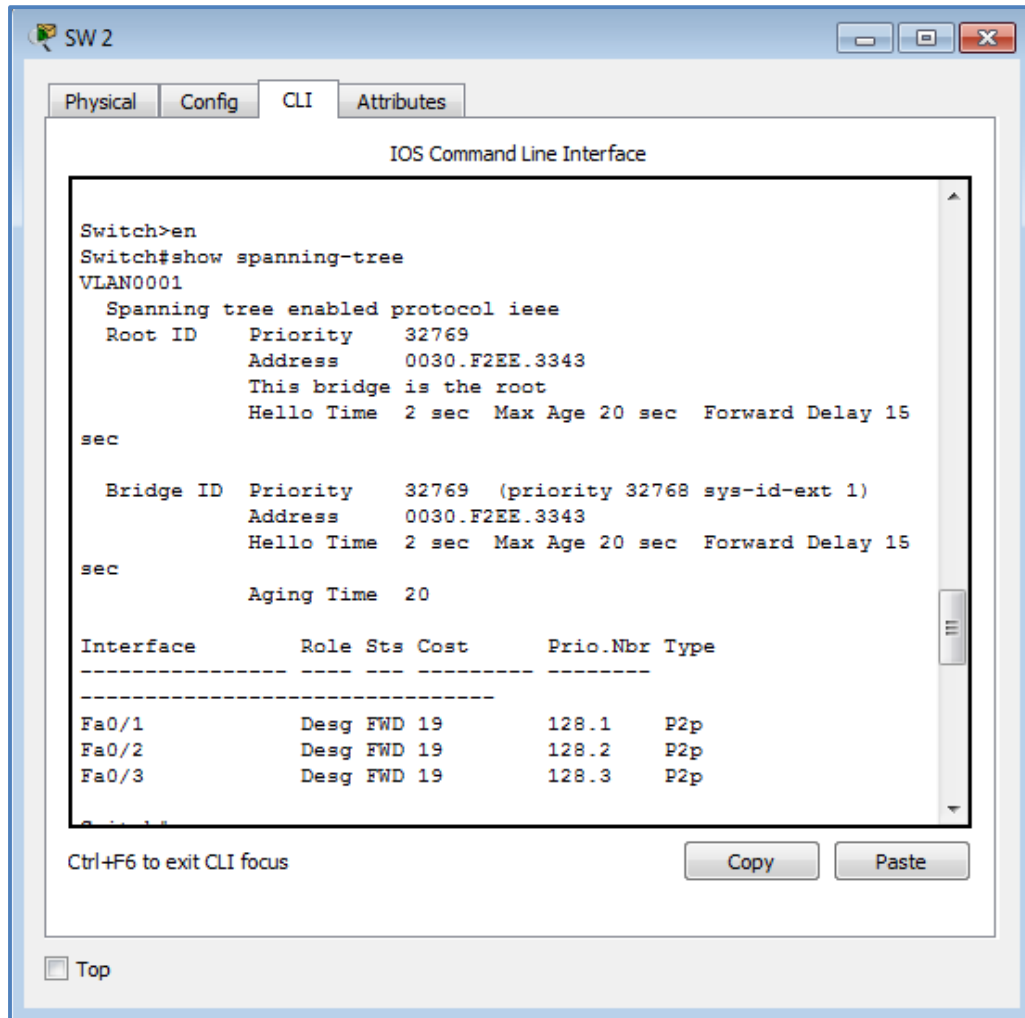


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b. SW 2

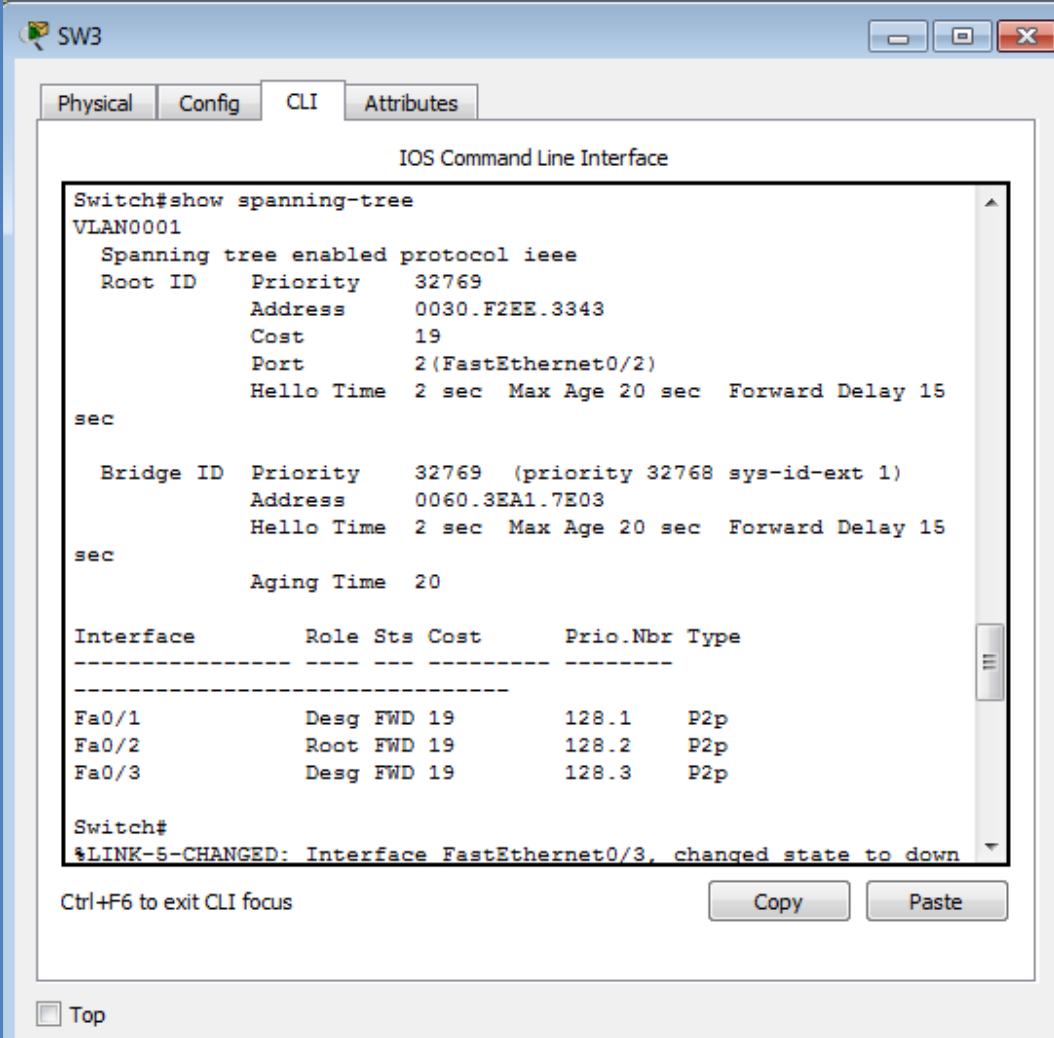


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c. SW 3



The screenshot shows a network switch configuration window titled "SW3" with tabs for Physical, Config, CLI, and Attributes. The CLI tab is active, displaying the "IOS Command Line Interface". The command "Switch#show spanning-tree" has been executed, showing the configuration for VLAN0001. The output indicates that spanning tree is enabled with the IEEE protocol. The root bridge has ID 32769, priority 32769, address 0030.F2EE.3343, and cost 19. The bridge ID is 32769 (priority 32768 sys-id-ext 1) with address 0060.3EA1.7E03. The aging time is 20 seconds. A table shows the status of interfaces Fa0/1, Fa0/2, and Fa0/3. Fa0/1 is Designated Forwarding (Desg FWD) with priority 128.1. Fa0/2 is Root Forwarding (Root FWD) with priority 128.2. Fa0/3 is Designated Forwarding (Desg FWD) with priority 128.3. A message at the bottom indicates that the link state for Fa0/3 has changed to down.

```
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
    Root ID    Priority    32769
              Address     0030.F2EE.3343
              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     0060.3EA1.7E03
              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
Fa0/2          Root FWD 19        128.2    P2p
Fa0/3          Desg FWD 19        128.3    P2p

Switch#
%LINK-5-CHANGED: Interface FastEthernet0/3, changed state to down
```

Ctrl+F6 to exit CLI focus

Copy Paste

☐ Top

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**SW1**

No	Variabel	Nilai
1	Root ID	
2	Priority	32769
3	MAC Address	0030.F2EE.3343
4	Bridge ID	
5	Cost(0/1;0/2;0/3)	19;19;19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15

**SW2**

No	Variabel	Nilai
1	Root ID	
2	Priority	32769
3	MAC Address	0030.F2EE.3343
4	Bridge ID	
5	Cost(0/1;0/2;0/3)	19;19;19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15

**SW3**

No	Variabel	Nilai
1	Root ID	
2	Priority	32769
3	MAC Address	0030.F2EE.3343
4	Bridge ID	
5	Cost(0/1;0/2;0/3)	19;19;19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15

Pada kondisi default tersebut mana saja.

- Menjadi root bridge : SW2
- Menjadi designated bridge : SW2
- Menjadi root port : SW1,SW3
- Menjadi designated port : SW1,SW2,SW3

Pada kondisi default tersebut,dan port mana saja yang.

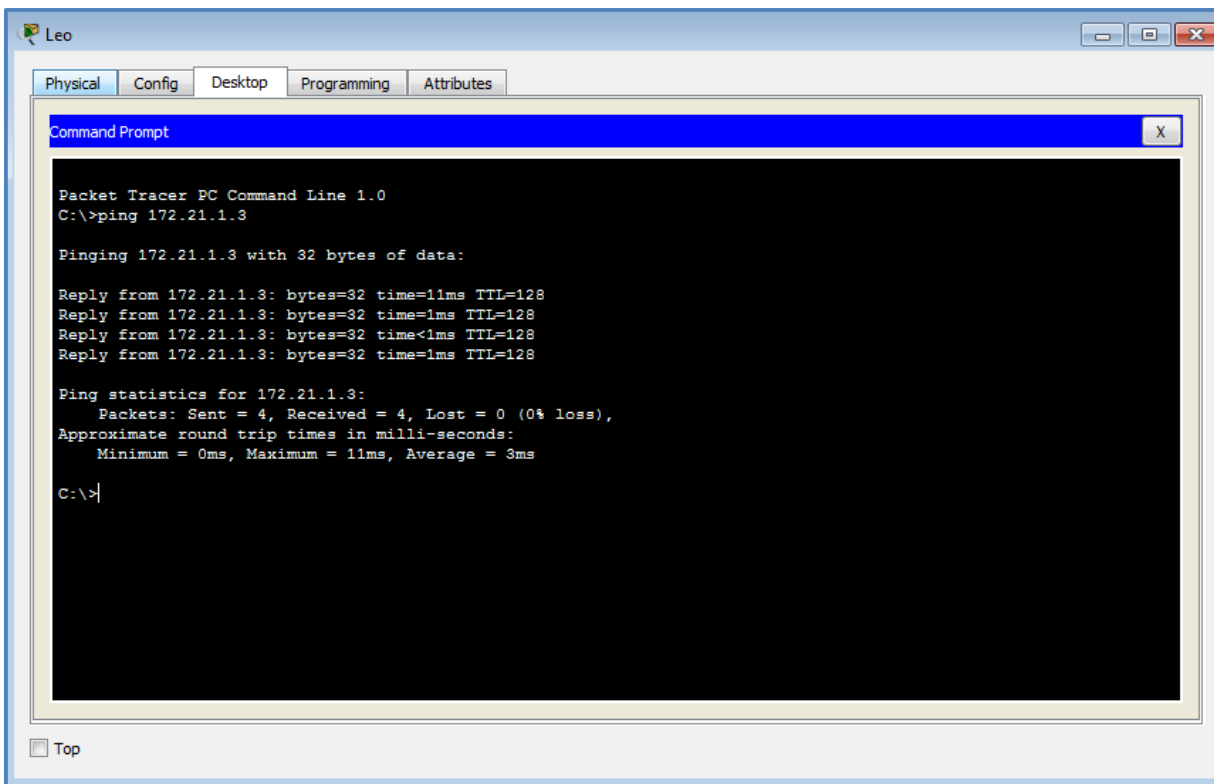
- Berada pada keadaan forwarding :SW2 dan SW3
- Berada pada keadaan blocking : SW1

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4. Melakukan ping dari PC Leo ke PC Virgo



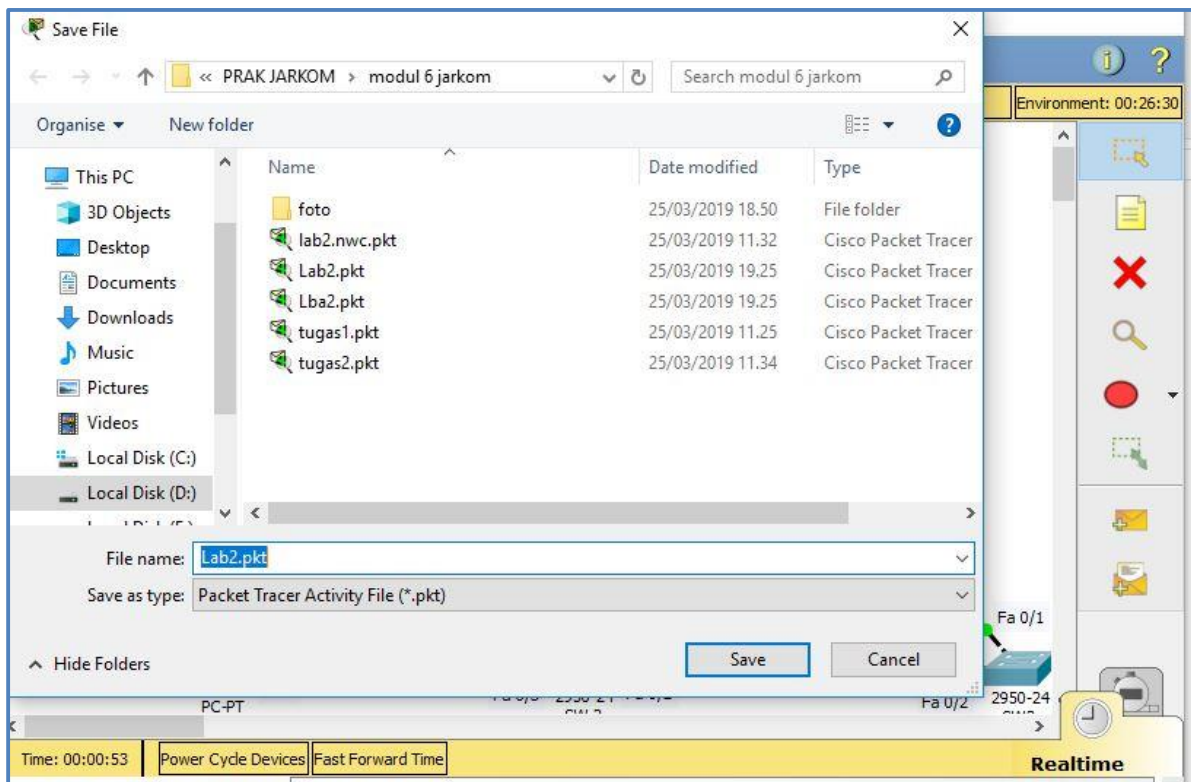
5. Simpan konfigurasi jaringan dengan nama lab2.pkt



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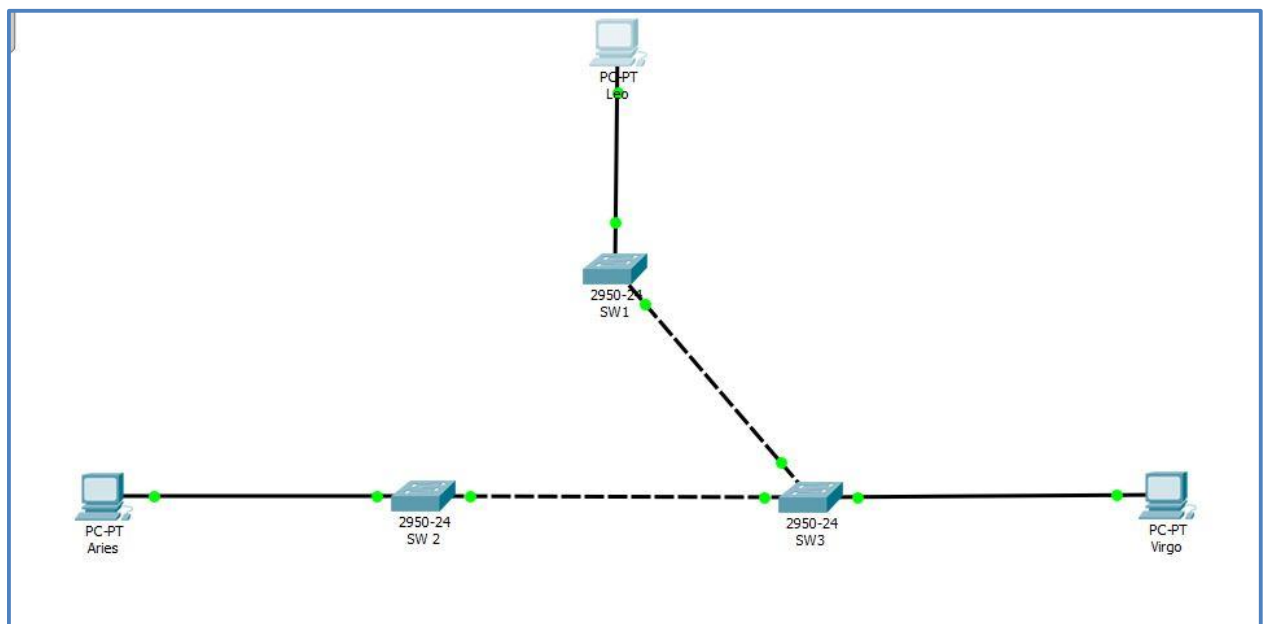
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## Kegiatan2. Topologi 2

1. Menggunakan packet tracer ubah topologi menjadi seperti topologi berikut ini.



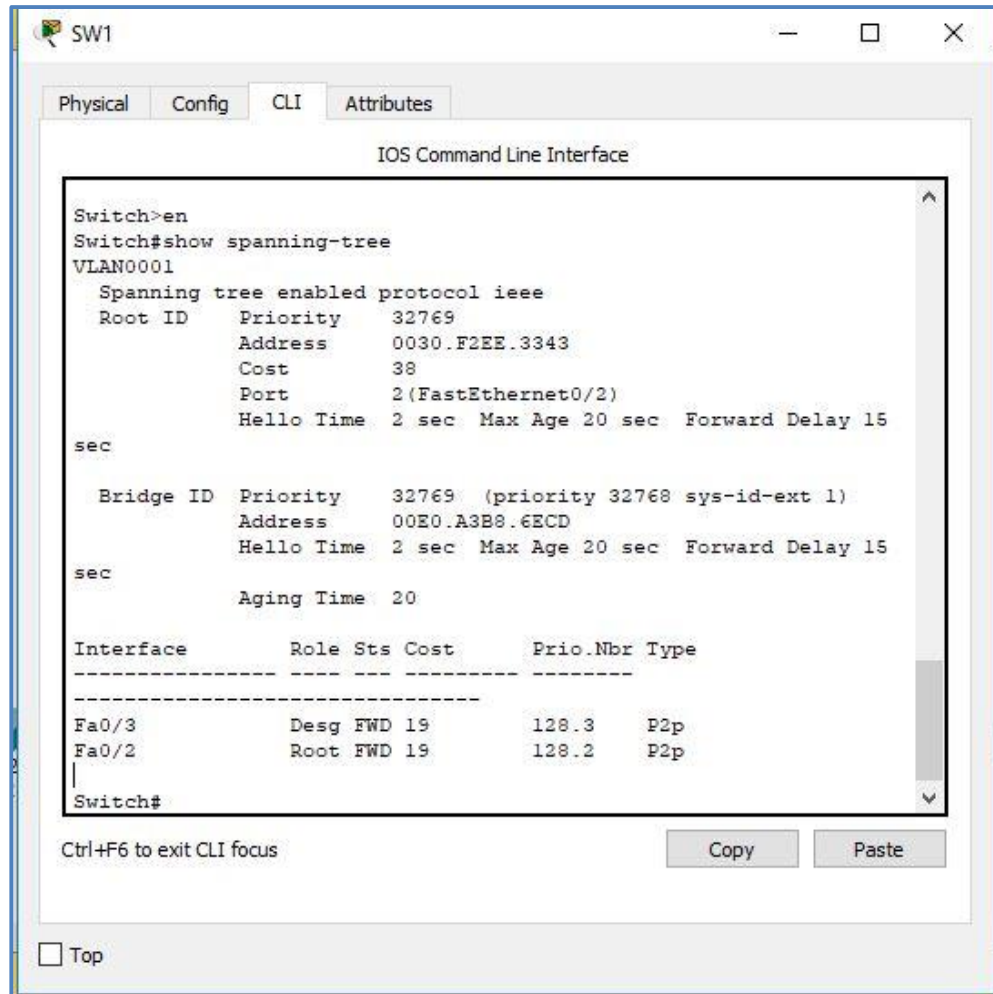
2. Melihat status STP pada masing-masing switch.

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- SW 1



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- SW 2

The screenshot shows a network switch configuration window titled "SW 2". It has four tabs: "Physical", "Config", "CLI", and "Attributes". The "CLI" tab is active, displaying the "IOS Command Line Interface". The command sequence entered is:

```
Switch>en
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
            Address     0030.F2EE.3343
            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     0030.F2EE.3343
            Hello Time  2 sec  Max Age 20 sec  Forward Delay 15
sec
            Aging Time  20
```

Below the text output is a table showing the spanning tree details for interfaces Fa0/3 and Fa0/2:

Interface	Role	Sts	Cost	Prio.Nbr	Type
Fa0/3	Desg	FWD	19	128.3	P2p
Fa0/2	Desg	FWD	19	128.2	P2p

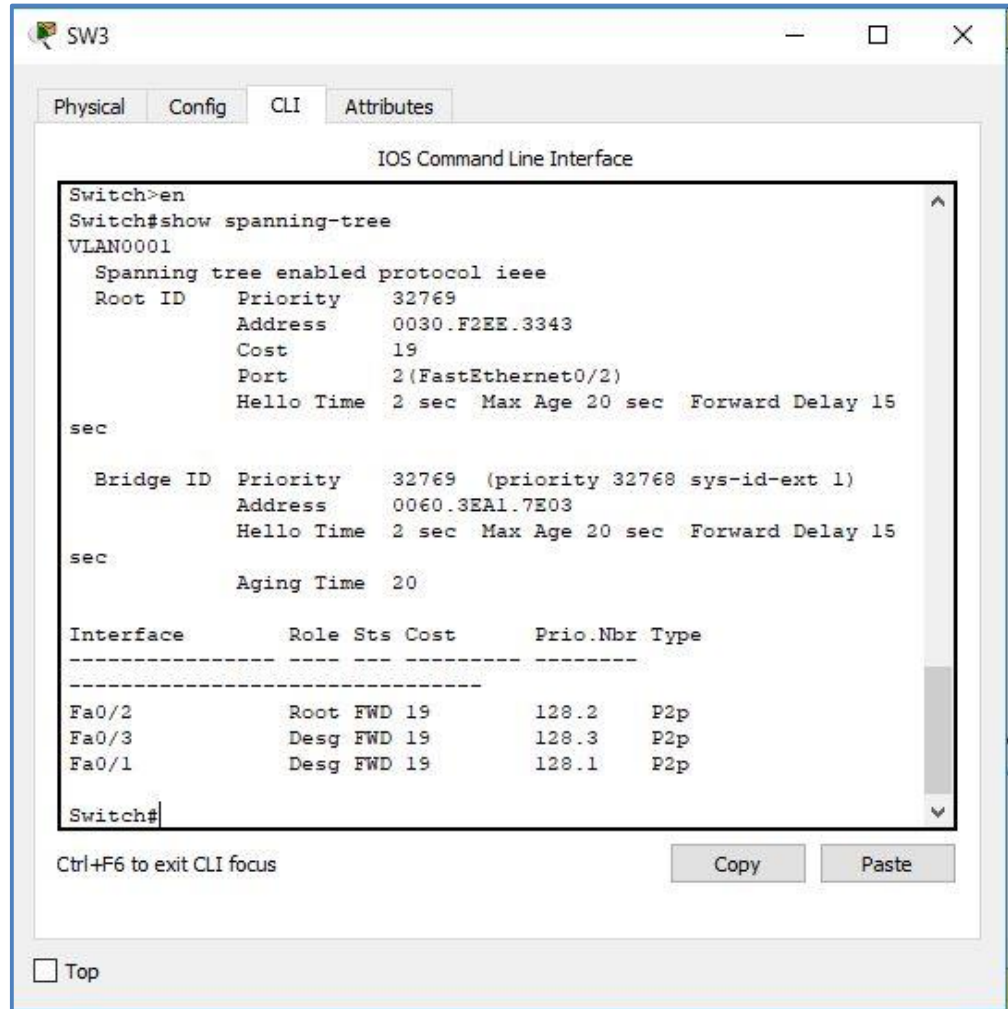
The CLI prompt is currently at "Switch#". At the bottom of the window, there is a "Top" button and a status bar indicating "Ctrl+F6 to exit CLI focus".

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- SW 3



The screenshot shows a network switch configuration window titled "SW3". It has tabs for "Physical", "Config", "CLI", and "Attributes". The "CLI" tab is active, displaying the "IOS Command Line Interface". The command entered is "Switch#show spanning-tree", and the output shows the spanning tree configuration for VLAN0001. The output includes the root ID, priority, address, cost, port, hello time, max age, forward delay, bridge ID, and a table of interface roles and costs.

```
Switch>en
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
    Root ID    Priority    32769
              Address    0030.F2EE.3343
              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    0060.3EAL.7E03
              Hello Time 2 sec  Max Age 20 sec  Forward Delay 15
sec
              Aging Time 20

Interface      Role Sts Cost      Prio.Nbr Type
-----
Fa0/2          Root FWD 19        128.2    P2p
Fa0/3          Desg FWD 19        128.3    P2p
Fa0/1          Desg FWD 19        128.1    P2p

Switch#
```

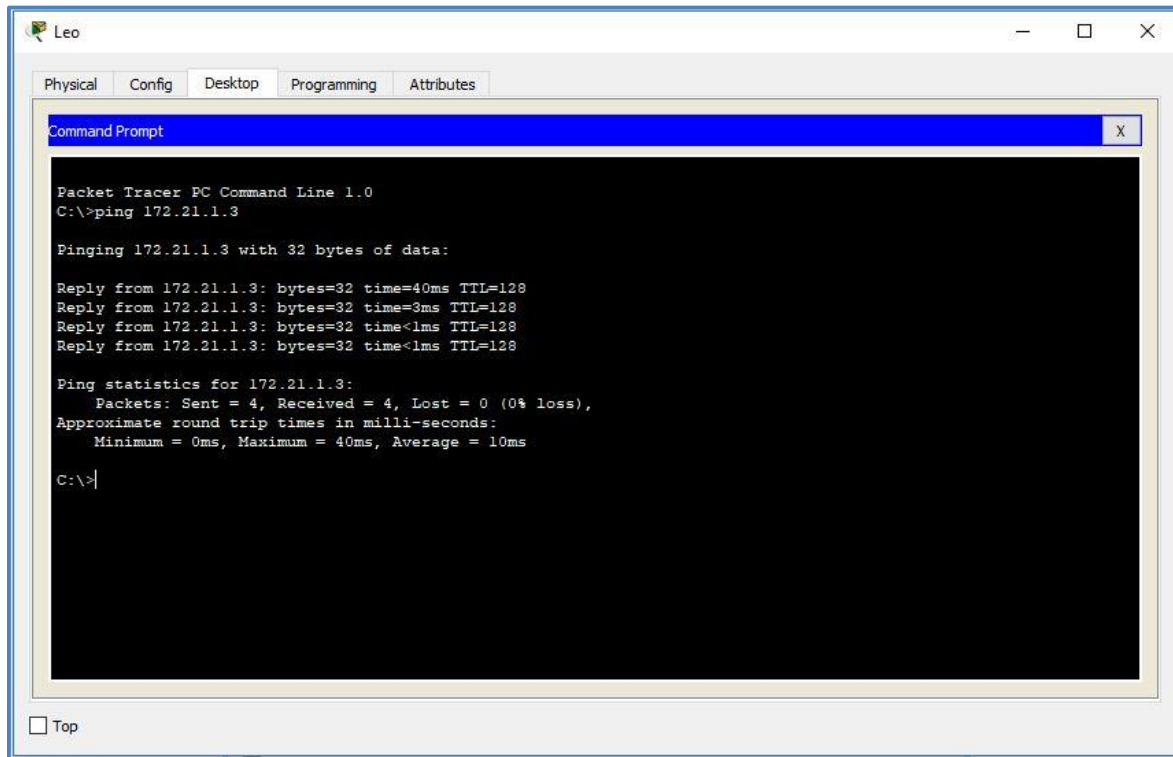
Below the CLI window, there is a "Ctrl+F6 to exit CLI focus" label and "Copy" and "Paste" buttons. At the bottom left, there is a "Top" button.

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3. Melakukan ping antara PC Leo dengan PC Virgo



```
Packet Tracer PC Command Line 1.0
C:\>ping 172.21.1.3

Pinging 172.21.1.3 with 32 bytes of data:

Reply from 172.21.1.3: bytes=32 time=40ms TTL=128
Reply from 172.21.1.3: bytes=32 time=3ms TTL=128
Reply from 172.21.1.3: bytes=32 time<1ms TTL=128
Reply from 172.21.1.3: bytes=32 time<1ms TTL=128

Ping statistics for 172.21.1.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 40ms, Average = 10ms

C:\>
```

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