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TUGAS PRAKTIKUM JARKOM MODUL VI

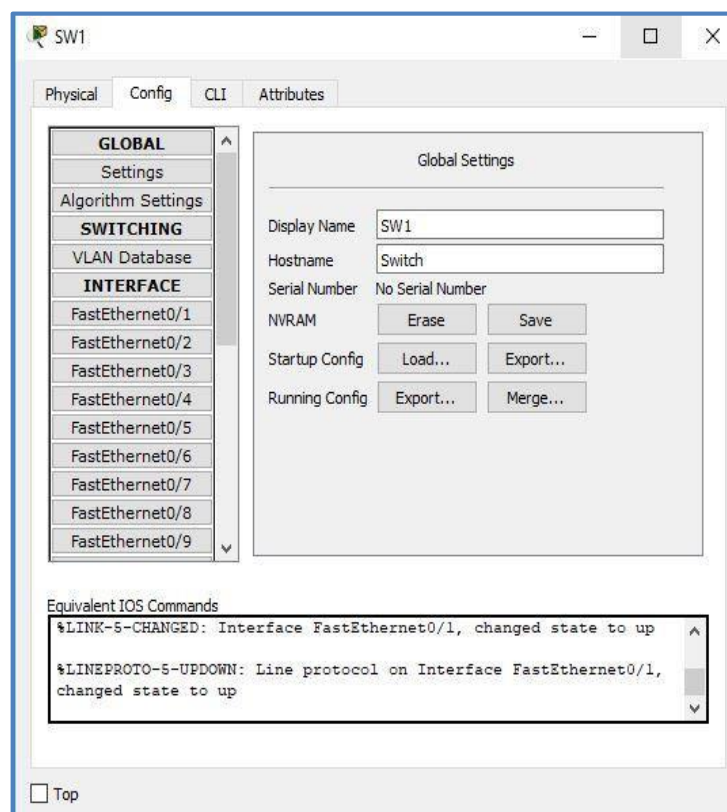
Kegiatan1

- Tugas 1A: Tulis langkah pembuatan topologi!

Jawab : Pilih switch 2950-24 sebanyak 3 buah dengan 3 buah PC. Kemudian hubungkan 3 buah switch tersebut dengan kabel dan hubungkan 3 buah PC tersebut dengan kabel juga.

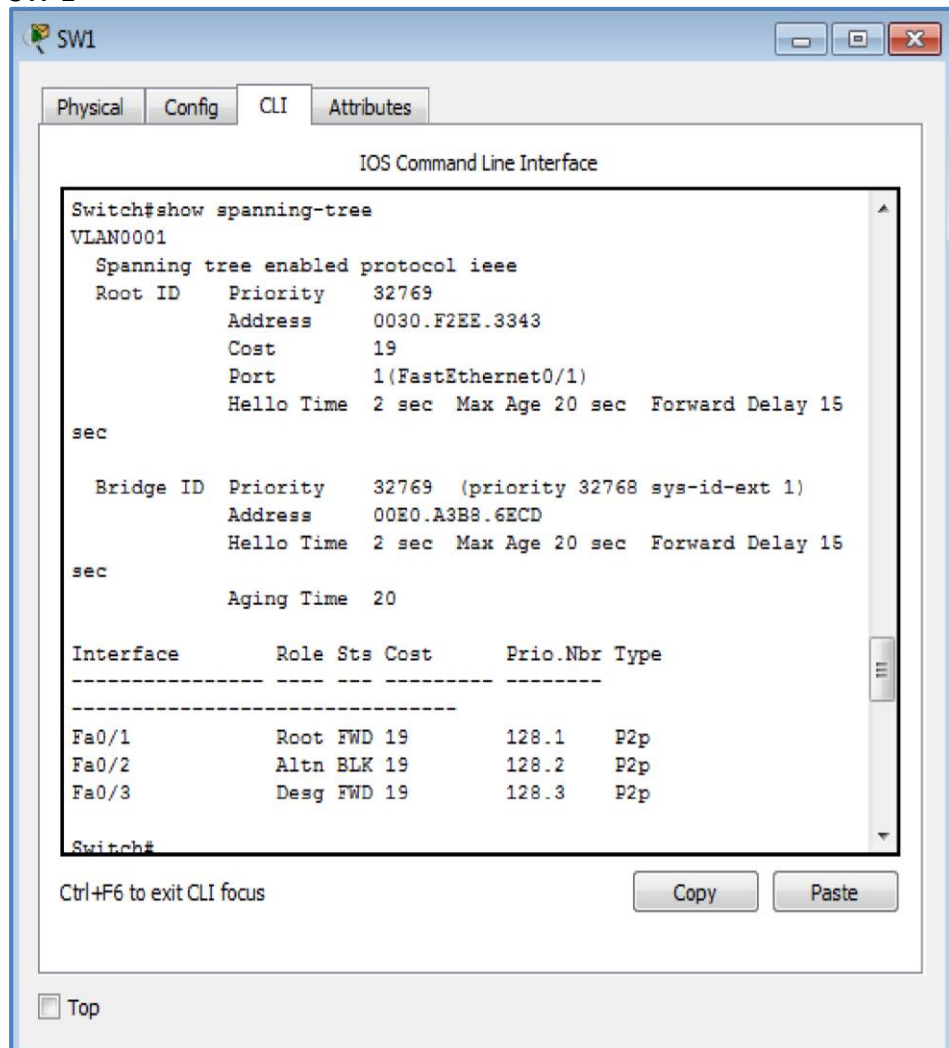
- Tugas 2A : Tulis langkah pemberian nama switch mulai dari mode user.

Jawab : Beri nama Switch lalu klik switch yang ingin diberi nama lalu pilih config dan isikan pada kolom global settings atau bisa secara langsung dengan cara mengklik switch nya dan tinggal mengganti namanya.

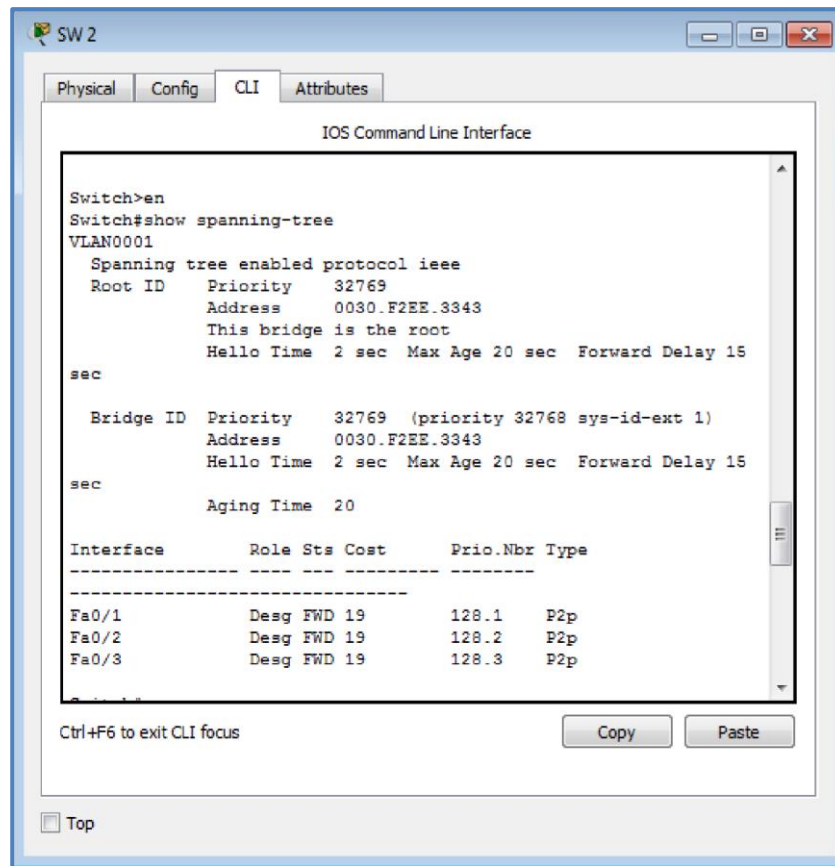


- Tugas 4A : Pada kondisi default, capture masing-masing tampilan status STP switch (SW1,SW2, dan SW3)

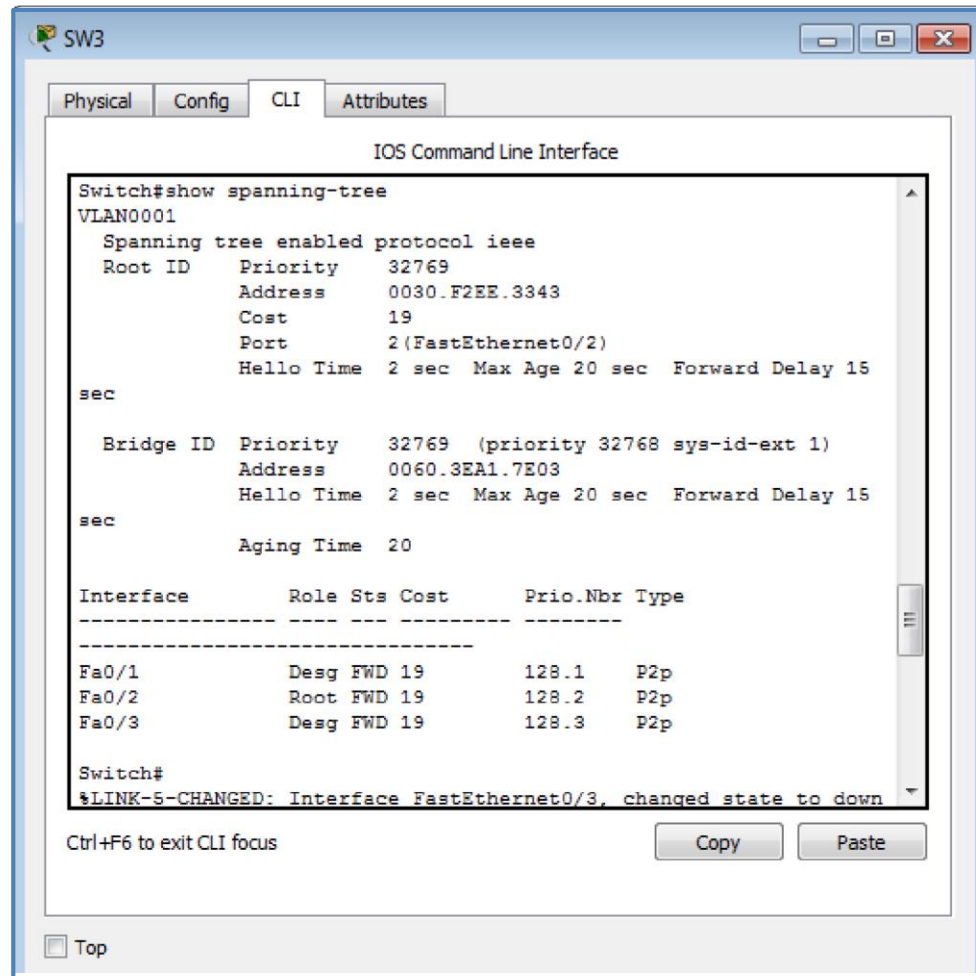
a. SW 1



b. SW2



c. SW3



- Tugas 4B :Untuk tiap-tiap switch, isikan tabel berikut ini :
a. SW 1

No	Variabel	Nilai	Interface	Role	Status
1.	Root ID	32769 : 0030.F2EE.3343	Fa 0/1	Root	FWD
2.	Priorty	32769	Fa 0/2	Altn	BLK
3.	MAC Address	00E0.A3B8.6ECD	Fa 0/3	Desg	FWD
4.	Bridge ID	32769 : 00E0. A3B8.6ECD			
5.	Cost(0/1:0/2:0/3)	0/1 = 19 0/2 = 19 0/3 = 19			
6.	Hello Time	2 sec			
7.	Max Age	20 sec			
8.	Forward Delay	15 sec			

b. SW 2

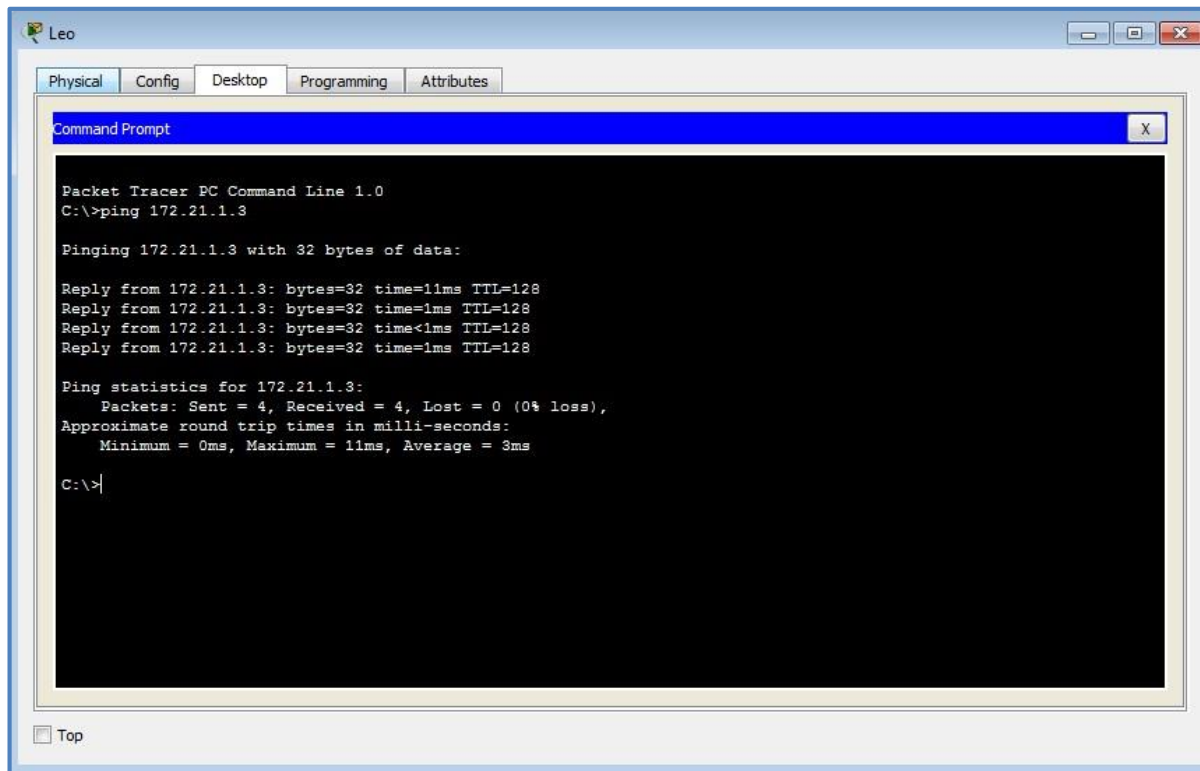
No	Variabel	Nilai	Interface	Role	Status
1.	Root ID	32769 : 0030.F2EE.3343	Fa 0/1	Desg	FWD
2.	Priorty	32769	Fa 0/2	Desg	FWD
3.	MAC Address	0030.F2EE.3343	Fa 0/3	Desg	FWD
4.	Bridge ID	32769 : 0030.F2EE.3343			
5.	Cost(0/1:0/2:0/3)	0/1 = 19 0/2 = 19 0/3 = 19			
6.	Hello Time	2 sec			
7.	Max Age	20 sec			
8.	Forward Delay	15 sec			

c. SW3

No	Variabel	Nilai	Interface	Role	Status
1.	Root ID	32769 : 0030.F2EE.3343	Fa 0/1	Desg	FWD
2.	Priorty	32769	Fa 0/2	Root	FWD
3.	MAC Address	0060.3EA1.7E03	Fa 0/3	Desg	FWD
4.	Bridge ID	32769 : 0060.3EA1.7E03			
5.	Cost(0/1:0/2:0/3)	0/1 = 19 0/2 = 19 0/3 = 19			
6.	Hello Time	2 sec			
7.	Max Age	20 sec			
8.	Forward Delay	15 sec			

- Tugas 4C : Pada kondisi default tersebut, switch dan port mana saja yang :
 - Menjadi *root bridge* : SW 2
 - Menjadi *designated bridge* : SW 1
 - Menjadi *root port* : SW 1 Fa 0/1 dan SW 3 Fa 0/3
 - Menjadi *designated port* : SW 1 Fa 0/3 , SW 2 (Fa 0/1 ; 0/2; 0/3) dan SW 3 (Fa 0/1, Fa 0/3)
- Tugas 4D : Pada kondisi default tersebut, dan port mana saja yang :
 - Berada pada keadaan *forwarding* : SW 1 (Fa 0/1; 0/3), SW 2 (Fa 0/1; 0/2; 0/3) SW 3 (Fa 0/1; 0/2; 0/3)

- Berada pada keadaan *blocking* : SW 1 (Fa 0/2)
- Tugas 5A : Tulis langkah untuk melakukan perintah ping.
Jawab : Pilih salah satu PC kemudian klik PC tersebut, selanjutnya pilih desktop kemudian pilih command prompt lalu ketik *ping 172.21.1.3* (sesuai dengan ip pada pc yang ingin di ping)



The screenshot shows a Packet Tracer PC Command Line window for a device named 'Leo'. The window has tabs for Physical, Config, Desktop, Programming, and Attributes. The Desktop tab is active, displaying a Command Prompt window. The Command Prompt shows the execution of the command 'C:\>ping 172.21.1.3'. The output indicates that the ping was successful, with four replies from 172.21.1.3, each with 32 bytes of data, a time of 1ms, and a TTL of 128. The ping statistics show that 4 packets were sent, 4 were received, and 0 were lost (0% loss). The approximate round trip times in milliseconds are: Minimum = 0ms, Maximum = 11ms, and Average = 3ms. The Command Prompt prompt is 'C:\>|'.

```
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=11ms 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
Reply from 172.21.1.3: bytes=32 time=1ms TTL=128

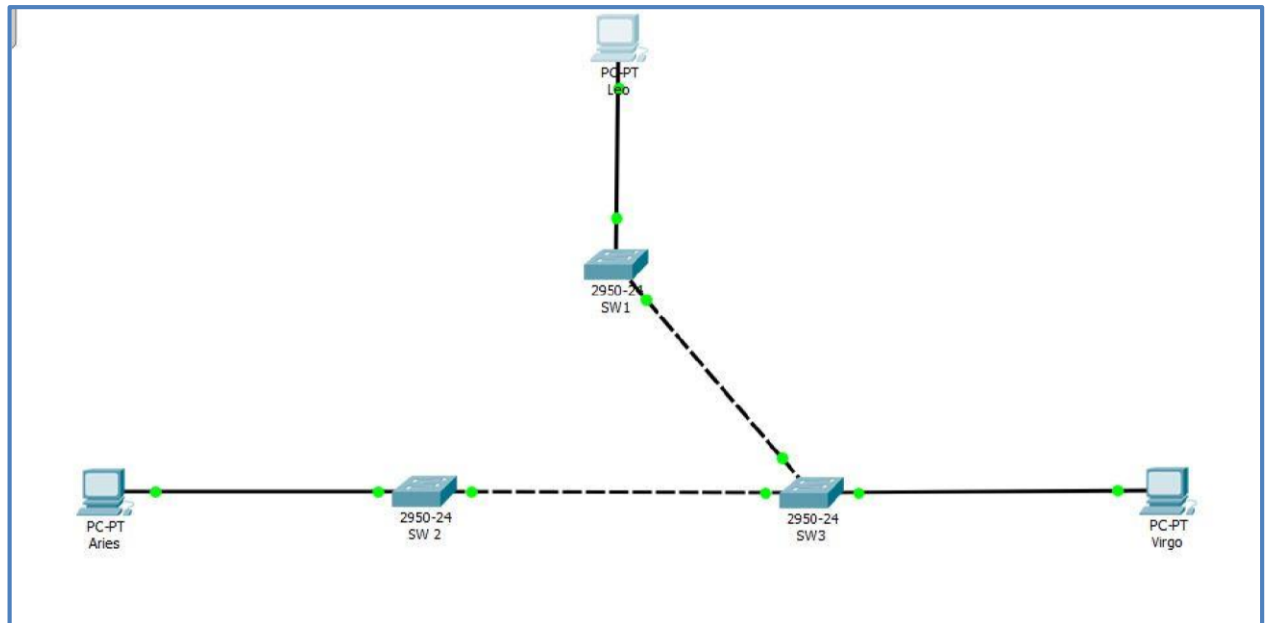
Ping statistics for 172.21.1.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 11ms, Average = 3ms

C:\>|
```

- Tugas 6A : Tulis Langkah untuk menyimpan konfigurasi jaringan.
Jawab : Klik switch kemudian pilih CLI masuk ke mode user/privillage kemudian tulis *Switch#copy running-config startup-config* Lalu enter.
Simpan konfigurasi jaringan dengan nama lab2.pkt

Kegiatan2.

- Tugas 9A : Kerjakan tugas seperti pada tugas langkah lab.4 .



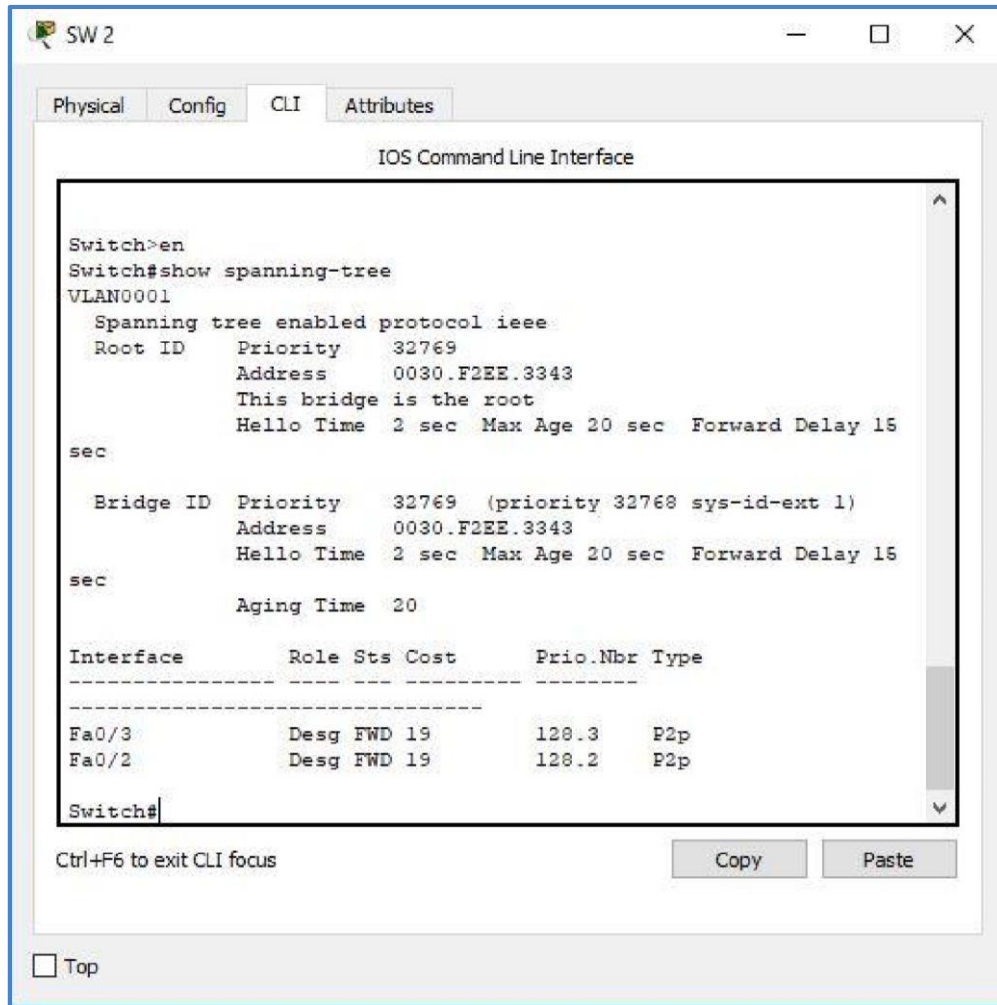
1. Melihat status STP pada masing-masing switch.

- SW 1

```
SW1
Physical Config CLI Attributes
IOS Command Line Interface
Switch>en
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     0030.F2EE.3343
             Cost        38
             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     00E0.A3B8.6ECD
             Hello Time  2 sec  Max Age 20 sec  Forward Delay 15
sec
             Aging Time  20

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


- 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 prompt is "Switch>en", and the command entered is "Switch#show spanning-tree". The output shows the spanning tree configuration for VLAN0001, indicating it is enabled with the IEEE protocol. The root bridge is identified as the local switch with priority 32769 and MAC address 0030.F2EE.3343. The output also shows the bridge ID, priority, address, hello time, max age, forward delay, and aging time. A table at the bottom lists the interfaces and their roles in the spanning tree.

```
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

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

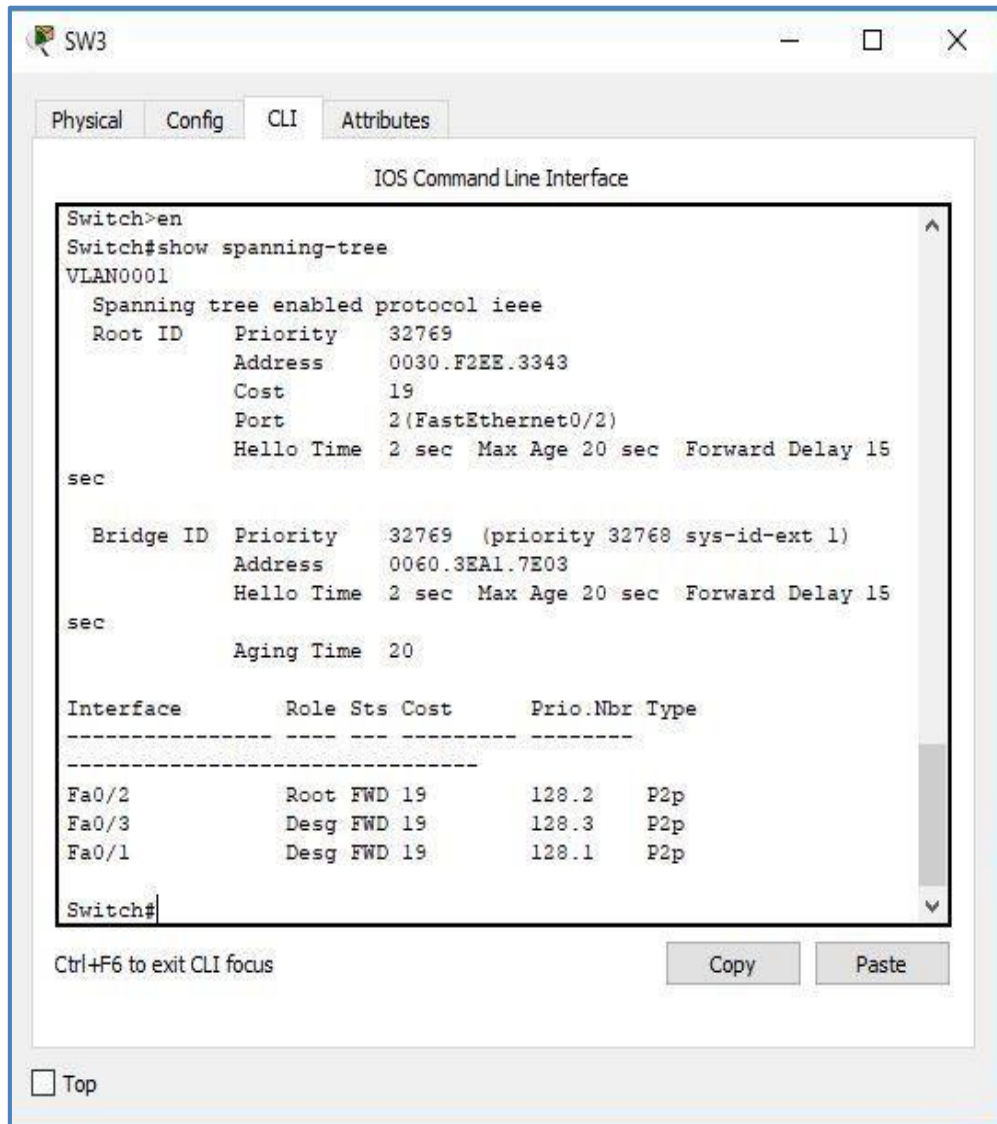
Switch#
```

Ctrl+F6 to exit CLI focus

Copy Paste

☐ Top

- SW 3



• SW 1

No	Variabel	Nilai	Interface	Role	Status
1.	Root ID	32769 : 0030.F2EE.3343	Fa 0/3	Desg	FWD
2.	Priorty	32769	Fa 0/2	Root	FWD
3.	MAC Address	00E0.A3B8.6ECD			
4.	Bridge ID	32769: 00E0.A3B8.6ECD			
5.	Cost(0/1:0/2:0/3)	0/3 = 19 0/2 = 19			
6.	Hello Time	2 sec			
7.	Max Age	20 sec			

8.	Forward Delay	15 sec				
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- SW 2

No	Variabel	Nilai		Interface	Role	Status
1.	Root ID	32769 : 0030.F2EE.3343		Fa 0/3	Desg	FWD
2.	Priorty	32769		Fa 0/2	Desg	FWD
3.	MAC Address	0030.F2EE.3343				
4.	Bridge ID	32769 : 0030.F2EE.3343				
5.	Cost(0/1:0/2:0/3)	0/3 = 19 0/2 = 19				
6.	Hello Time	2 sec				
7.	Max Age	20 sec				
8.	Forward Delay	15 sec				

- SW 3

No	Variabel	Nilai		Interface	Role	Status
1.	Root ID	32769 : 0030.F2EE.3343		Fa 0/2	Root	FWD
2.	Priorty	32769		Fa 0/3	Desg	FWD
3.	MAC Address	0060.3EA1.7E03		Fa 0/1	Desg	FWD
4.	Bridge ID	32769 : 0060.3EA1.7E03				
5.	Cost(0/1:0/2:0/3)	0/2 = 19 0/3 = 19 0/1 = 19				
6.	Hello Time	2 sec				
7.	Max Age	20 sec				

8.	Forward Delay	15 sec				
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- Tugas 4C : Pada kondisi default tersebut, switch dan port mana saja yang :
 - Menjadi *root bridge* : SW 2
 - Menjadi *designated bridge* : SW 1 dan SW 3
 - Menjadi *root port* : SW 1 Fa 0/2 dan SW 3 Fa 0/2
 - Menjadi *designated port* : SW 1 Fa 0/3 , SW 2 (Fa 0/2;0/3) dan
 - SW 3 (Fa 0/1, Fa 0/3)
- Tugas 4D : Pada kondisi default tersebut, dan port mana saja yang :
 - Berada pada keadaan *forwarding* : SW 1 (Fa 0/2;0/3), SW 2 (Fa 0/2;0/3)
 SW 3 (Fa 0/1;0/2;0/3)
 - Berada pada keadaan *blocking* : Tidak ada switch dan port dalam
 keadaan blocking