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Kelas : D

TUGAS MODUL 6

Kegiatan 1.

- Tugas 1A : Tulis langkah pembuatan topologi.

Jawab :

1. Pilih pada bagian Network Devices → Switches → pilih tipe 2950-24 → letakkan 3 switch
2. Pilih pada bagian End Devices → Generic Computer → letakkan 3 computer
3. Hubungkan dengan kabel. Pilih connections → pilih gambar petir lalu sambungan

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

Jawab :

Switch 1

Switch>enable

Switch#conf term

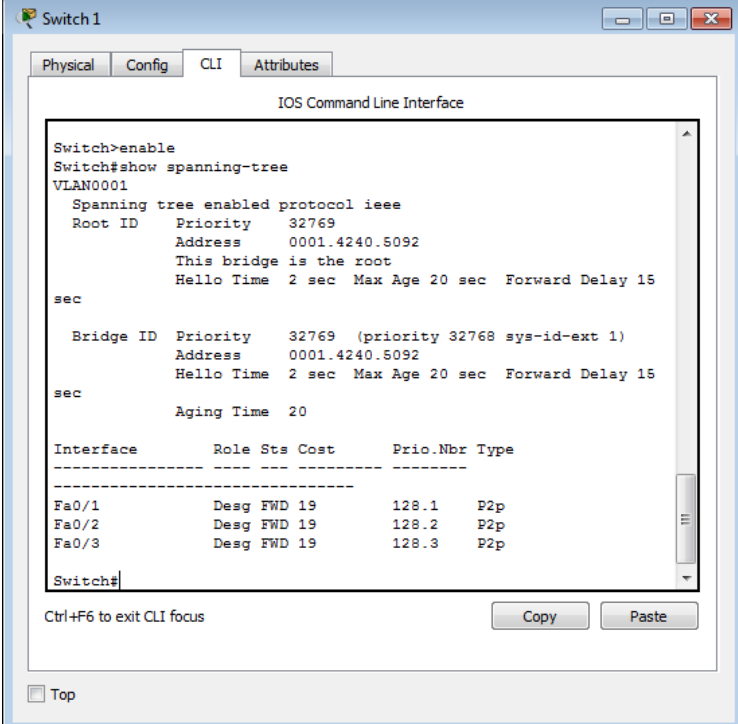
Switch(config)#hostname SW1

SW1(config)#

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

Jawab:

SW 1

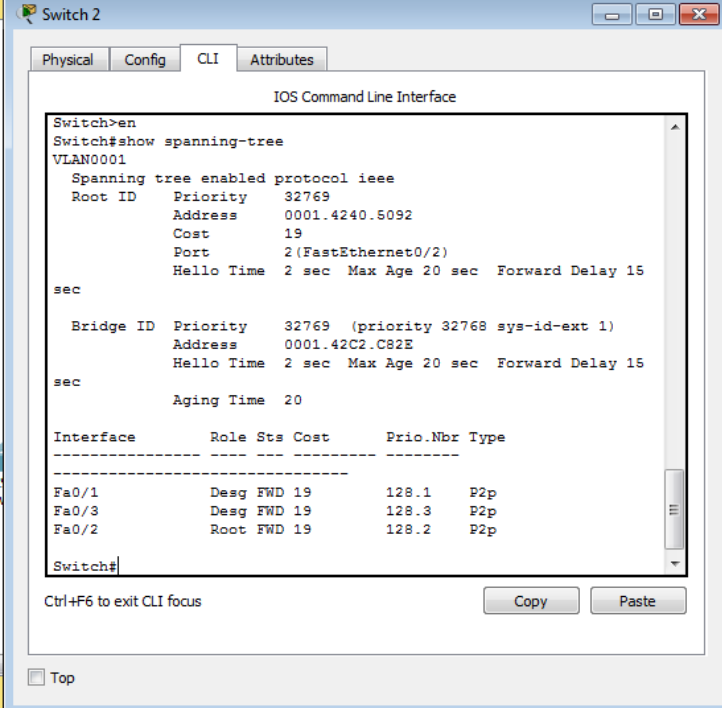


The screenshot shows the CLI of Switch 1. The user has entered the command `show spanning-tree` in VLAN0001. The output displays the spanning tree configuration for VLAN0001, including the root ID, priority, address, and hello time. It also shows the bridge ID, priority, address, and hello time. The output is as follows:

```
Switch>enable
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     0001.4240.5092
             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     0001.4240.5092
             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          Desg FWD 19        128.2   P2p
Fa0/3          Desg FWD 19        128.3   P2p
```

SW2

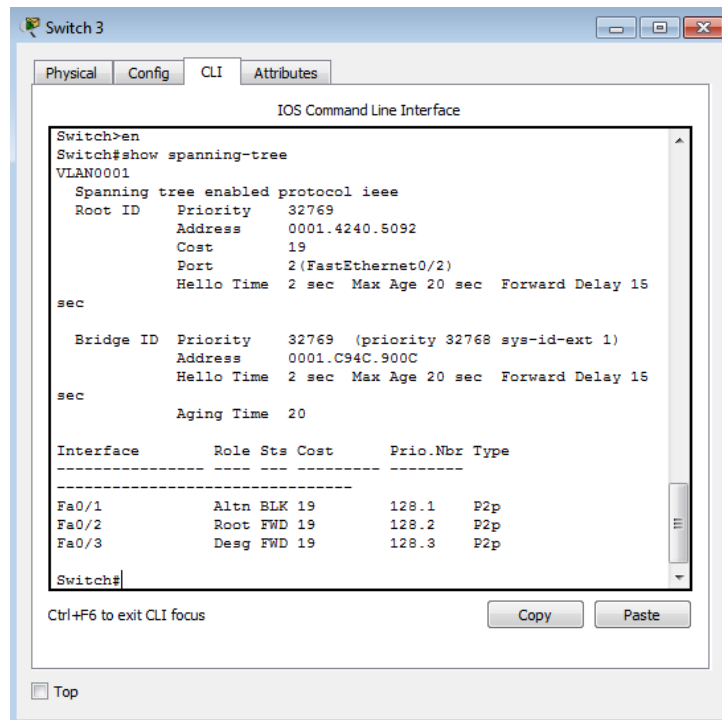


The screenshot shows the CLI of Switch 2. The user has entered the command `show spanning-tree` in VLAN0001. The output displays the spanning tree configuration for VLAN0001, including the root ID, priority, address, cost, port, and hello time. It also shows the bridge ID, priority, address, and hello time. The output is as follows:

```
Switch>en
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     0001.4240.5092
             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     0001.42C2.C82E
             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
Fa0/2          Root FWD 19        128.2   P2p
```

SW3



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

Jawab :

SW1

| No | Variabel | Nilai |
|----|-------------------|----------------------|
| 1 | Root ID | 32769:0001.4240.5092 |
| 2 | Priority | 32769 |
| 3 | MAC Address | 0001.4240.5092 |
| 4 | Bridge ID | 32769:0001.4240.5092 |
| 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 | 32769:0001.4240.5092 |
| 2 | Priority | 32769 |
| 3 | MAC Address | 0001.4240.5092 |
| 4 | Bridge ID | 32769.4240.5092 |
| 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 | 32769:0001.4240.5092 |
| 2 | Priority | 32769 |
| 3 | MAC Address | 0001.4240.5092 |
| 4 | Bridge ID | 32769:0001.C94C.900C |
| 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 :
 - Menjadi root bridge : **SW1**
 - Menjadi designated bridge : **SW2**
 - Menjadi root port : **SW2 (fa:0/2)**
 - Menjadi designated port : **SW3 (fa:0/3)**

- Tugas 4D : Pada kondisi default tersebut, switch dan port mana saja yang :
 - Berada pada keadaan forwarding : **SW1 (fa:0/1, 0/2, 0/3) , SW2 (fa:0/1,0/2,0/3), SW3 (fa:0/2,0/3)**
 - Berada pada keadaan blocking : **SW3 (fa:0/1)**

- Tugas 5A : Tulis langkah untuk melakukan perintah ping.

Jawab :

1. Klik pada pc leo
2. Pilih desktop
3. Pilih command prompt
4. Tuliskan ping 172.21.1.3

- Tugas 6A : Tulis langkah untuk menyimpan konfigurasi jaringan

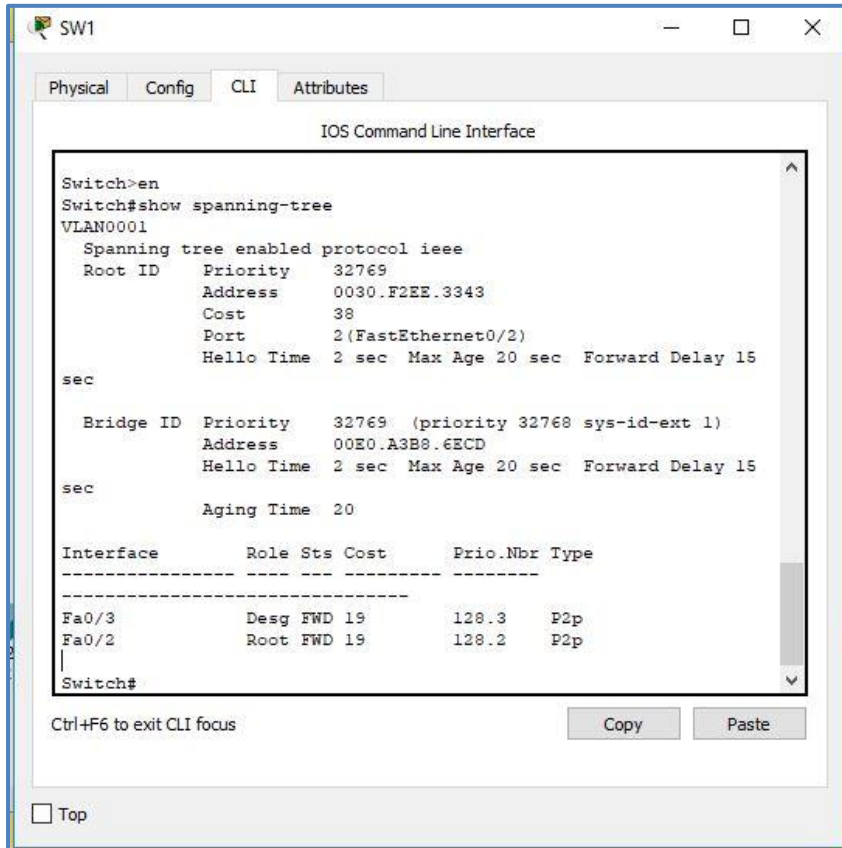
Jawab :

1. Pilih file
2. Pilih save
3. Beri nama lab2 yang akan berkestensi sesuai aplikasi yang digunakan

Kegiatan 2.

Tugas 9A :

SW1



The screenshot shows a network switch configuration window titled "SW1". It has tabs for "Physical", "Config", "CLI", and "Attributes". The "CLI" tab is active, displaying the "IOS Command Line Interface". The command sequence entered is:

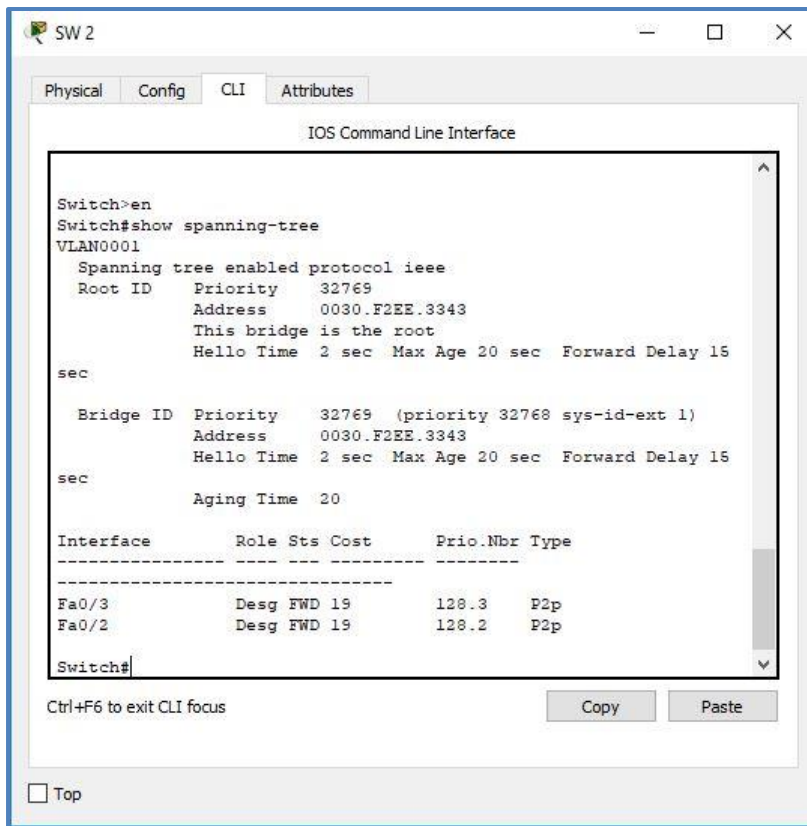
```
Switch>en
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
            Address    0030.F2EE.3343
            Cost        38
            Port        2(FastEthernet0/2)
            Hello Time  2 sec  Max Age 20 sec  Forward Delay 15
sec
  Bridge 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
```

Below this, a table shows the spanning tree details for interfaces Fa0/3 and Fa0/2:

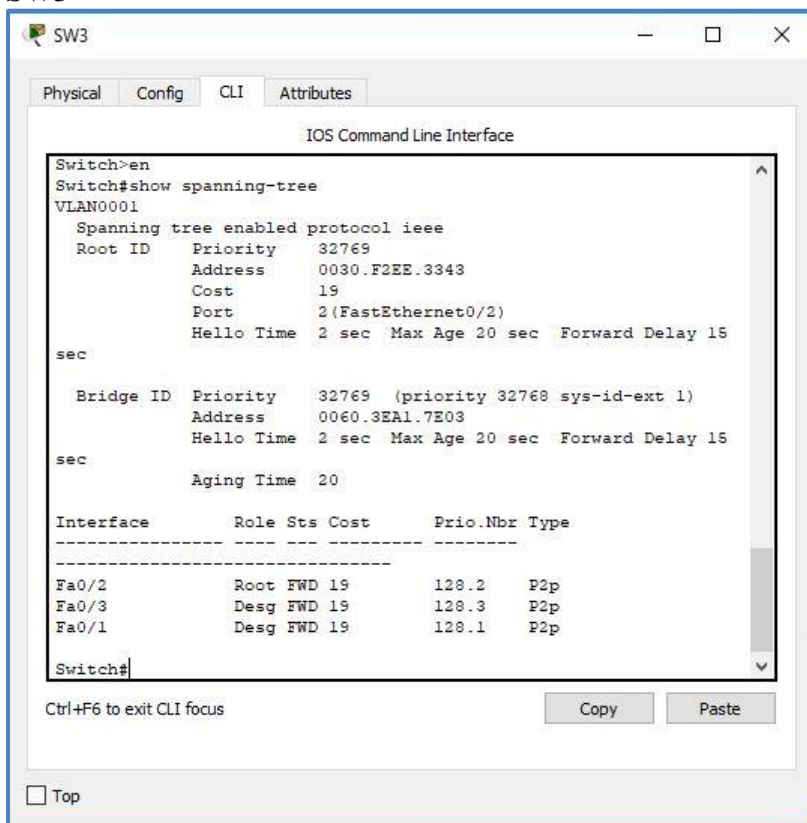
| Interface | Role | Sts | Cost | Prio. | Nbr | Type |
|-----------|------|-----|------|-------|-----|------|
| Fa0/3 | Desg | FWD | 19 | 128.3 | | P2p |
| Fa0/2 | Root | FWD | 19 | 128.2 | | P2p |

The CLI prompt is "Switch#". At the bottom of the window, there is a "Ctrl+F6 to exit CLI focus" message and "Copy" and "Paste" buttons. A "Top" button is also visible at the bottom left.

SW2



SW3



SW1

| No | Variabel | Nilai |
|----|-------------------|----------------------|
| 1 | Root ID | 32769:0030.F2EE.3343 |
| 2 | Priority | 32769 |
| 3 | MAC Address | 0030.F2EE.3343 |
| 4 | Bridge ID | 32769:00E0.A3B8.6ECD |
| 5 | Cost(0/1;0/2;0/3) | 38 |
| 6 | Hello Time | 2 sec |
| 7 | MaxAge | 20 sec |
| 8 | Forward Delay | 15 sec |

SW2

| No | Variabel | Nilai |
|----|-------------------|----------------------|
| 1 | Root ID | 32769:0030.F2EE.3343 |
| 2 | Priority | 32769 |
| 3 | MAC Address | 0030.F2EE.3343 |
| 4 | Bridge ID | 32769:0030.F2EE.3343 |
| 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 | 32769:0030.F2EE.3343 |
| 2 | Priority | 32769 |
| 3 | MAC Address | 0030.F2EE.3343 |
| 4 | Bridge ID | 32769:0060.3EA1.7E03 |
| 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: SW3
- designed bridge: SW1, SW2
- root port: SW1(fa 0/3) dan SW2(fa 0/3)
- designed port: SW1(fa 0/1), SW2(fa 0/1), dan SW3(fa 0/1; fa 0/2; fa 0/3)
- forwarding:
 - SW1(fa 0/1; fa 0/3)
 - SW2(fa 0/1; fa 0/3)

- SW3(fa 0/1; fa 0/2; fa 0/3)

- blocking: tidak ada yang terblock