Nama : Aulia Putri R

NIM   : L200180156
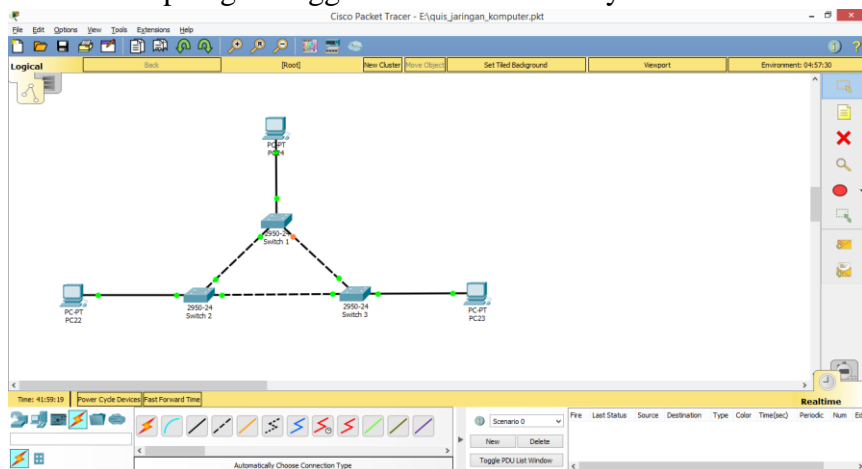
Kelas : F

Praktikum Jaringan Komputer

Modul 6: Spanning Tree Protocol

Kegiatan 1. Topologi 1

    a. Membuat topologi menggunakan Switch Catalyst 2950

Tugas 1A

    b. Memberi nama pada masing-masing switch
            ➢ Switch 1 sbg sw1

➢ Switch 2 sebagai sw2

➢ Switch 3 sebagai sw 3

Tugas 2A

➢ Switch 1

Switch>en
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname sw1
sw1(config)#end

➤ Switch 2

Switch>en
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
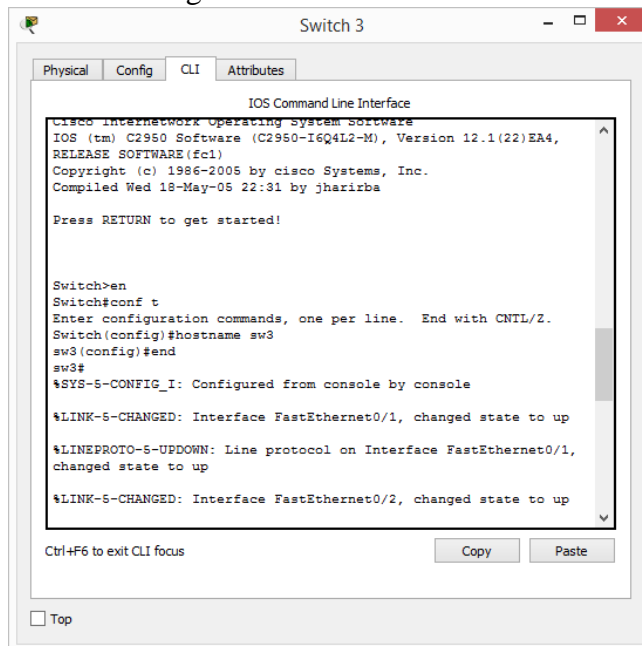*Switch(config)#hostname sw2*
sw2(config)#end

➤ Switch 3

Switch>en
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#hostname sw3
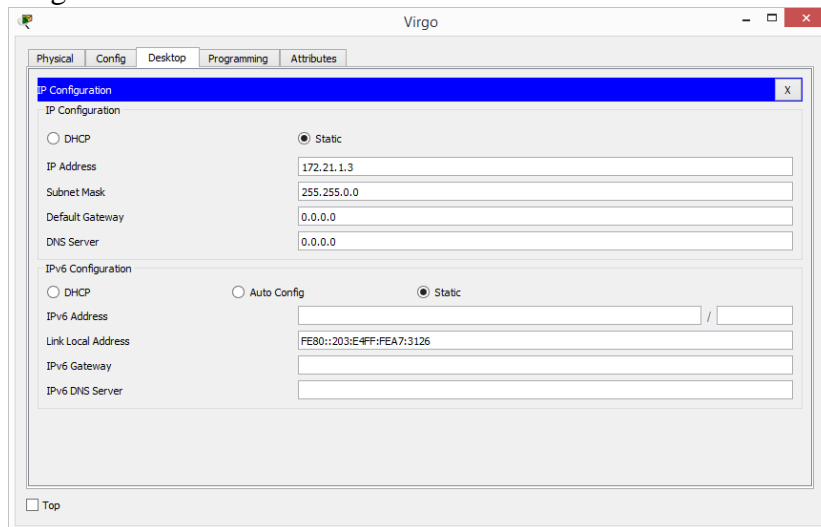*sw3(config)#end*

c. Konfigurasi IP pada masing-masing PC

➤ Leo

➤ Aries

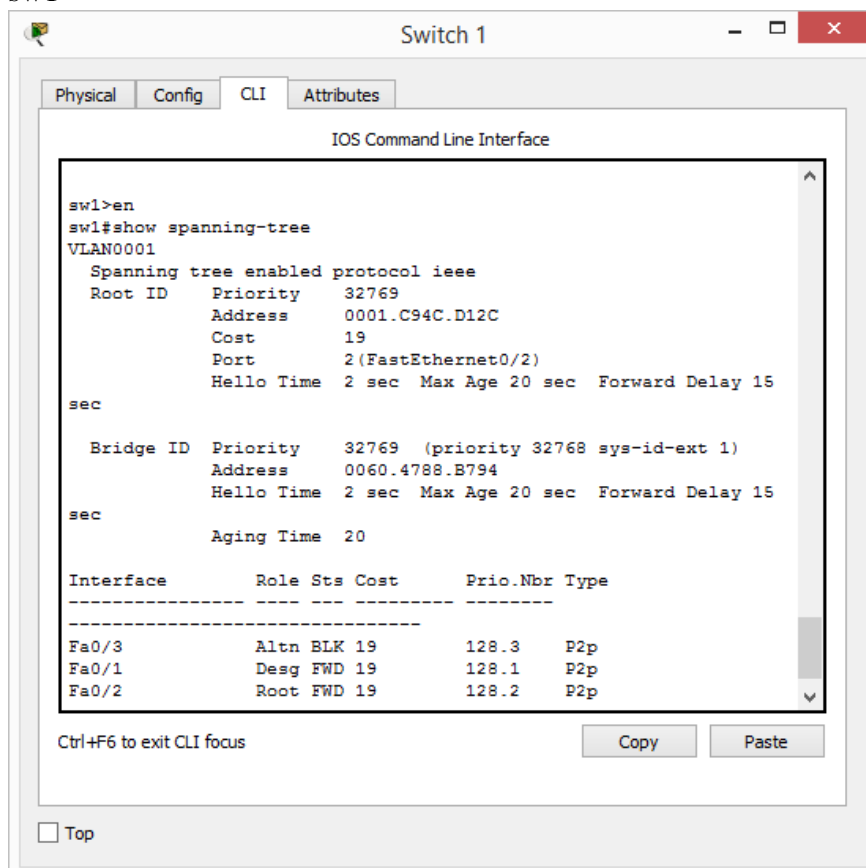➢ Virgo
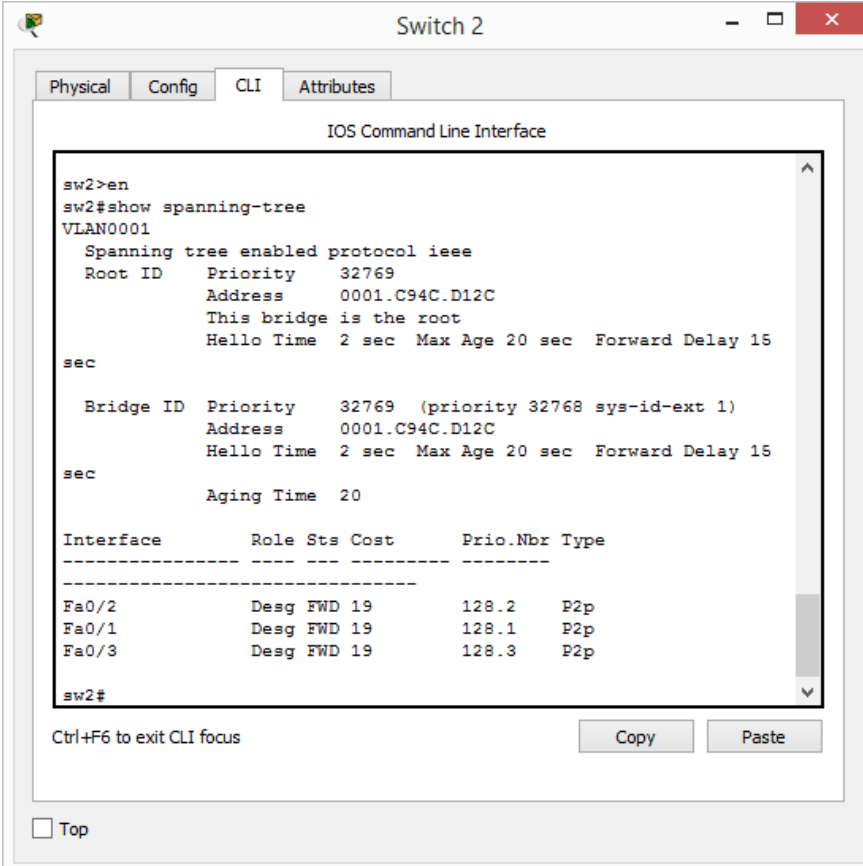

d. Lihat status STP pada masing-masing switch

Tugas 4A

➢ sw1

➢ sw2

```
Switch 2                                    — □ ×

Physical   Config   CLI   Attributes

              IOS Command Line Interface

  sw2>en
  sw2#show spanning-tree
  VLAN0001
    Spanning tree enabled protocol ieee
    Root ID    Priority    32769
               Address     0001.C94C.D12C
               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.C94C.D12C
               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
  Fa0/3            Desg FWD 19        128.3    P2p

  sw2#

  Ctrl+F6 to exit CLI focus              Copy      Paste

  ☐ Top
```
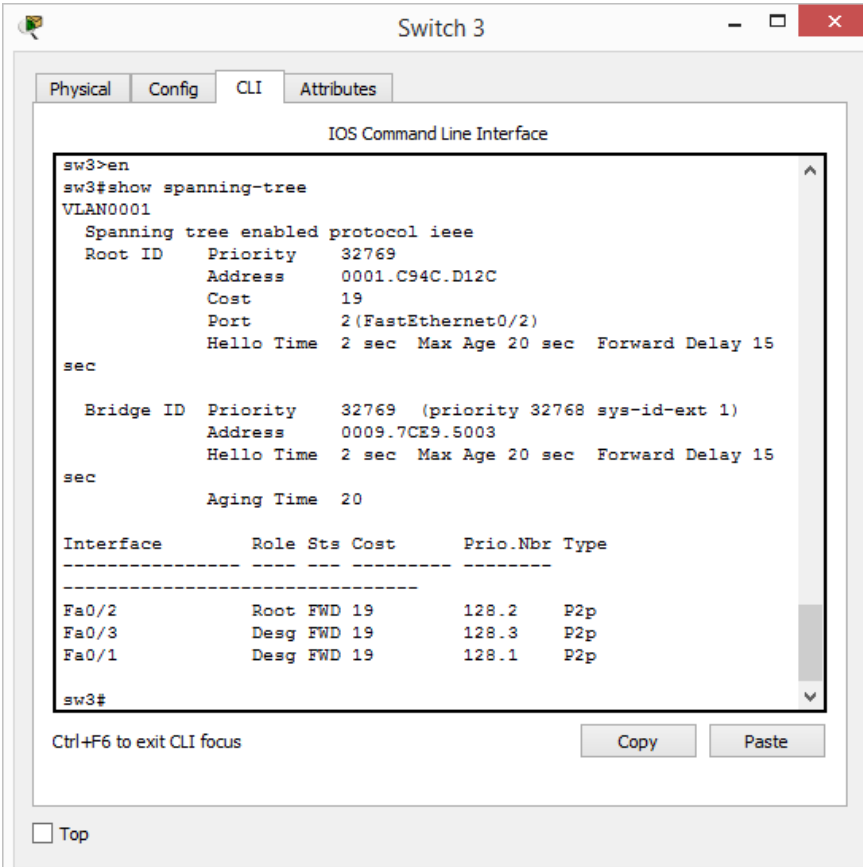
➢ sw3

```
Switch 3                                    — □ ×

Physical   Config   CLI   Attributes

              IOS Command Line Interface

  sw3>en
  sw3#show spanning-tree
  VLAN0001
    Spanning tree enabled protocol ieee
    Root ID    Priority    32769
               Address     0001.C94C.D12C
               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     0009.7CE9.5003
               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

  sw3#

  Ctrl+F6 to exit CLI focus              Copy      Paste

  ☐ Top
```

Tugas 4B

> sw1

No.	Variabel	Nilai
1.	Root ID	0001.C94C.D12C
2.	Priority	32769
3.	MAC Address	0060.4788.B794
4.	Bridge ID	0060.4788.B794
5.	Cost(0/1;0/2;0/3)	19/19/19
6.	Hello Time	2 sec
7.	MaxAge	20 sec
8.	Forward Delay	15 sec

> sw2

No.	Variabel	Nilai
1.	Root ID	0001.C94C.D12C
2.	Priority	32769
3.	MAC Address	0001.C94C.D12C
4.	Bridge ID	0001.C94C.D12C
5.	Cost(0/1;0/2;0/3)	19/19/19
6.	Hello Time	2 sec
7.	MaxAge	20 sec
8.	Forward Delay	15 sec

> sw3

No.	Variabel	Nilai
1.	Root ID	0001.C94C.D12C
2.	Priority	32769
3.	MAC Address	0009.7CE9.5003
4.	Bridge ID	0009.7CE9.5003
5.	Cost(0/1;0/2;0/3)	19/19/19
6.	Hello Time	2 sec
7.	MaxAge	20 sec
8.	Forward Delay	15 ec

Tugas 4C

> Root bridge   : sw2 (0001.C94C.D12C)
> Designated bridge : sw2 (Fa0/1;Fa0/2;Fa0/3)
> Root port   : sw1(Fa0/2), sw3(Fa0/2)
> Designated port   : sw1(Fa0/1), sw2(Fa0/1,Fa0/2,Fa0/3), sw3(Fa0/1;Fa0/3)

Tugas 4D

> Forwarding   : sw1(Fa0/1;Fa0/2), sw2(Fa0/1;Fa0/2;Fa0/3), sw3(Fa0/1;Fa0/2;Fa0/3)
> Blocking   : sw1(Fa0/3)

> Ping PC Leo ke PC Virgo
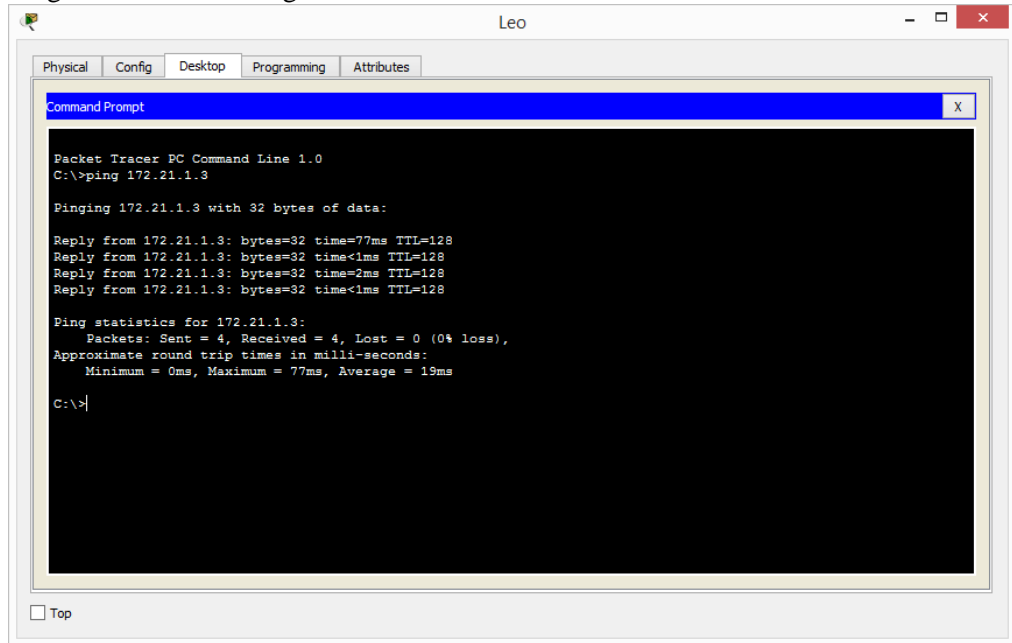
Tugas 5A. Langkah untuk melakukan perintah ping

> Masuk ke PC >> Desktop >> Command Prompt
> Lalu ketik "ping 172.21.1.3(alamat IP PC yang akan di ping)"

Tugas 6A

➢ Masuk ke setiap switch, pilih export

➢ Pilih direktori untuk menyimpan lalu tekan save

Kegiatan 2. Topologi 2

➢ sw1

➢ sw2

➢ sw3


```
sw3>en
sw3#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     000C.852E.EA52
             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     000C.CF45.045A
             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

sw3#
```

Tabel STP

➢ sw1

No.	Variabel	Nilai
1.	Root ID	000C.852E.EA52
2.	Priority	32769
3.	MAC Address	0060.5CD3.E29E
4.	Bridge ID	0060.5CD3.E29E
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	000C.852E.EA52
2.	Priority	32769
3.	MAC Address	000C.852E.EA52
4.	Bridge ID	000C.852E.EA52
5.	Cost(0/1;0/2;0/3)	19
6.	Hello Time	2 sec
7.	MaxAge	20 sec
8.	Forward Delay	15 sec

> sw3

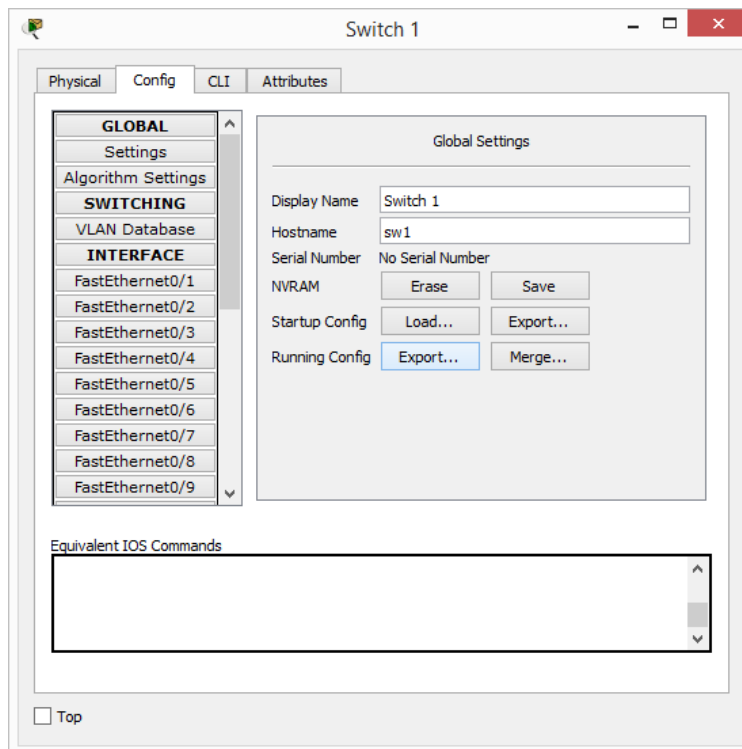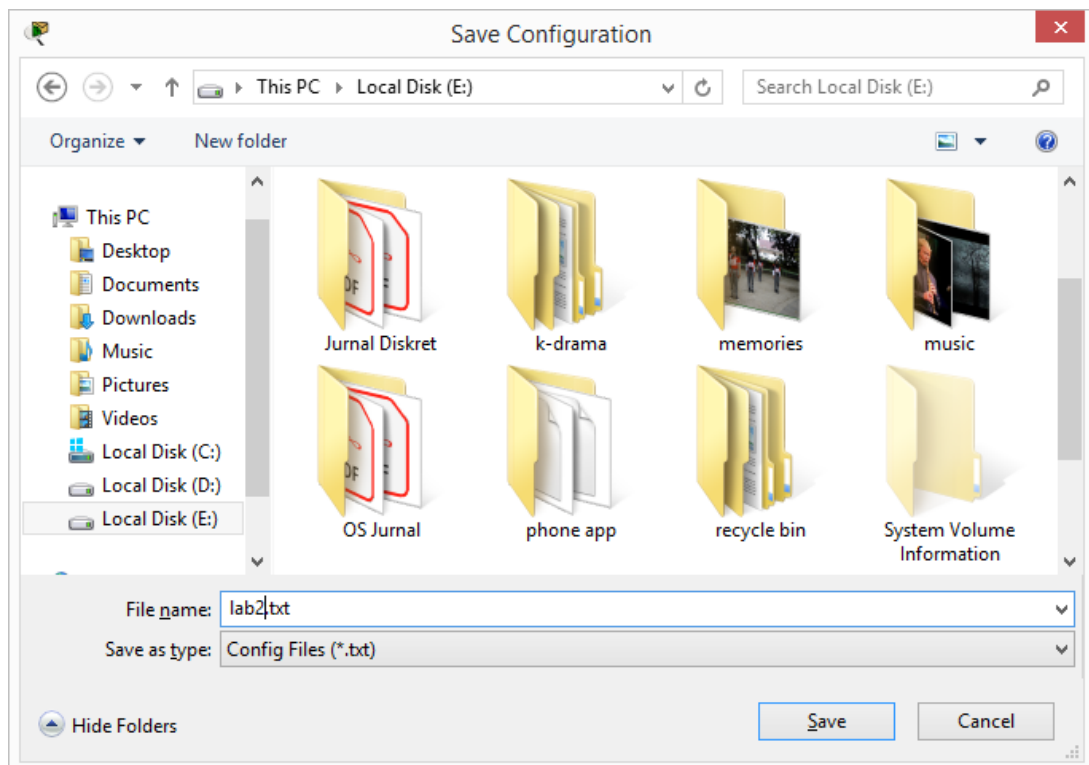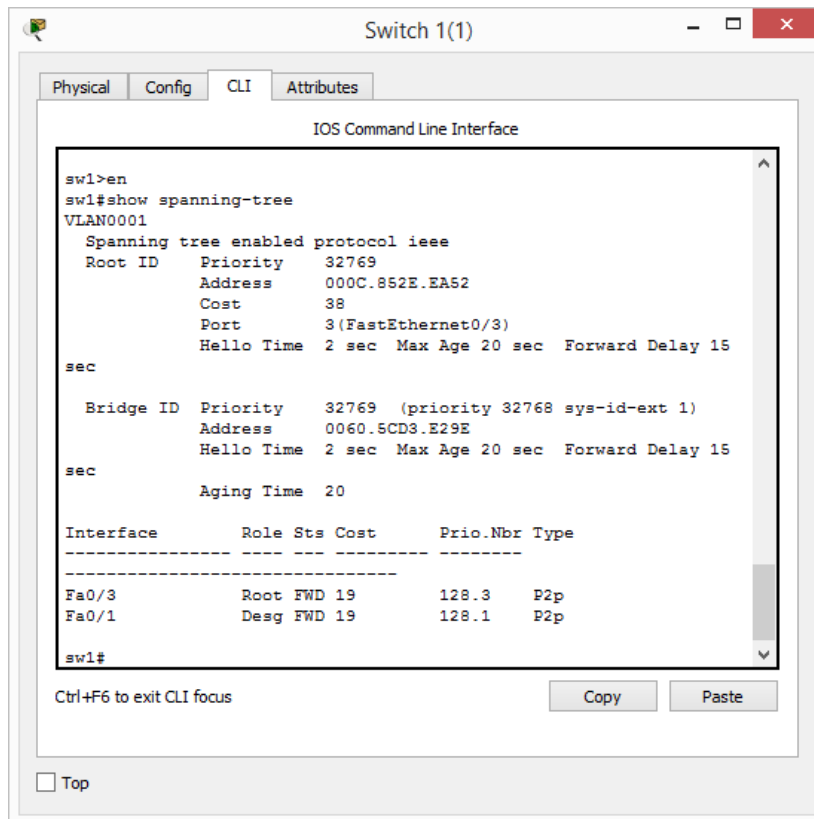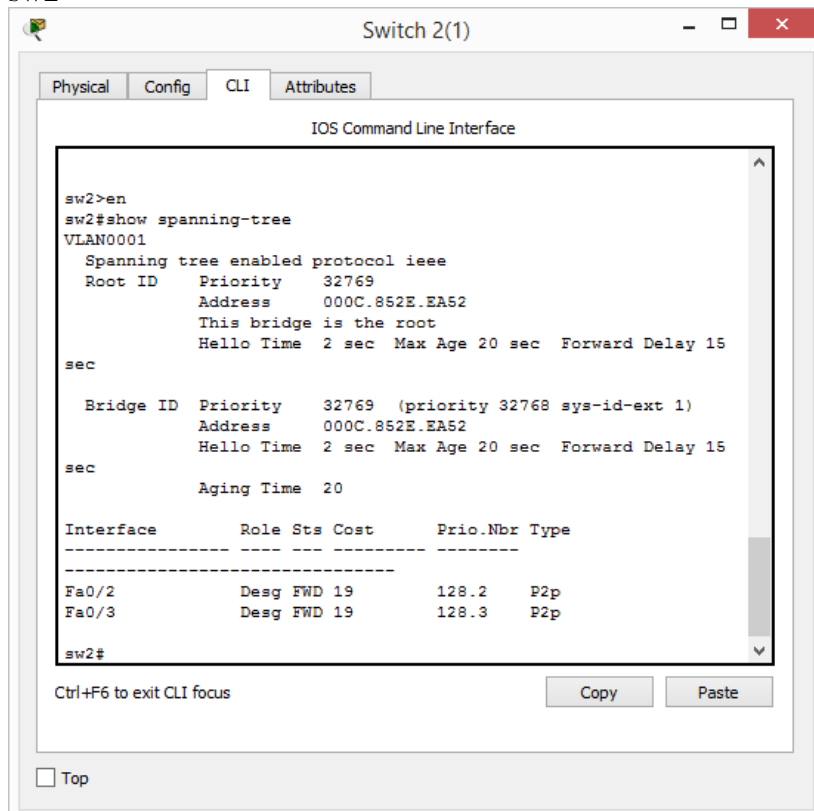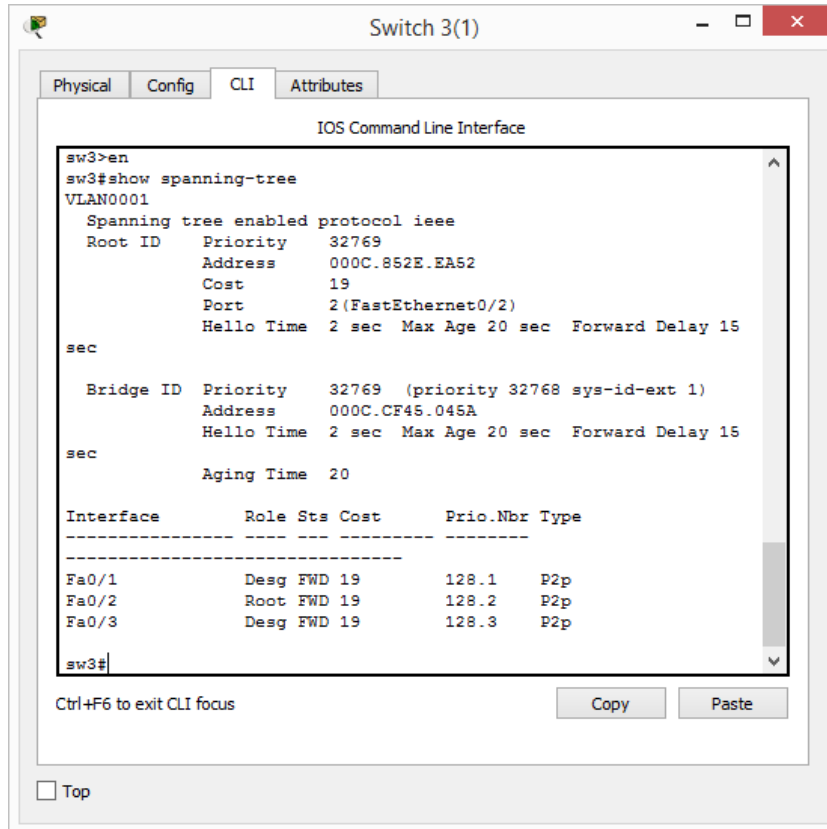| No.	Variabel	Nilai
1.	Root ID	000C.852E.EA52
2.	Priority	32769
3.	MAC Address	000C.CF45.045A
4.	Bridge ID	000C.CF45.045A
5.	Cost(0/1;0/2;0/3)	19
6.	Hello Time	2 sec
7.	MaxAge	20 sec
8.	Forward Delay	15 sec

> Root bridge   : sw2 (000C.852E.EA52)
> Designated bridge   : sw2 (Fa0/1;Fa0/3)
> Root port   : sw1(Fa0/3), sw3(Fa0/2)
> Designated port   : sw1(Fa0/1), sw2(Fa0/2;Fa0/3), sw3(Fa0/1;Fa0/3)
> Forwarding   : sw1(Fa0/1;Fa0/3), sw2(Fa0/2;Fa0/3), sw3(Fa0/1;Fa0/3)
> Blocking   : tidak ada