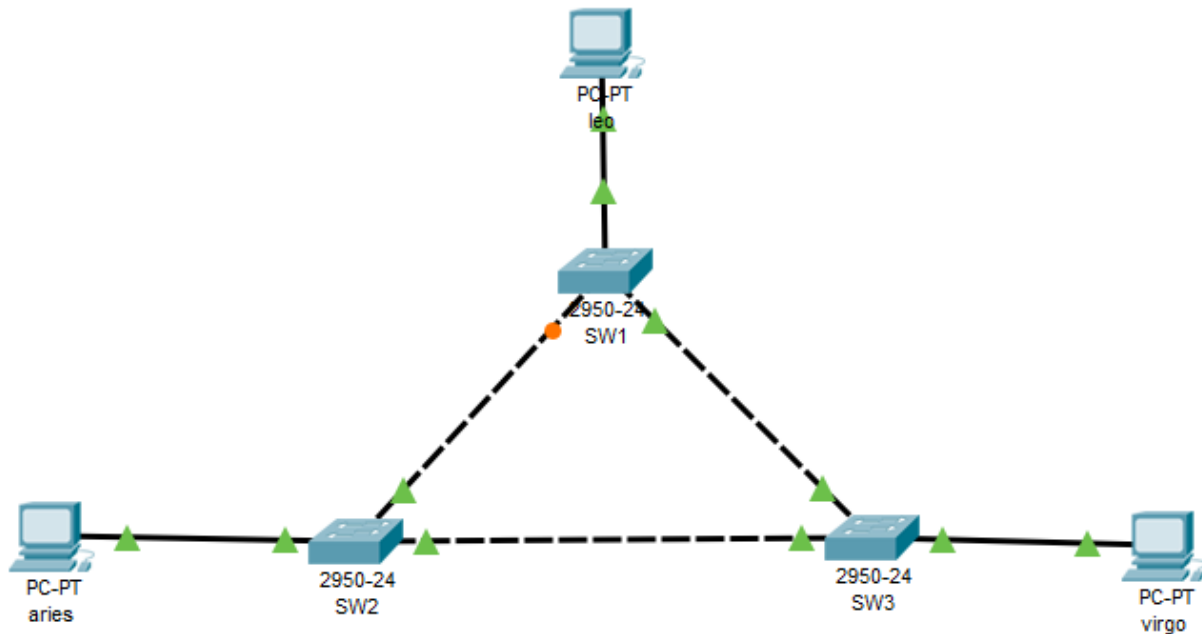Nama : Titis Ulfa Mustikawati
NIM   : L200170057
Kelas : B

MODUL VI
SPANNING TREE PROTOCOL

KEGIATAN PRAKTIKUM 1

1. Langkah pembuatan topologi
    a. Pilih switch 2950-24 lalu sisipkan pada layar dengan posisi sesuai dengan contoh gambar topologi 1
    b. Pilih pc-pt lalu sisipkan pada layar dengan posisi sesuai dengan contoh gambar
    c. Ubah nama pc dengan cara klik dua kali pada pc01, pc02, pc03 dengan nama leo, aries dan virgo
    d. Tarik kabel antara pc dan switch maupun switch dengan switch

2. Memberi nama switch
    a. Klik 2 kali pada switch0 dan ubah dengan nama SW1
    b. Klik 2 kali pada switch1 dan ubah dengan nama SW2
    c. Klik 2 kali pada switch2 dan ubah dengan nama SW3

3. Konfigurasi pc dengan alamat ip
   a. Leo = 172.21.1.1

   b. Aries = 172.21.1.2

c. Virgo = 172.21.1.3

4. Melihat status STP pada switch
   a. Tampilan status STP

SW2

Physical | Config | **CLI** | Attributes

IOS Command Line Interface

```
Switch>enable
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     000C.8538.D527
             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     00E0.F99B.54CB
             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             Altn BLK 19        128.3    P2p

Switch#.
```

Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

SW3

Physical | Config | **CLI** | Attributes

IOS Command Line Interface

```
Switch>enable
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     000C.8538.D527
             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.8538.D527
             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

Switch#
```
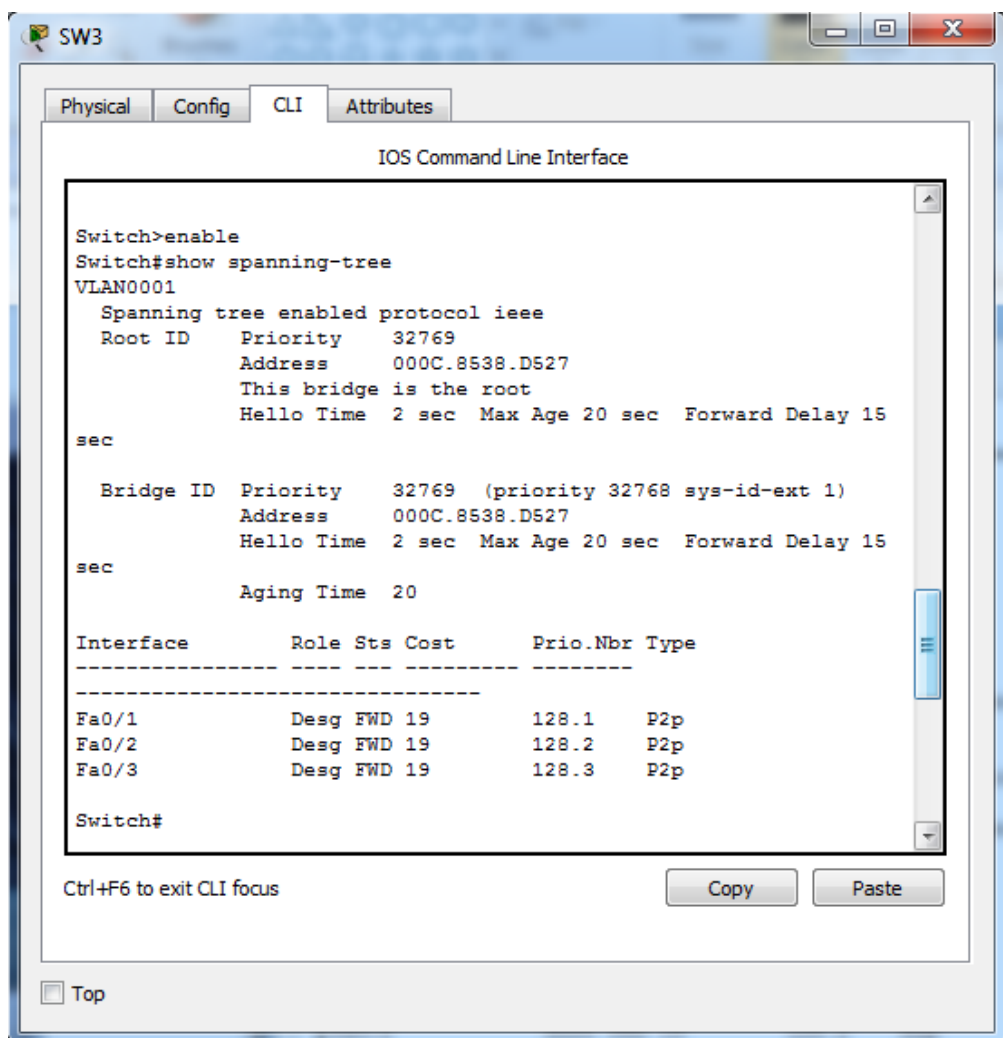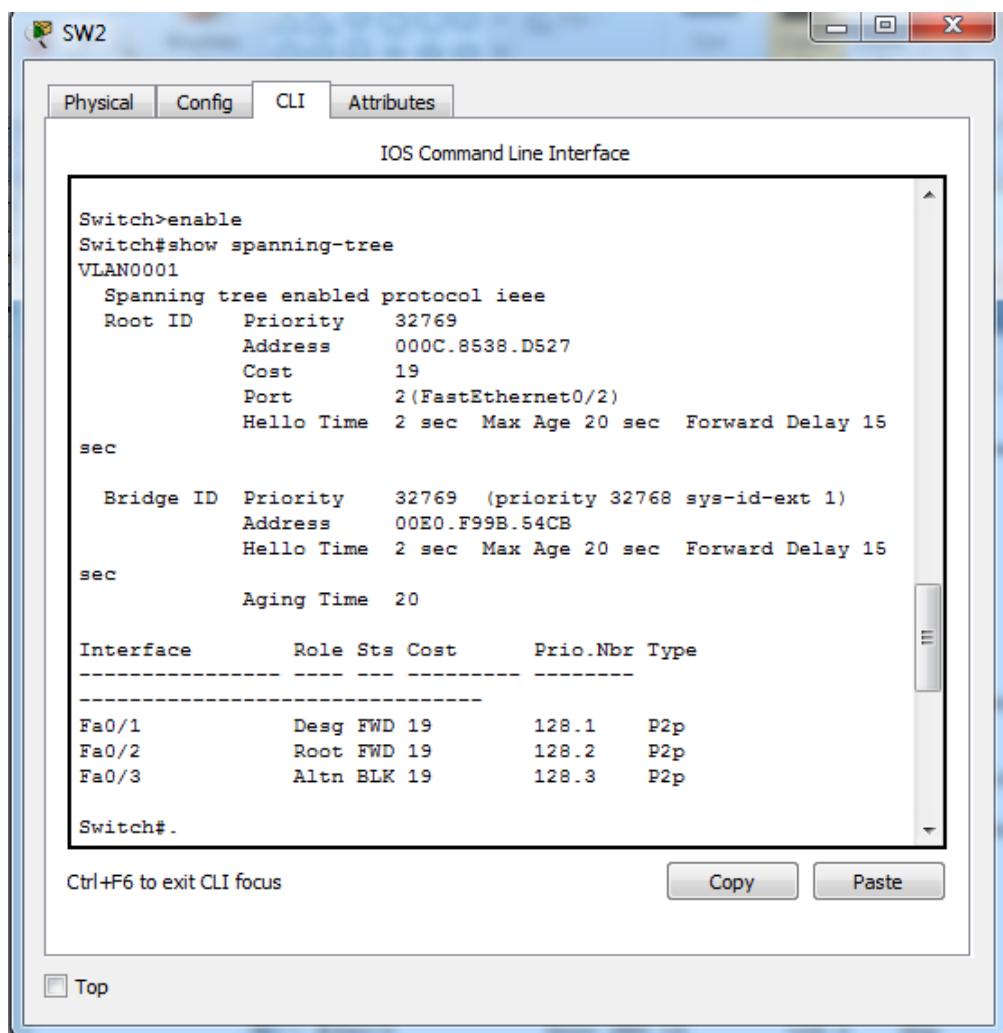
Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

b. Mengisi table

SW1

No	Variable	Nilai
1	Root ID	32769.000C.8538.D527
2	Priority	32769
3	MAC Adrress	000C.8538.D527
4	Bridge ID	32769.0090.0C48.424C
5	Cost (0/1;0/2;0/3)	19;19;19
6	Hello Time	2 sec
7	Max Age	20 sec
8	Forward Delay	15 sec

SW2

No	Variable	Nilai
1	Root ID	32769.000C.8538.D527
2	Priority	32769
3	MAC Adrress	000C.8538.D527
4	Bridge ID	32769.00E0.F99B.54CB
5	Cost (0/1;0/2;0/3)	19;19;19
6	Hello Time	2 sec
7	Max Age	20 sec
8	Forward Delay	15 sec

SW3

No	Variable	Nilai
1	Root ID	32769.000C.8538.D527
2	Priority	32769
3	MAC Adrress	000C.8538.D527
4	Bridge ID	32769.000C.8538.D527
5	Cost (0/1;0/2;0/3)	19;19;19
6	Hello Time	2 sec
7	Max Age	20 sec
8	Forward Delay	15 sec

c. Switch dan port pada kondisi default
- Root bridge   = SW1
- Root port   = SW2
- Designated bridge   = SW3
- Designated port   = -

d. Port pada kondisi default
- Fordwarding   = SW 1 , SW 2 & SW 3 (fa 0/1, fa 0/2)
- Blocking   = SW 3 fa 0/3

5. Ping pc leo ke pc virgo
    a. Klik pada pc leo
    b. Pada desktop, pilih command prompt
    c. Ketikkan 'ping 172.21.1.3' lalu enter

```
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 = 2ms

C:\>
```
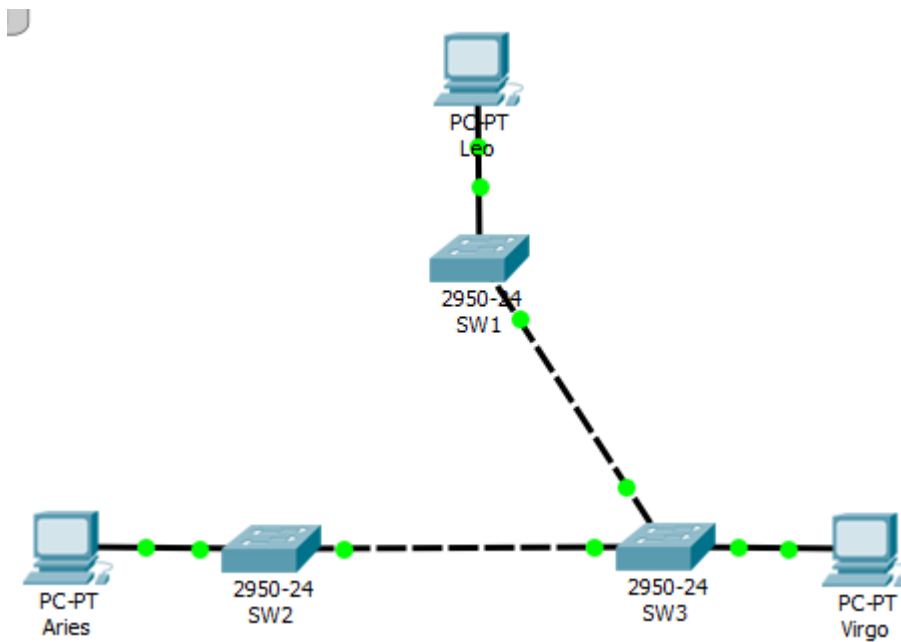
KEGIATAN PRAKTIKUM 2

1. Melihat status STP pada switch
   a. Tampilan status STP
      SW1

```
Switch>enable
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     000C.8538.D527
             Cost        19
             Port        1(FastEthernet0/1)
             Hello Time  2 sec  Max Age 20 sec  Forward Delay 15
sec

  Bridge ID  Priority    32769  (priority 32768 sys-id-ext 1)
             Address     0090.0C48.424C
             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
Fa0/1            Root FWD 19          128.1    P2p

Switch#
```

SW2

```
Switch>enable
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     000C.8538.D527
             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     00E0.F99B.54CB
             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

Switch#
```

SW3

```
Switch>enable
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     000C.8538.D527
             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     00E0.F99B.54CB
             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

Switch#
```

b. Mengisi table

SW1

No	Variable	Nilai	Interface	Role	Status
1	Root ID	32769.000C.8538.D527	Fa 0/1	desg	Fwd
2	Priority	32769	Fa 0/2	Desg	fwd
3	MAC Adrress	000C.8538.D527			
4	Bridge ID	32769.0090.0C48.424C			
5	Cost (0/1;0/2;0/3)	19;19;19			
6	Hello Time	2 sec			
7	Max Age	20 sec			
8	Forward Delay	15 sec			

SW2

No	Variable	Nilai	Interface	Role	Status
1	Root ID	32769.000C.8538.D527	Fa 0/3	Root	Fwd
2	Priority	32769	Fa 0/2	Desg	fwd
3	MAC Adrress	000C.8538.D527			
4	Bridge ID	32769.00E0.F99B.54CB			
5	Cost (0/1;0/2;0/3)	19;19;19			
6	Hello Time	2 sec			
7	Max Age	20 sec			
8	Forward Delay	15 sec			

SW3

No	Variable	Nilai	Interface	Role	Status
1	Root ID	32769.000C.8538.D527	Fa 0/3	desg	fwd
2	Priority	32769	Fa 0/1	Root	Fwd
3	MAC Adrress	000C.8538.D527	Fa 0/2	Desg	fwd
4	Bridge ID	32769. 00E0.F99B.54CB			
5	Cost (0/1;0/2;0/3)	19;19;19			
6	Hello Time	2 sec			
7	Max Age	20 sec			
8	Forward Delay	15 sec			

d. Switch dan port pada kondisi default
- Root bridge   = SW1 & SW3
- Root port   = SW2
- Designated bridge   = -
- Designated port   = -

e. Port pada kondisi default
- Fordwarding   = SW 1 , SW 2 & SW 3 (fa 0/1, fa 0/2, fa 0/3)
- Blocking   = -

6. Ping pc leo ke pc virgo
   a. Klik pada pc leo / pc
   b. Pada desktop, pilih command prompt
   c. Ketikkan 'ping 172.21.1.3' lalu enter

```
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:\>
```