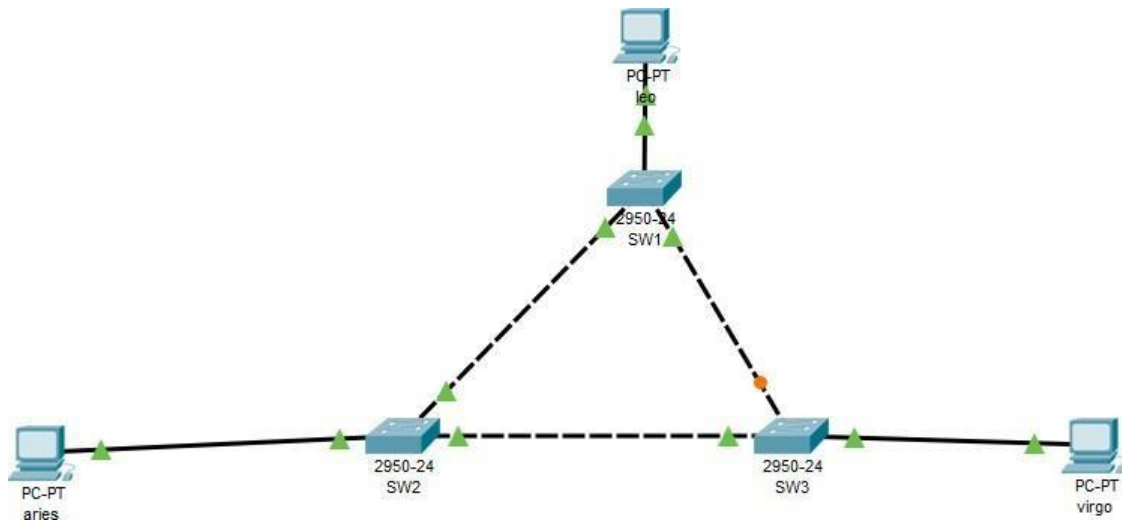


Nama : Karina Muslimah  
NIM : L200180138  
Kelas : D

## Modul 6

### Praktikum Jaringan Komputer

#### 1. Topologi 1



#### Tugas 1A:

Pertama kita beri 3 Switch 2950-24 lalu kita beri masing-masing PC per Switch dan sambungkan antar peripheral dengan media transmisi kabel

#### Tugas 2A:

##### SW1

Switch>en

Switch#conf t

Enter configuration commands, one per line. End with CNTL/Z.

Switch(config)#hostname SW1

SW1(config)#end

##### SW2

Switch>en

Switch#conf t

Enter configuration commands, one per line. End with CNTL/Z.

Switch(config)#hostname SW2

SW2(config)#end

### SW3

Switch>en

Switch#conf t

Enter configuration commands, one per line. End with CNTL/Z.

Switch(config)#hostname SW3

SW3(config)#end

### Tugas 4A:

#### SW1

The screenshot shows the CLI of a switch named SW1. The user has entered the command `show spanning-tree` for VLAN0001. The output displays the spanning tree enabled protocol IEEE, the root ID (32769), and the bridge ID (32769). It also shows the interface roles and costs for Fa0/1, Fa0/2, and Fa0/3.

```
SW1>en
SW1#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     0005.5E1E.E626
             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     0060.3E9B.9385
             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

SW1#
```

Ctrl+F6 to exit CLI focus

Copy Paste

☐ Top

## SW2

SW2

Physical Config CLI Attributes

IOS Command Line Interface

```
changed state to up

SW2>en
SW2#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address    0005.5E1E.E626
             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    0005.5E1E.E626
             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          Desg FWD 19        128.1    P2p
Fa0/2          Desg FWD 19        128.2    P2p

SW2#
```

Ctrl+F6 to exit CLI focus

Copy Paste

☐ Top

## SW3

SW3

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     0005.5E1E.E626
             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     0090.2BBC.D8B8
             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          Altn BLK 19        128.3    P2p
Fa0/2          Root FWD 19        128.2    P2p

SW3#
```

Ctrl+F6 to exit CLI focus

Copy Paste

☐ Top

**Tugas 4B:****SW1**

No	Variabel	Nilai
1	Root ID	0005.5E1E.E626
2	Priority	32769
3	Mac Address	0060.3E9B.9385
4	Bridge ID	0060.3E9B.9385
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	0005.5E1E.E626
2	Priority	32769
3	Mac Address	0005.5E1E.E626
4	Bridge ID	0005.5E1E.E626
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	0005.5E1E.E626
2	Priority	32769

3	Mac Address	0090.2BBC.D8B 8
4	Bridge ID	0090.2BBC.D8B 8
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

#### Tugas 4C:

**Root bridge** : SW2

**Designated bridge** : SW1

**Root port** : SW1 (Fa0/2), SW3(Fa0/2)

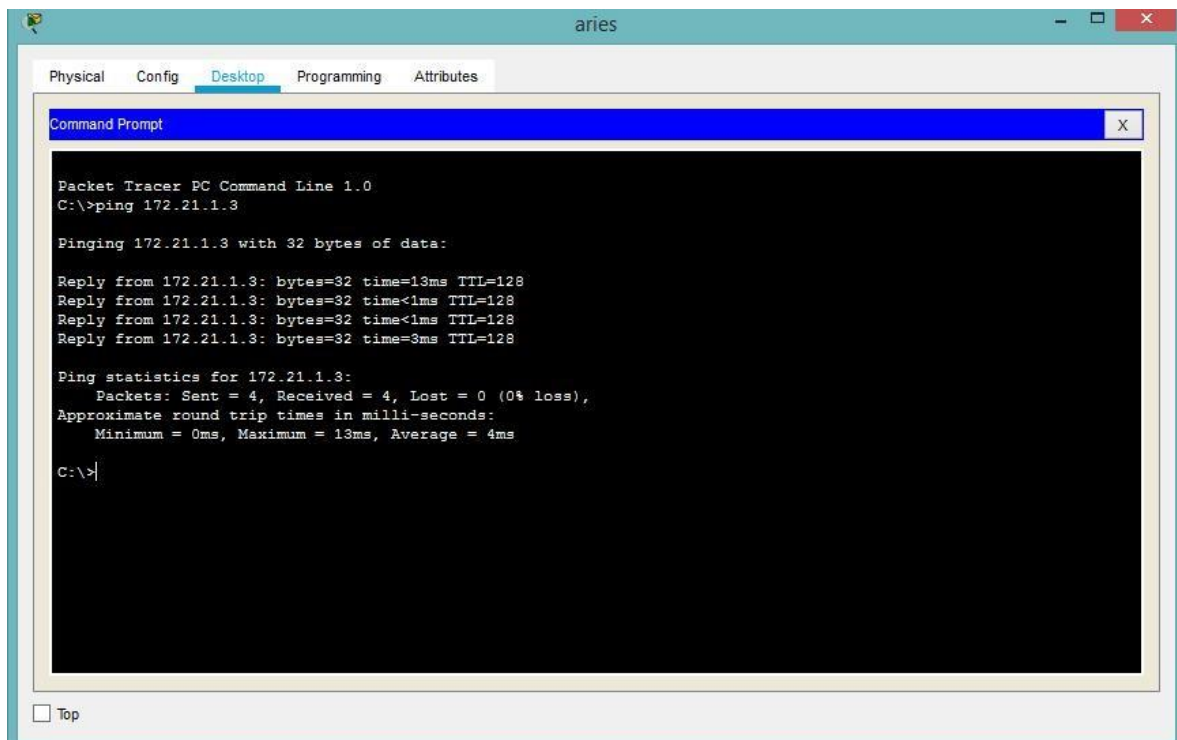
**Designated port** : SW1(Fa0/1;Fa0/3), SW2(Fa0/1,Fa0/2,Fa0/3), SW3(Fa0/1)

#### Tugas 4D:

**Forwarding** :SW1(Fa0/1;Fa0/2;Fa0/3), SW2(Fa0/1;Fa0/2;Fa0/3), SW3(Fa0/1;Fa0/2)

**Blocking** : SW3(Fa0/3)

#### Tugas 5A:



Masuk ke PC >> Desktop >> Command Prompt

Lalu ketik “ping 172.21.1.3”

### Tugas 6A:

Lakukan perintah dibawah untuk setiap switch :

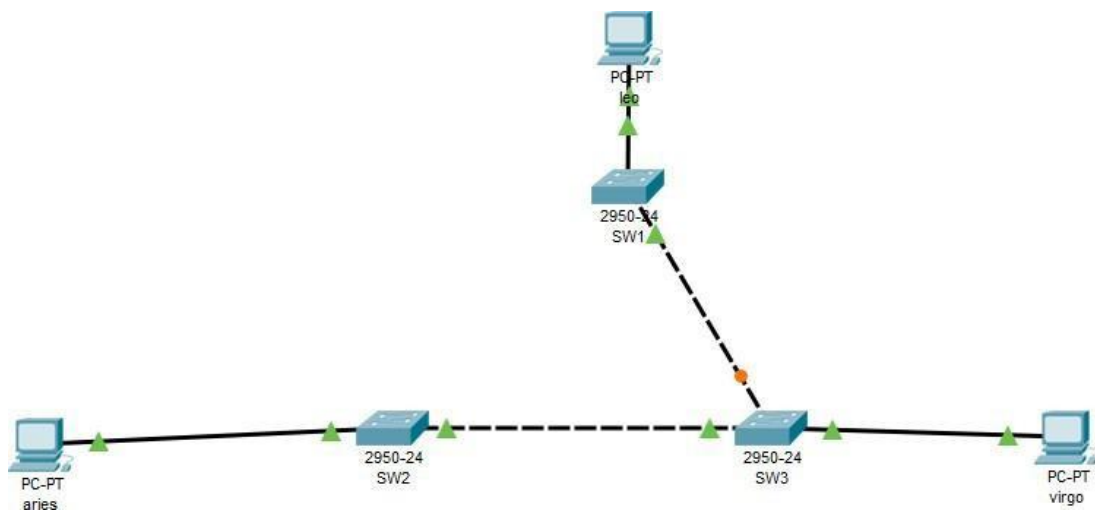
*SW1>en*

*SW1#write*

*Building configuration...*

*[OK]*

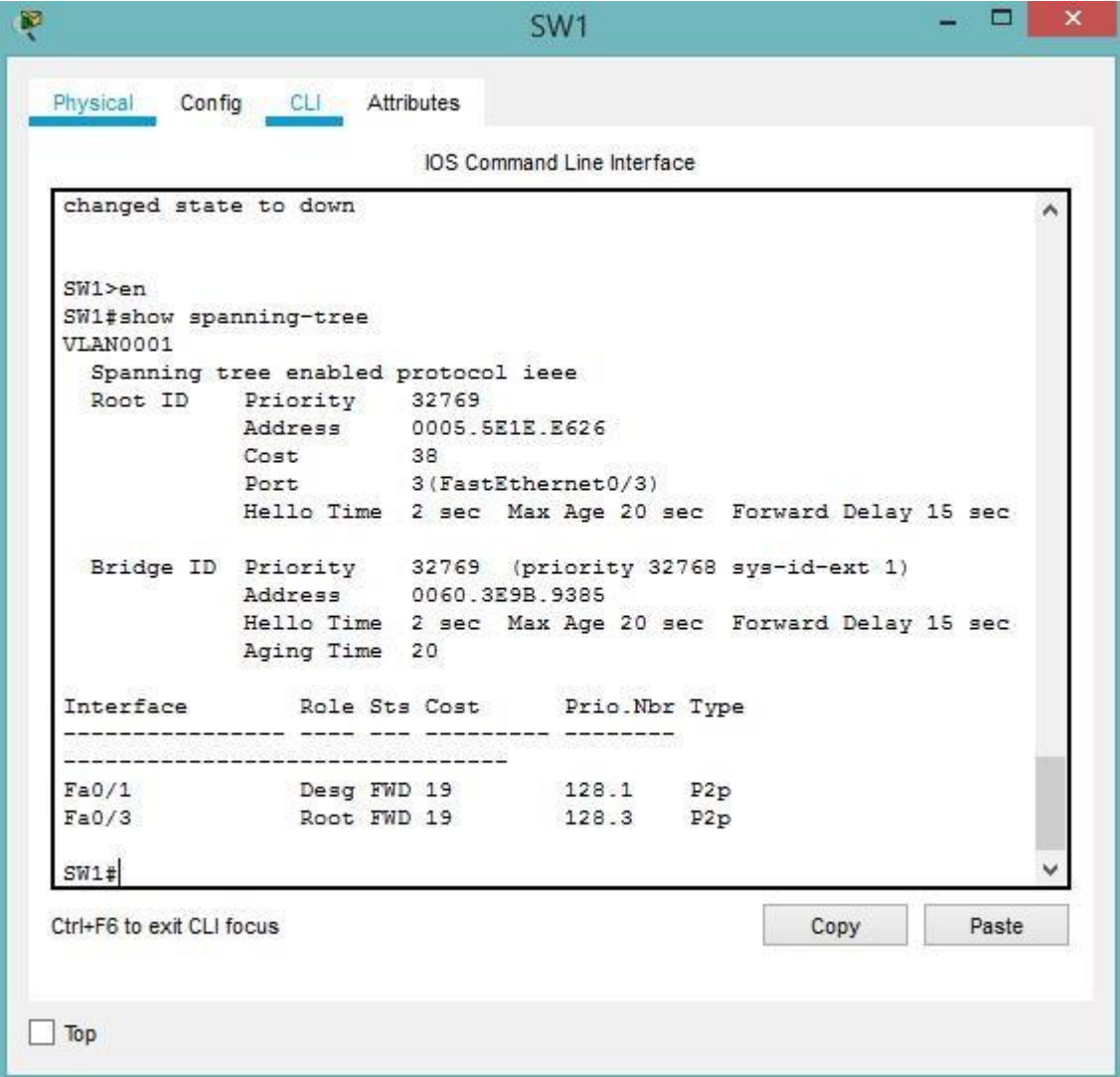
### Kegiatan 2. Topologi 2





## Tugas 9A:

### SW1



The screenshot shows a network simulator window titled "SW1". It has four tabs: "Physical", "Config", "CLI", and "Attributes". The "CLI" tab is active, displaying the "IOS Command Line Interface". The command history shows the user entering "en" to enter enable mode, followed by "show spanning-tree" for VLAN0001. The output displays spanning tree details for the root and bridge, including priority, address, cost, port, and timers. A table at the bottom shows the roles of interfaces Fa0/1 and Fa0/3.

```
changed state to down

SW1>en
SW1#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
    Root ID    Priority    32769
              Address     0005.5E1E.E626
              Cost        38
              Port        3 (FastEthernet0/3)
              Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec

    Bridge ID  Priority    32769 (priority 32768 sys-id-ext 1)
              Address     0060.3E9B.9385
              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          Root FWD 19        128.3    P2p

SW1#
```

Ctrl+F6 to exit CLI focus

Copy Paste

☐ Top

## SW2

Physical

Config

CLI

Attributes

SW2

IOS Command Line Interface

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3,
changed state to down

SW2#en
SW2#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
    Root ID    Priority    32769
              Address    0005.5E1E.E626
              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    0005.5E1E.E626
              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

SW2#
```

Ctrl+F6 to exit CLI focus

Copy

Paste

☐ Top

## SW3

The screenshot shows the CLI of switch SW3. The 'CLI' tab is selected. The command 'show spanning-tree' has been executed for VLAN0001. The output displays the spanning tree enabled protocol IEEE, the root ID (0005.5E1E.E626), and the bridge ID (0090.2BBC.D8B8). A table lists the interfaces and their roles in the spanning tree.

```

SW3>en
SW3#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
    Root ID    Priority    32769
              Address     0005.5E1E.E626
              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     0090.2BBC.D8B8
              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#

Ctrl+F6 to exit CLI focus

Copy Paste

☐ Top

## SW1

No	Variabel	Nilai
1	Root ID	0005.5E1E.E626
2	Priority	32769
3	Mac Address	0060.3E9B.9385
4	Bridge ID	0060.3E9B.9385

5	Cost(0/2;0/3)	19/19/19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

No	Variabel	Nilai
1	Root ID	0005.5E1E.E626
2	Priority	32769
3	Mac Address	0090.2BBC.D8B8
4	Bridge ID	0090.2BBC.D8B8
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	0005.5E1E.E626
2	Priority	32769
3	Mac Address	0005.5E1E.E626
4	Bridge ID	0005.5E1E.E626
5	Cost(0/2;0/3)	19/19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

**SW3 Root bridge : SW2**

**Designated bridge : SW3**

**Root port : SW1 (Fa0/3), SW3(Fa0/2)**

**Designated port : SW1(Fa0/1), SW2(Fa0/1;Fa0/2), SW3(Fa0/1;Fa0/3)**

**Forwarding : SW1(Fa0/1;Fa0/3), SW2(Fa0/1;Fa0/2), SW3(Fa0/1;Fa0/2;Fa0/3)**

**Blocking : None**