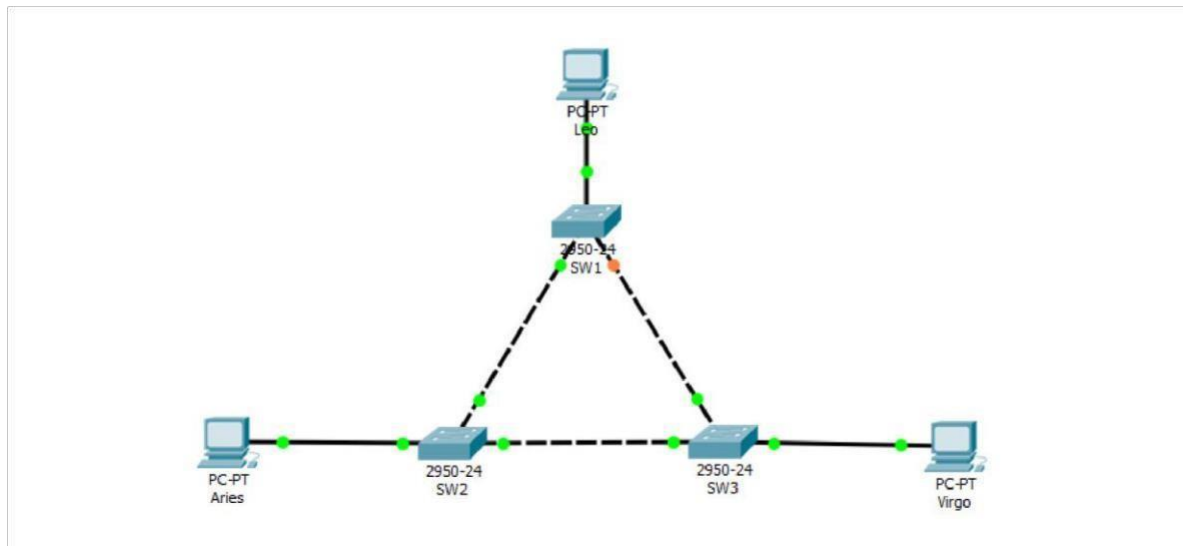


Nama : Kemas Muhammad Kevin
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Kelas : E

Kegiatan 1. Topologi 1

Membuat topologi



Tugas 1A : Langkah pembuatan topologi

- Pada bagian Network Devices, klik bagian Switches, dan letakkan 3 buah Switch tipe 2950-24 dengan rangkai seperti gambar.
- Klik ikon End Devices, klik ikon PC dengan keterangan Generic Computer, letakkan 3 buah di dekat Switch masing-masing satu.
- Untuk menghubungkan Switch dan PC, pada bagian Connections klik ikon petir, lalu sambungkan rangkaian.

Tugas 2A : Memberi nama Switch melalui mode user

```
Switch>enable
```

```
Switch#conf term
```

```
Switch(config)#hostname SW1
```

```
SW1(config)#end
```

Konfigurasi masing-masing PC

- Leo

The screenshot shows the 'Leo' configuration window with the 'Config' tab selected. The 'IP Configuration' section is active, showing 'Static' as the selected option. The IP Address is 172.21.1.1, Subnet Mask is 255.255.0.0, Default Gateway is 0.0.0.0, and DNS Server is 0.0.0.0. The 'IPv6 Configuration' section shows 'Static' as the selected option, with a Link Local Address of FE80::2D0:58FF:FE36:9368. A 'Top' button is located at the bottom left.

IP Configuration	
<input type="radio"/> DHCP	<input checked="" type="radio"/> Static
IP Address	172.21.1.1
Subnet Mask	255.255.0.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0

IPv6 Configuration		
<input type="radio"/> DHCP	<input type="radio"/> Auto Config	<input checked="" type="radio"/> Static
IPv6 Address		
Link Local Address	FE80::2D0:58FF:FE36:9368	
IPv6 Gateway		
IPv6 DNS Server		

☐ Top

- Aries

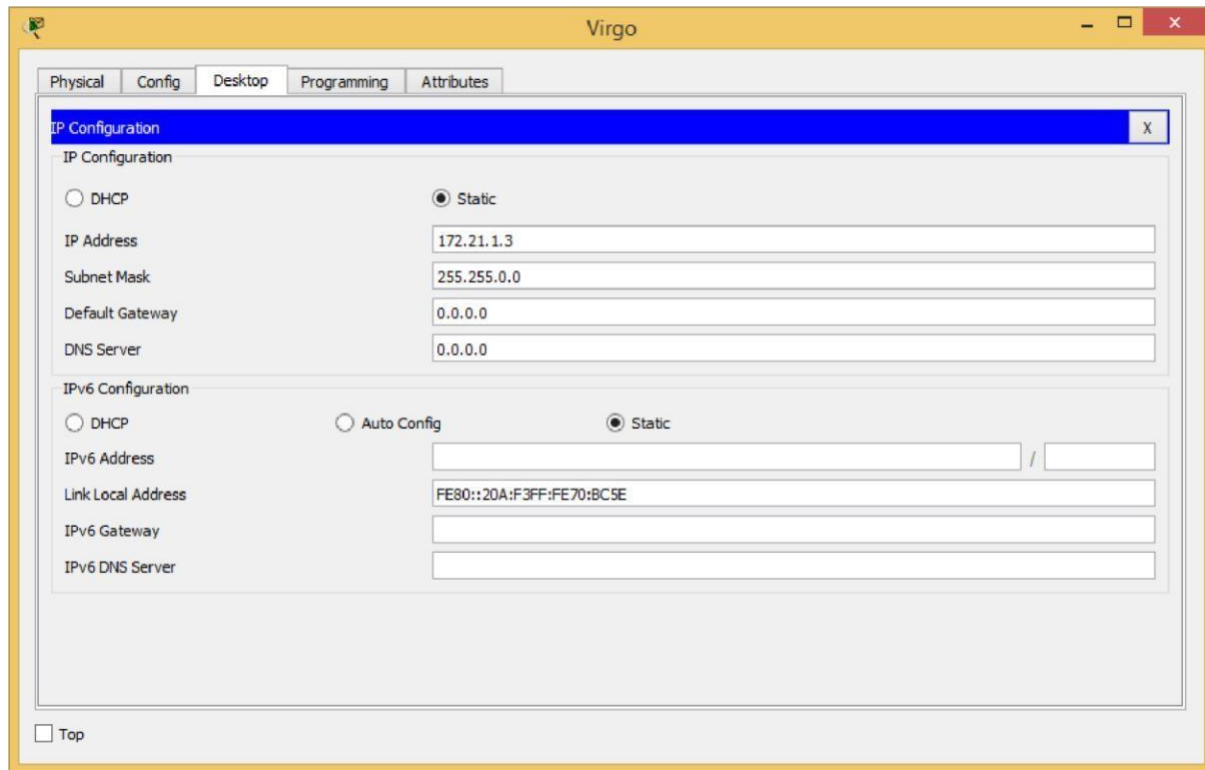
The screenshot shows the 'Aries' configuration window with the 'Config' tab selected. The 'IP Configuration' section is active, showing 'Static' as the selected option. The IP Address is 172.21.1.2, Subnet Mask is 255.255.0.0, Default Gateway is 0.0.0.0, and DNS Server is 0.0.0.0. The 'IPv6 Configuration' section shows 'Static' as the selected option, with a Link Local Address of FE80::230:F2FF:FEE9:861E. A 'Top' button is located at the bottom left.

IP Configuration	
<input type="radio"/> DHCP	<input checked="" type="radio"/> Static
IP Address	172.21.1.2
Subnet Mask	255.255.0.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0

IPv6 Configuration		
<input type="radio"/> DHCP	<input type="radio"/> Auto Config	<input checked="" type="radio"/> Static
IPv6 Address		
Link Local Address	FE80::230:F2FF:FEE9:861E	
IPv6 Gateway		
IPv6 DNS Server		

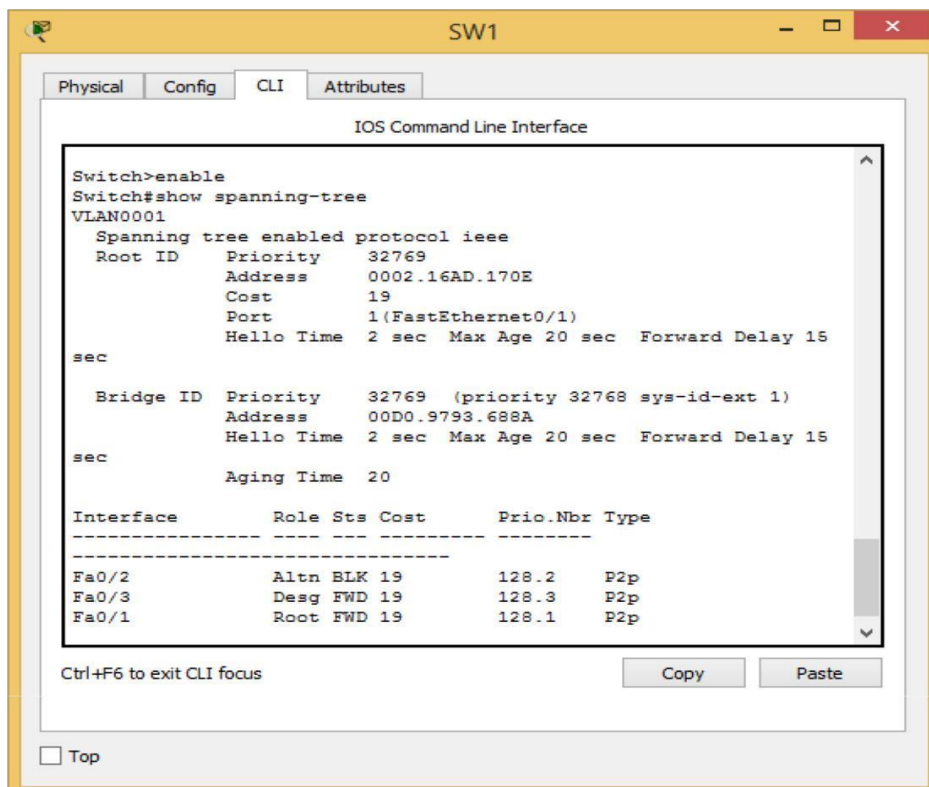
☐ Top

- Virgo

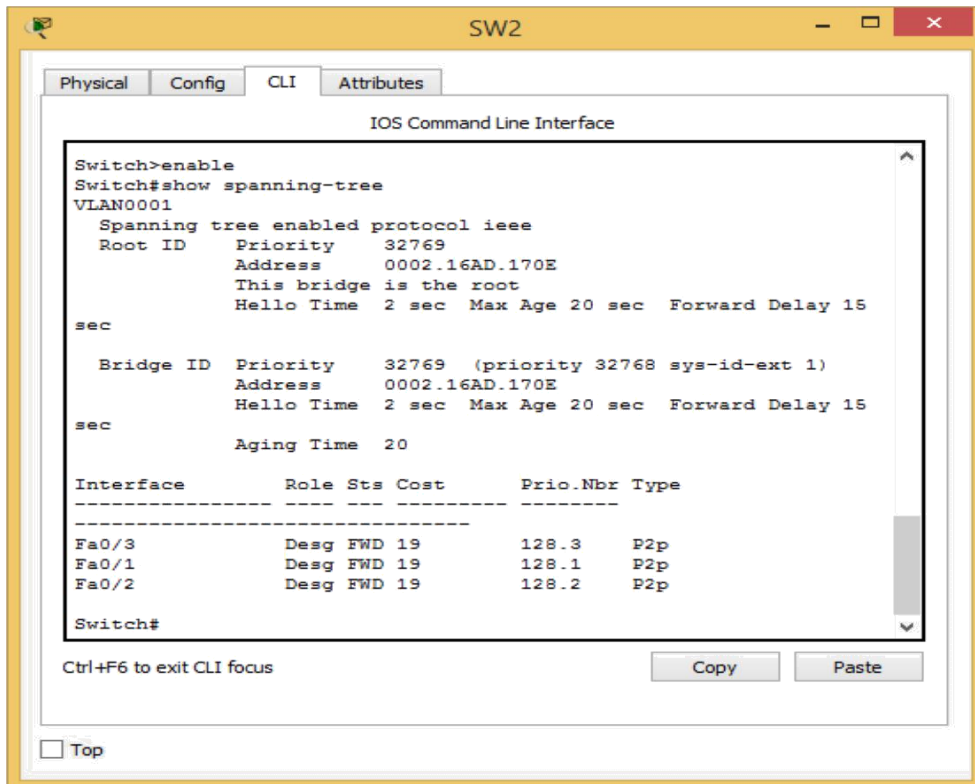


Tugas 4A : Pada mode *user* atau *privileged*, lihat status STP pada masing-masing switch.

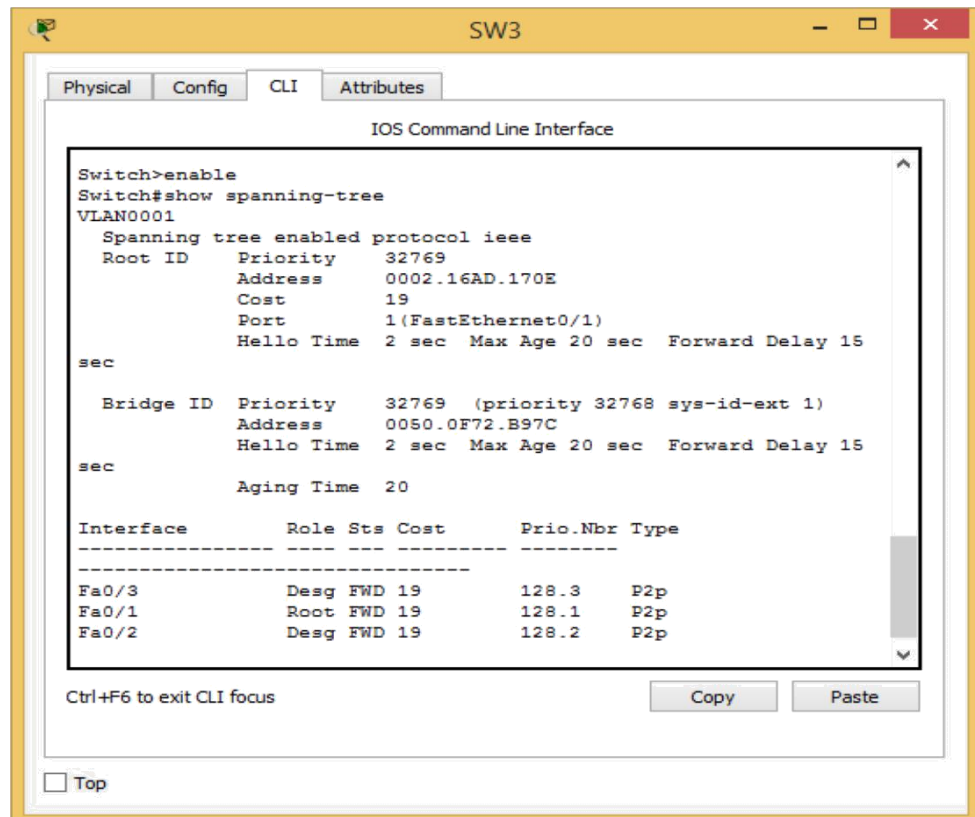
- SW1



- SW2



- SW3



Tugas 4B : Tabel tiap switch

- SW1

No	Variabel	Nilai
1	Root ID	32769 : 0002.16AD.170E
2	Priority	32769
3	MAC Address	00D0.9793.688A
4	Bridge ID	32769 : 00D0.9793.688A
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 : 0002.16AD.170E
2	Priority	32769
3	MAC Address	0002.16AD.170E
4	Bridge ID	32769 : 0002.16AD.170E
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 : 0002.16AD.170E
2	Priority	32769
3	MAC Address	0050.0F72.B97C
4	Bridge ID	32769 : 0050.0F72.B97C
5	Cost (0/1 ; 0/2 ; 0/3)	19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

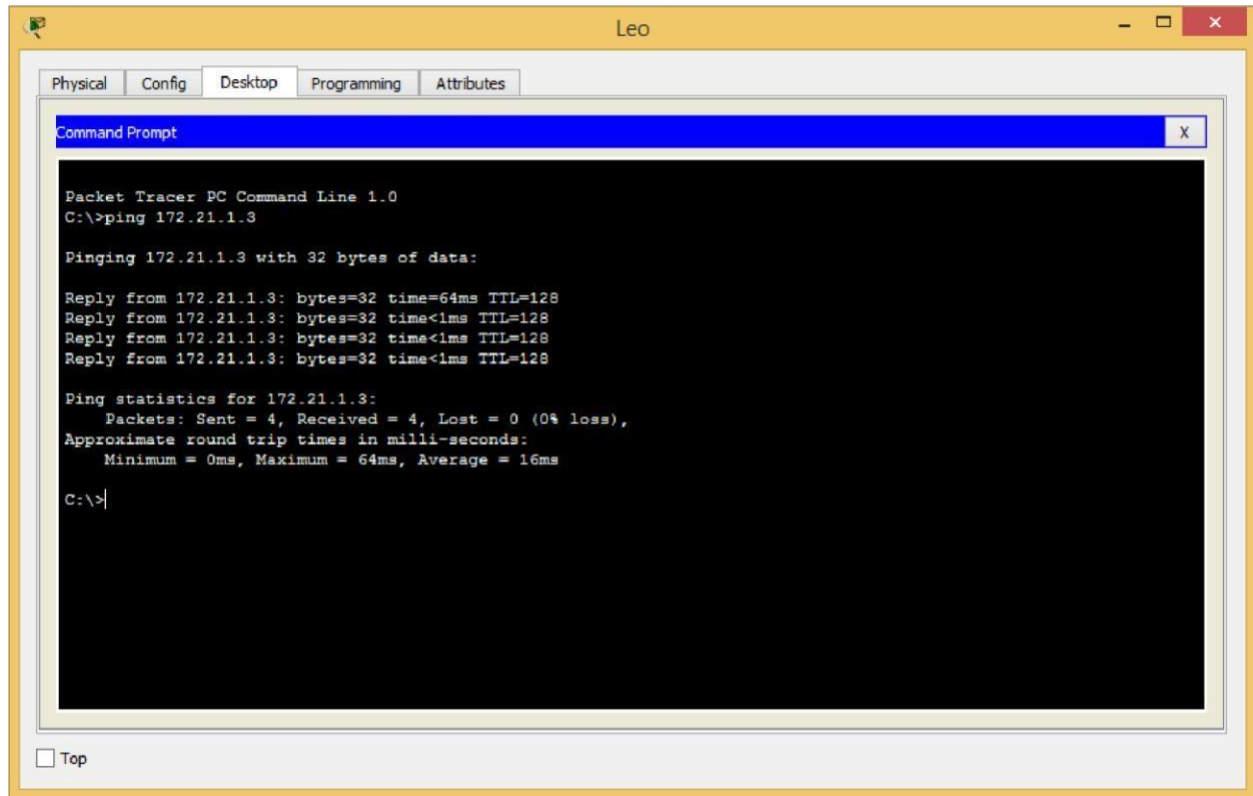
Tugas 4C :

- Root bridge : SW2
- Designated bridge : SW3
- Root port : SW1 (Fa0/1), SW3 (Fa0/1)
- Designated port : SW1 (Fa0/3), SW2 (Fa0/1, Fa0/2, Fa0/3), SW3 (Fa0/2, Fa0/3)

Tugas 4D :

- Keadaan forwarding :
 - SW1 (Fa0/1, Fa0/3),
 - SW2 (Fa0/1, Fa0/2, Fa0/3),
 - SW3 (Fa0/1, Fa
- Keadaan Blocking : SW1 (Fa0/2)

PC Leo melakukan ping ke PC Virgo

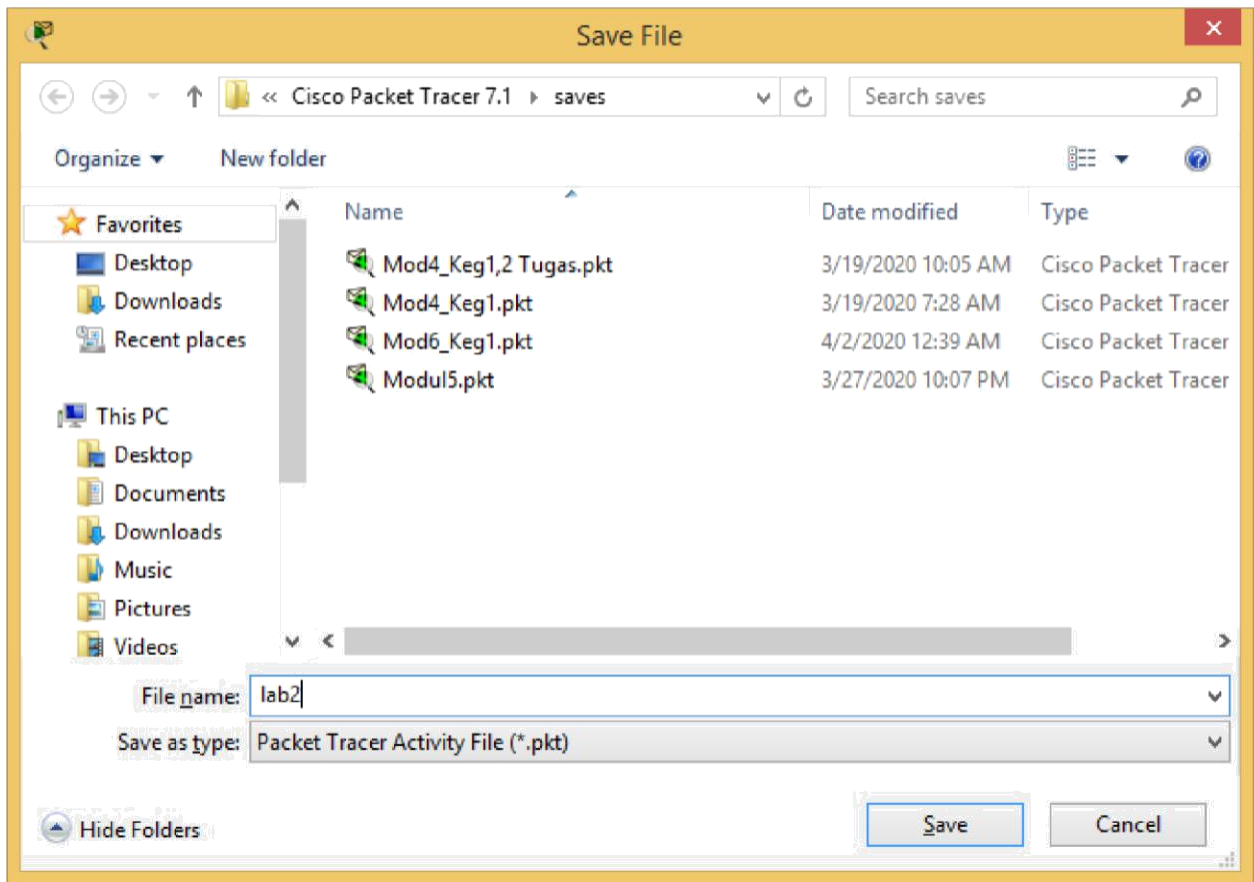


Tugas 5A : Langkah perintah ping

1. Klik PC Leo
2. Pilih tab desktop
3. Pilih command prompt
4. Ketikkan ping 172.21.1.3

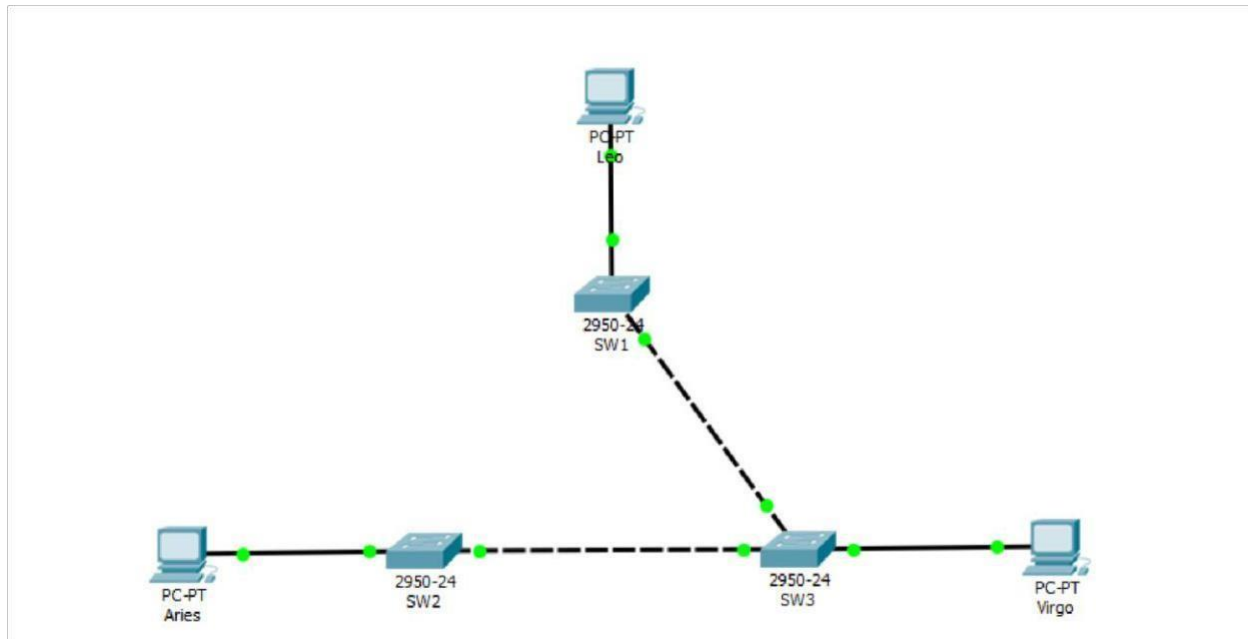
Tugas 6A : Langkah menyimpan konfigurasi jaringan

1. Klik File
2. Pilih Save
3. Beri nama lab2.ekstensi akan menyesuaikan dengan aplikasi yg digunakan



Kegiatan 2. Topologi 2

Membuat topologi



Tugas 9A : Status STP masing-masing switch

- SW1

```
SW1
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     0001.4306.C9DE
            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     0001.4306.C9DE
            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
Switch#
```

No	Variabel	Nilai
1	Root ID	32769 : 0001.4306.C9DE
2	Priority	32769
3	MAC Address	0001.4306.C9DE
4	Bridge ID	32769 : 0001.4306.C9DE
5	Cost	19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

- SW2

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     0001.4306.C9DE
              Cost       38
              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     0040.0B72.1317
              Hello Time 2 sec   Max Age 20 sec   Forward Delay 15
sec

              Aging Time 20

Interface      Role Sts Cost      Prio.Nbr Type
-----
Fa0/1          Root FWD 19        128.1    P2p
Fa0/2          Desg FWD 19        128.2    P2p
Switch#

```

Ctrl+F6 to exit CLI focus
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☐ Top

No	Variabel	Nilai
1	Root ID	32769 : 0001.4306.C9DE
2	Priority	32769
3	MAC Address	0040.0B72.1317
4	Bridge ID	32769 : 0040.0B72.1317
5	Cost	19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

- SW3

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    0001.4306.C9DE
             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    00D0.D304.0971
             Hello Time 2 sec  Max Age 20 sec  Forward Delay 15
sec

             Aging Time 20

Interface      Role Sts Cost      Prio.Nbr Type
-----
Fa0/1          Root FWD 19        128.1    P2p
Fa0/3          Desg FWD 19        128.3    P2p
Fa0/2          Desg FWD 19        128.2    P2p
Switch#

```

Ctrl+F6 to exit CLI focus

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☐ Top

No	Variabel	Nilai
1	Root ID	32769 : 0001.4306.C9DE
2	Priority	32769
3	MAC Address	00D0.D304.0971
4	Bridge ID	32769 : 00D0.D304.0971
5	Cost	19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

Menentukan :

- Root bridge : SW1
- Designated bridge : SW3
- Root Port : SW2 (Fa0/1), SW3(Fa0/1)
- Designated Port : SW1 (Fa0/1, Fa0/2), SW2 (Fa0/2), SW3 (Fa0/2, Fa0/3)

Menentukan :

- Keadaan forwarding :
 - SW1 (Fa0/1, Fa0/2)
 - SW2 (Fa0/1, Fa0/2)
 - SW3 (Fa0/1, Fa0/2, Fa0/3)
- Keadaan blocking : tidak ada

Ping PC Leo ke PC Virgo

