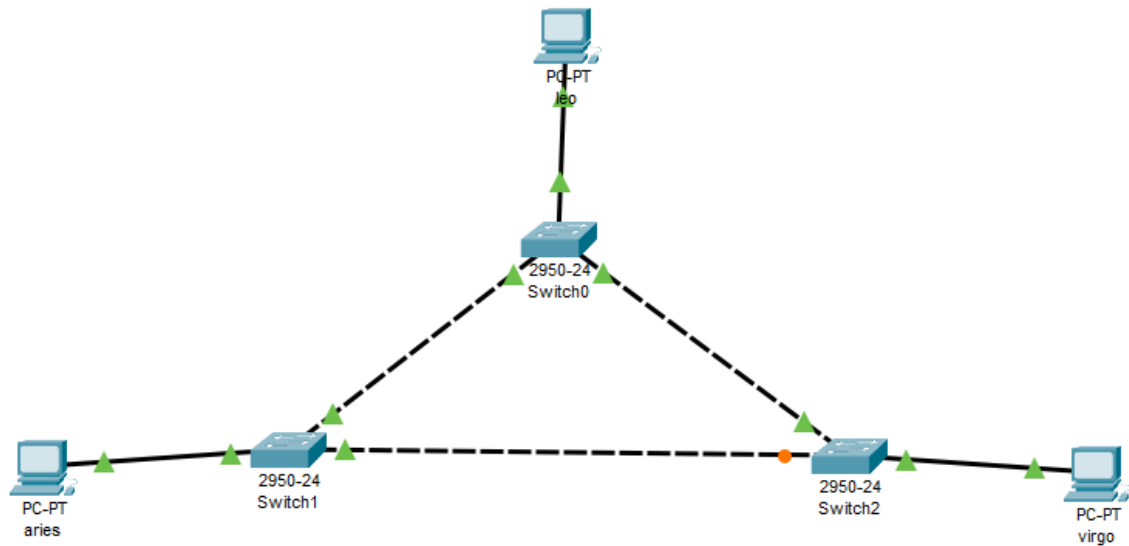


Nama : Sang Aji Indutoro
NIM : L200180003

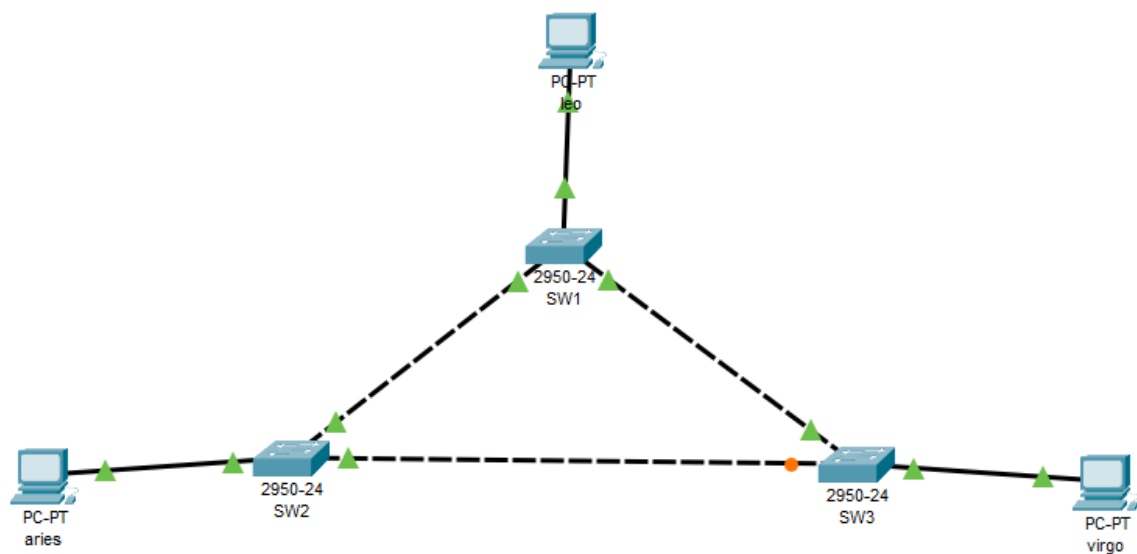
Kegiatan 1. Topologi 1



Tugas 1A : Tulis langkah pembuatan topologi

Jawab :

Pembuatan topologi ini menggunakan 3 buah switch 2950-24 yang saling terhubung. Setiap switch dihubungkan dengan 1 PC. Switch0 dengan PC Leo, switch1 dengan PC aries, dan switch2 dengan PC Virgo.

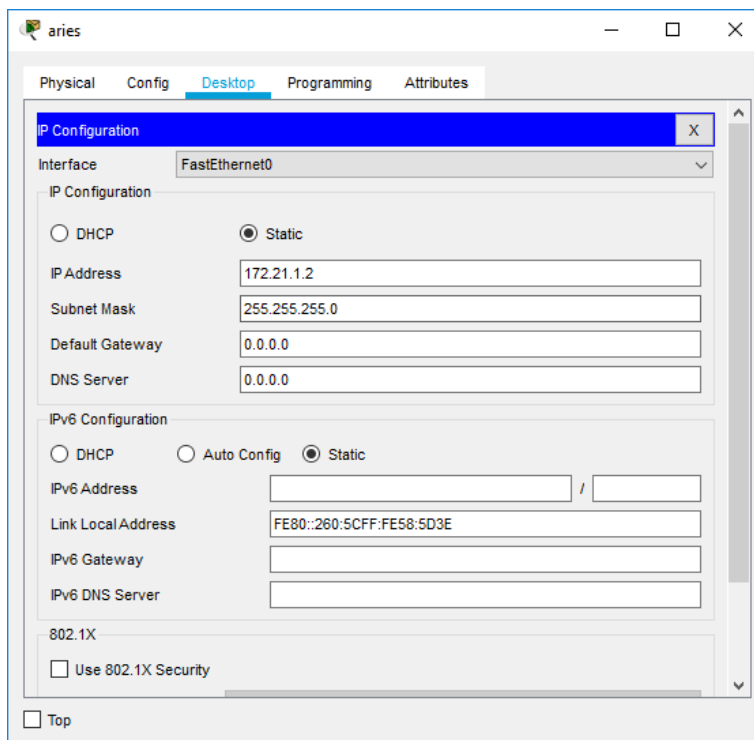
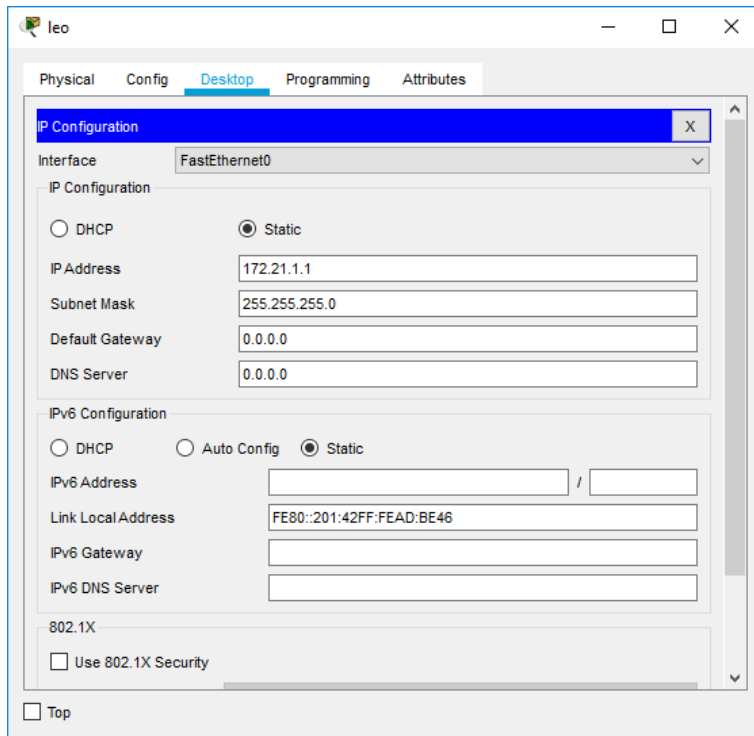


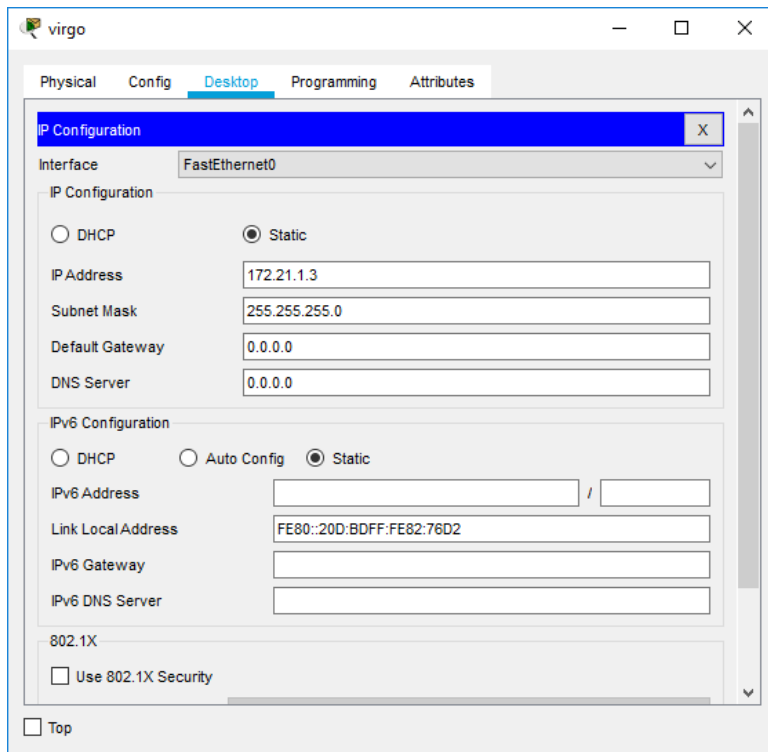
Tugas 2A : Tulis langkah pemberian nama switch mulai dari mode user

Jawab :

Klik switch0, kemudian ubah nama menjadi SW1, switch1 diubah nama menjadi SW2, dan switch2 diubah nama menjadi SW3.

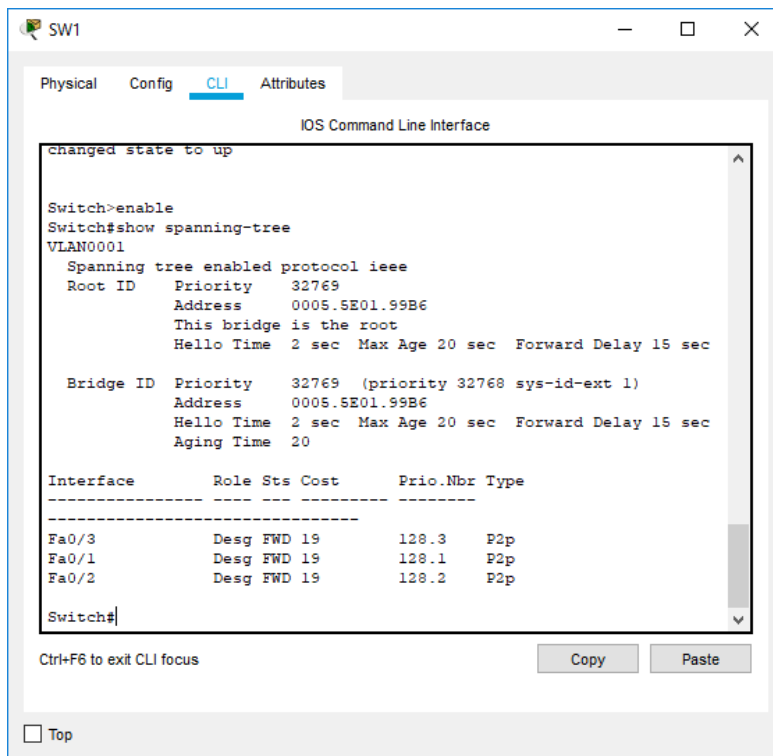
Konfigurasi masing-masing PC





Melihat status STP pada masing-masing switch

Tugas 4A : pada kondisi default, capture masing-masing tampilan status STP switch



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 0005.5E01.99B6
 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 0007.EC19.A896
 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
Fa0/3 Desg FWD 19 128.3 P2p
Fa0/1 Root FWD 19 128.1 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 0005.5E01.99B6
 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.CF67.ED7C
 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
Fa0/2 Root FWD 19 128.2 P2p
Fa0/1 Altn BLK 19 128.1 P2p

Switch#

Ctrl+F6 to exit CLI focus

Copy

Paste

☐ Top

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

SW1

No	Variabel	Nilai
1	Root ID	32769, 0005.5E01.99B6
2	Priority	32769
3	MAC Address	0005.5E01.99B6
4	Bridge ID	32769
5	Cost (0/1;0/2;0/3)	Fa0/3: Desg; FWD; 19; 128.3; P2p Fa0/1: Desg; FWD; 19; 128.1; P2p Fa0/2: Desg; FWD; 19; 128.2; P2p
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

SW2

No	Variabel	Nilai
1	Root ID	32769, 0005.5E01.99B6
2	Priority	32769
3	MAC Address	0005.5E01.99B6
4	Bridge ID	32769
5	Cost (0/1;0/2;0/3)	Fa0/2: Desg; FWD; 19; 128.2; P2p Fa0/3: Desg; FWD; 19; 128.3; P2p Fa0/1: Root; FWD; 19; 128.1; P2p
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

SW3

No	Variabel	Nilai
1	Root ID	32769, 0005.5E01.99B6
2	Priority	32769
3	MAC Address	0005.5E01.99B6
4	Bridge ID	32769
5	Cost (0/1;0/2;0/3)	Fa0/3: Desg; FWD; 19; 128.3; P2p Fa0/2: Root; FWD; 19; 128.2; P2p Fa0/1: Altn; BLK; 19; 128.1; P2p
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

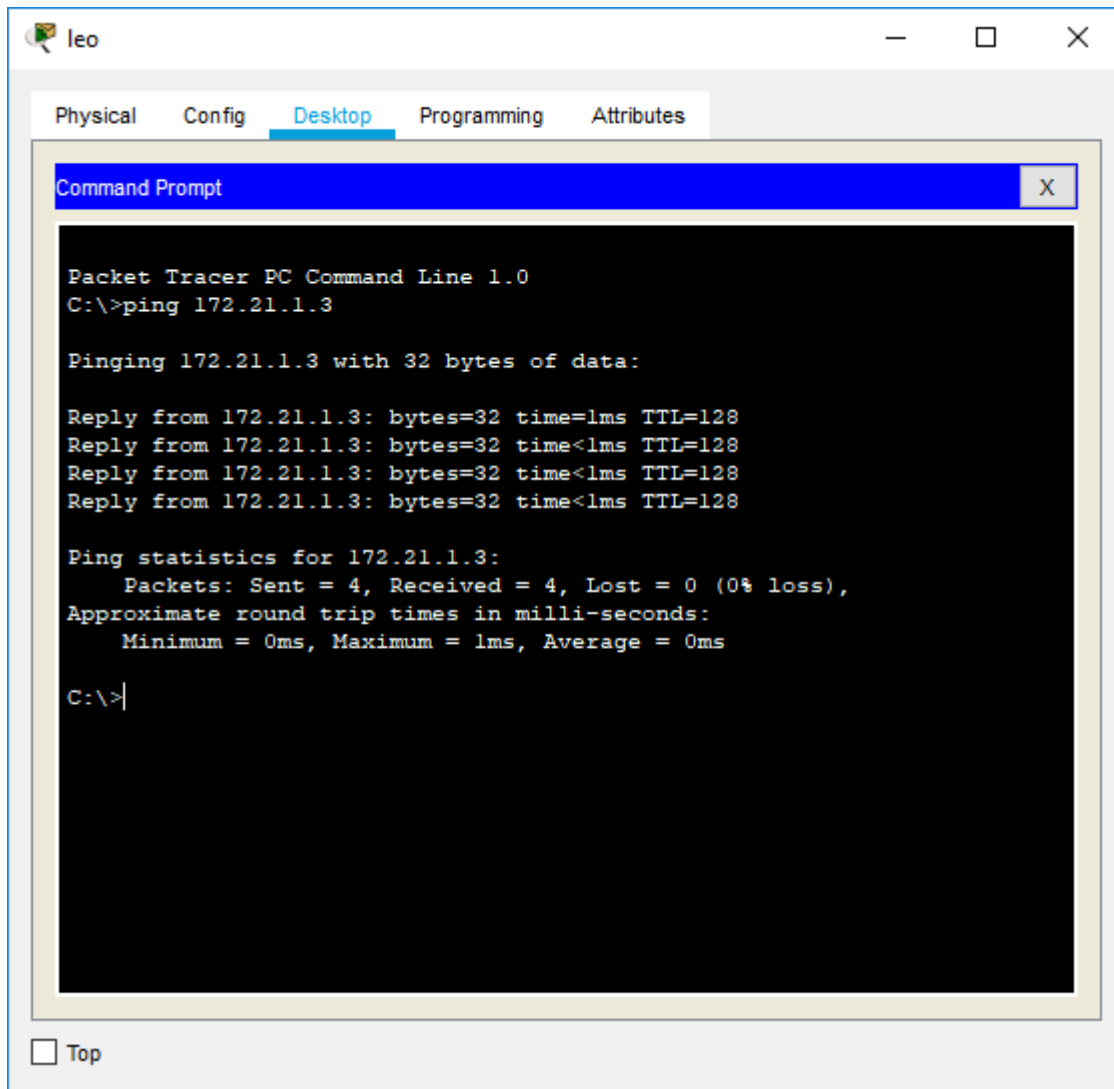
Tugas 4C : pada kondisi default tersebut, switch dan port mana saja yang :

- Menjadi root bridge : SW1
- Menjadi designated bridge : SW1
- Menjadi root port : SW2 fa01, SW3 fa0/2
- Menjadi designated port : SW1

Tugas 4D : Pada kondisi default tersebut, switch dan port mana saja yang :

- Forwarding : SW1 dan SW2
- Blocking : SW3 fa0/1

Ping dari PC Leo ke PC Virgo



Tugas 5A : Tulis langkah untuk melakukan perintah ping

Jawab :

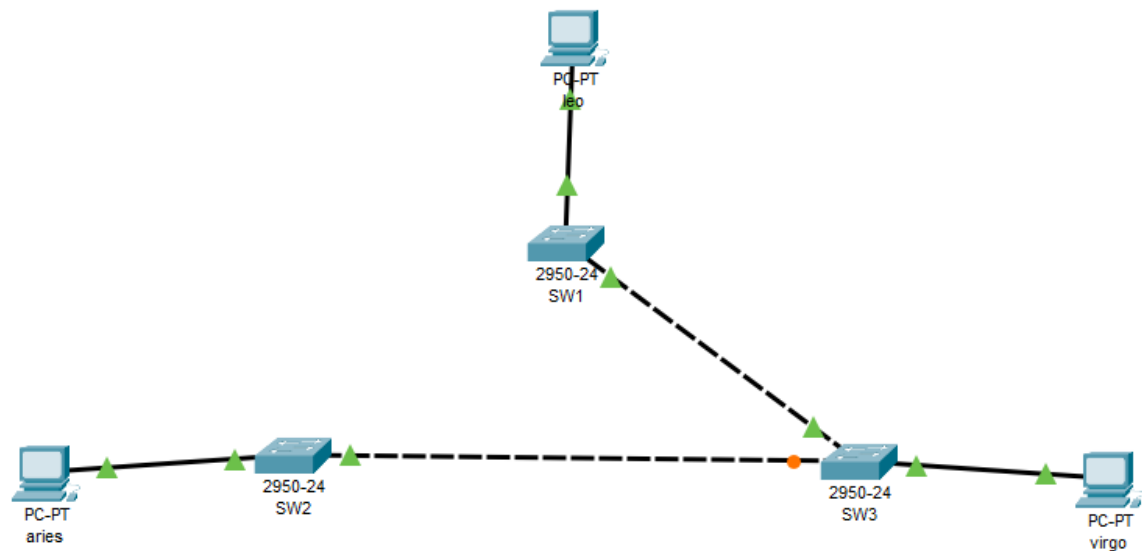
- Klik pada pc yang melakukan ping (PC LEO)
- Pilih menu desktop > Command Prompt
- Ketik ping **172.21.1.3**, kemudian enter

Tugas 6A : Tulis langkah untuk menyimpan konfigurasi jaringan dengan nama lab2.nwc

Jawab :

klik File > Save as > Pilih direktori > ketik "lab2.nwc" > Save

kegiatan 2. Topologi 2



Tugas 1A : Tulis langkah pembuatan topologi

Jawab :

Pembuatan topologi ini menggunakan 3 buah switch 2950-24. SW1 terhubung dengan SW3 dan SW2 terhubung dengan SW3. Setiap switch dihubungkan dengan 1 PC. SW1 dengan PC Leo, SW2 dengan PC aries, dan SW3 dengan PC Virgo.

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

Jawab :

Klik switch0, kemudian ubah nama menjadi SW1, switch1 diubah nama menjadi SW2, dan switch2 diubah nama menjadi SW3.

Konfigurasi masing-masing PC

leo

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IP Address 172.21.1.1

Subnet Mask 255.255.255.0

Default Gateway 0.0.0.0

DNS Server 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address /

Link Local Address FE80::201:42FF:FEAD:BE46

IPv6 Gateway

IPv6 DNS Server

802.1X

☐ Use 802.1X Security

☐ Top

aries

Physical Config **Desktop** Programming Attributes

IP Configuration X

Interface FastEthernet0

IP Configuration

☐ DHCP ☒ Static

IP Address 172.21.1.2

Subnet Mask 255.255.255.0

Default Gateway 0.0.0.0

DNS Server 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address /

Link Local Address FE80::260:5CFF:FE58:5D3E

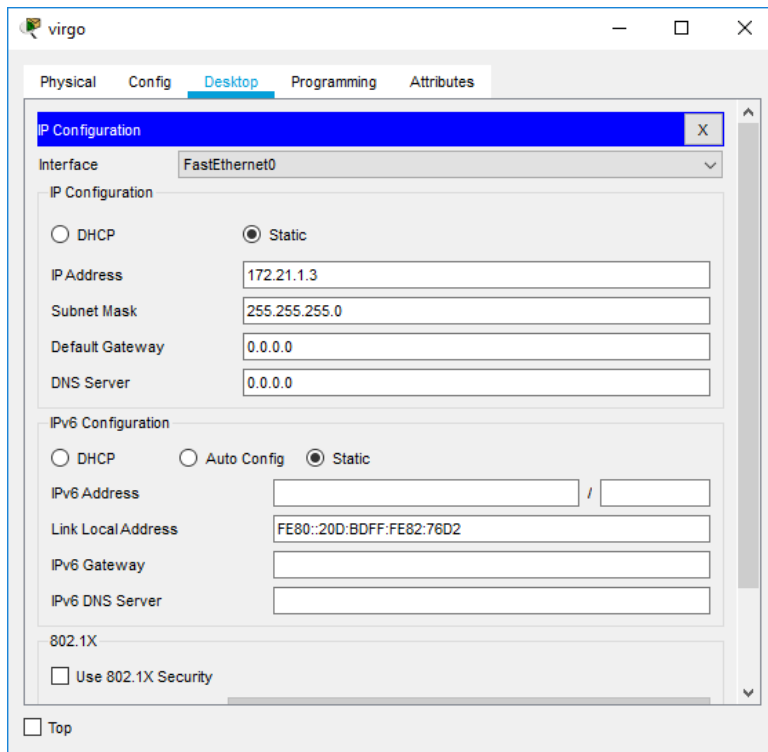
IPv6 Gateway

IPv6 DNS Server

802.1X

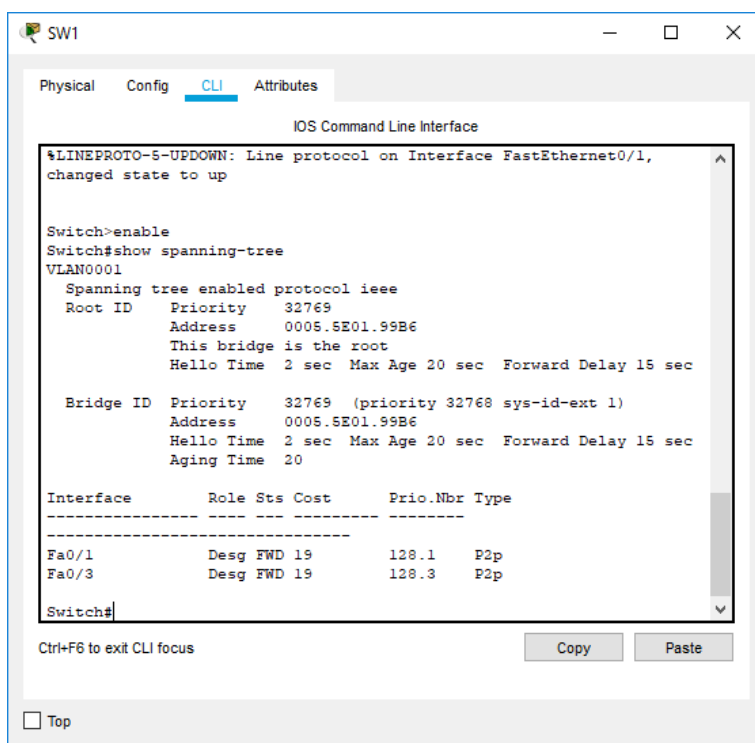
☐ Use 802.1X Security

☐ Top



Melihat status STP pada masing-masing switch

Tugas 4A : pada kondisi default, capture masing-masing tampilan status STP switch



SW2

Physical

Config

CLI

Attributes

IOS Command Line Interface

changed state to up

Switch>enable

Switch#show spanning-tree

VLAN0001

Spanning tree enabled protocol ieee

Root ID Priority 32769

Address 0005.5E01.99B6

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 0007.EC19.A896

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

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 0005.5E01.99B6

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.CF67.ED7C

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

Switch#

Ctrl+F6 to exit CLI focus

Copy

Paste

☐ Top

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

SW1

No	Variabel	Nilai
1	Root ID	32769, 0005.5E01.99B6
2	Priority	32769
3	MAC Address	0005.5E01.99B6
4	Bridge ID	32769
5	Cost (0/1;0/2;0/3)	Fa0/1: Desg; FWD; 19; 128.1; P2p Fa0/3: Desg; FWD; 19; 128.3; P2p
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

SW2

No	Variabel	Nilai
1	Root ID	32769, 0005.5E01.99B6
2	Priority	32769
3	MAC Address	0005.5E01.99B6
4	Bridge ID	32769
5	Cost (0/1;0/2;0/3)	Fa0/2: Root; FWD; 19; 128.2; P2p Fa0/3: Desg; FWD; 19; 128.3; P2p
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

SW3

No	Variabel	Nilai
1	Root ID	32769, 0005.5E01.99B6
2	Priority	32769
3	MAC Address	0005.5E01.99B6
4	Bridge ID	32769
5	Cost (0/1;0/2;0/3)	Fa0/1: Desg; FWD; 19; 128.1; P2p Fa0/3: Desg; FWD; 19; 128.3; P2p Fa0/2: Root; FWD; 19; 128.2; P2p
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

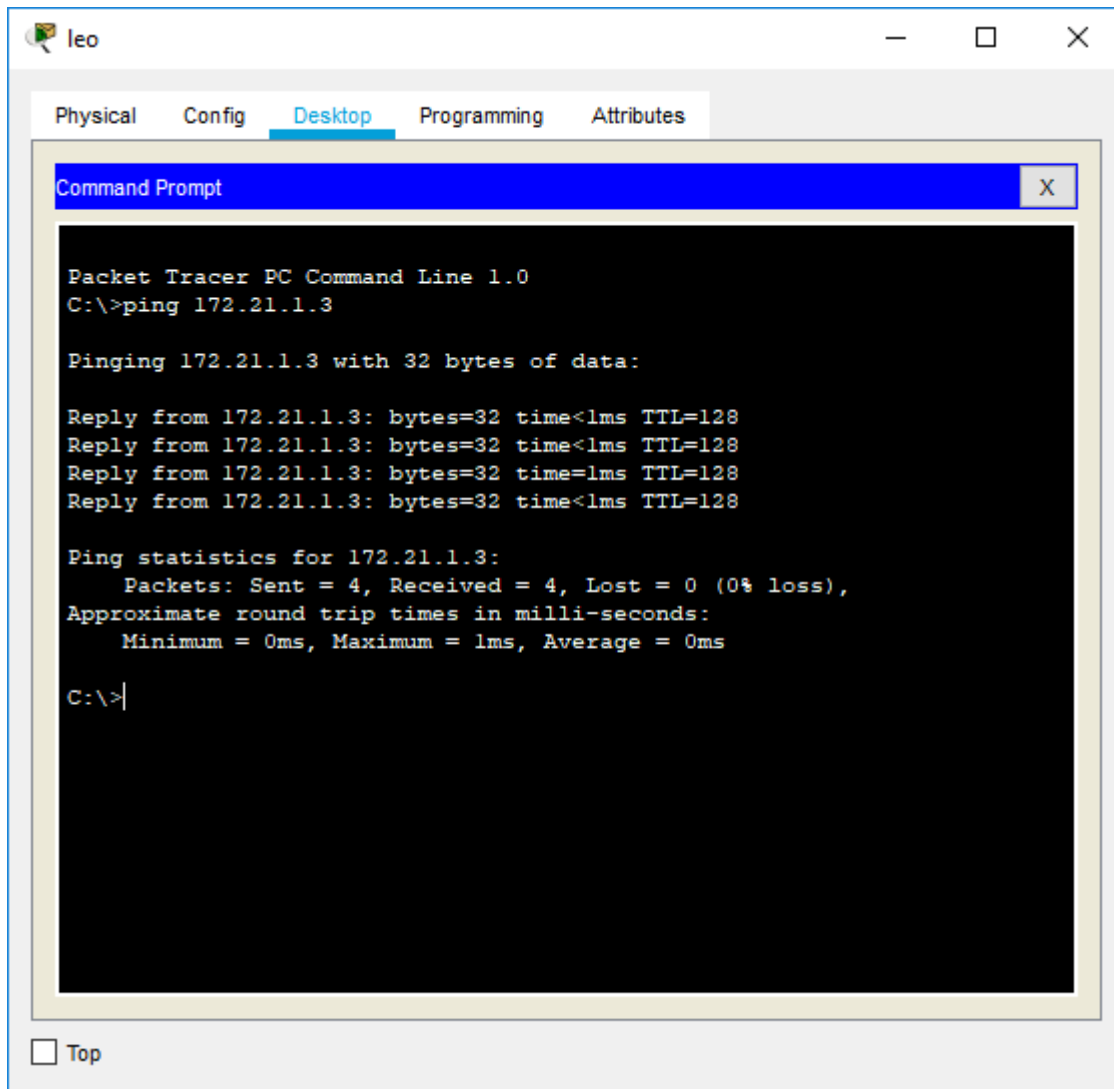
Tugas 4C : pada kondisi default tersebut, switch dan port mana saja yang :

- Menjadi root bridge : SW1
- Menjadi designated bridge : SW1
- Menjadi root port : SW2 fa02, SW3 fa0/2
- Menjadi designated port : SW1

Tugas 4D : Pada kondisi default tersebut, switch dan port mana saja yang :

- Forwarding : SW1, SW2, dan SW3
- Blocking : -

Ping dari PC Leo ke PC Virgo



The screenshot shows a Packet Tracer window for PC Leo. The 'Desktop' tab is selected, displaying a 'Command Prompt' window. The command prompt shows the execution of the 'ping 172.21.1.3' command, which is successful. The output indicates that 4 packets were sent and received with 0% loss, and the round trip times are all 0ms.

```
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<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
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 = 1ms, Average = 0ms

C:\>|
```

Tugas 5A : Tulis langkah untuk melakukan perintah ping

Jawab :

- Klik pada pc yang melakukan ping (PC LEO)
- Pilih menu desktop > Command Prompt
- Ketik ping **172.21.1.3**, kemudian enter