

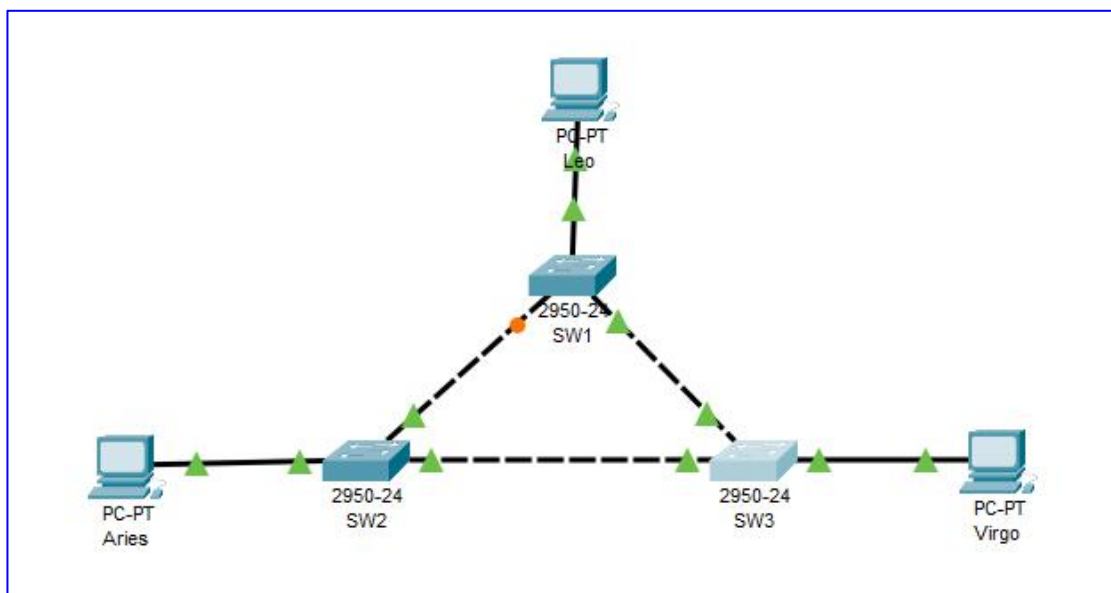
Nama : Bayu Aji Laksono
NIM : L200180089
Kelas : C

Modul 6

Kegiatan Praktikum

1. Kegiatan 1. Topologi 1

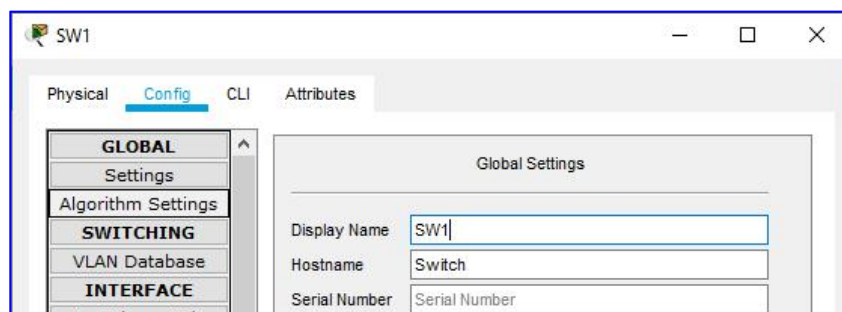
- a. Menggunakan PACKET TRACER buat topologi berikut ini dengan menggunakan switch Catalyst 2950.

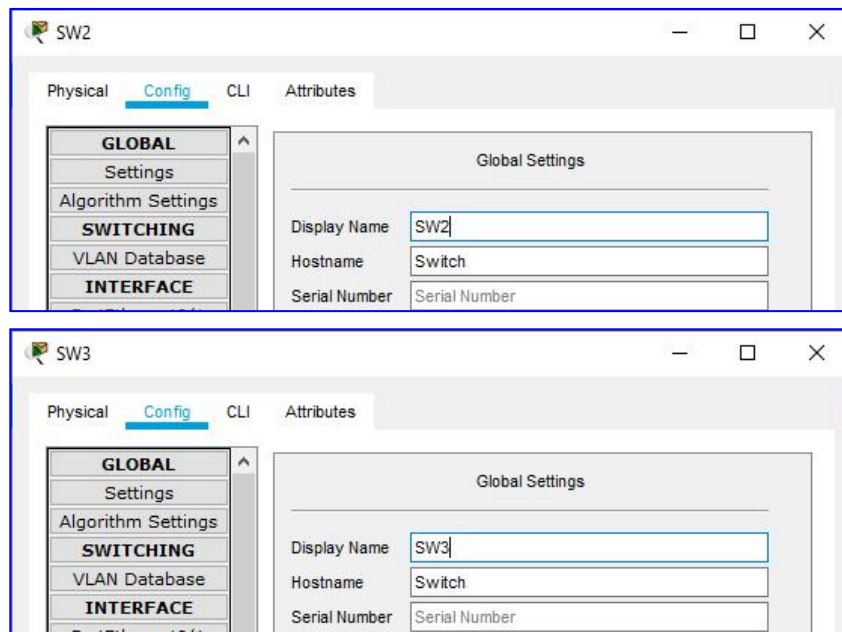


Tugas 1A: Tulis langkah pembuatan topologi.

- > - Masuk Cisco Packet Tracer
- Lalu masuk ke tab "Switches"
 - Pilih switch catalyst 2950 dan drag ke dalam cisco sebanyak 3 kali
 - Masuk ke tab "End Device"
 - Lalu pilih PC, setelah itu drag ke dalam cisco sebanyak 3 kali
 - Mengganti nama sesuai keinginan dan mengisi IP Address tiap PC
 - Terakhir hubungkan dengan kabel

- b. Beri nama masing - masing switch dengan SW1,SW2,dan SW3





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

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

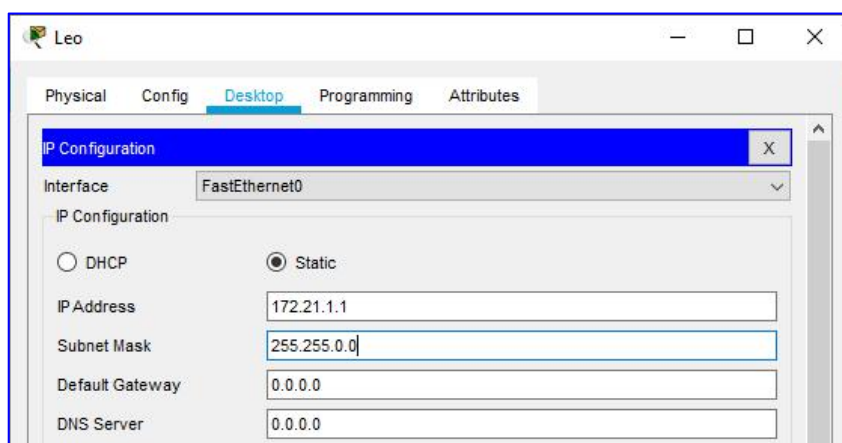
Enter configuration commands, one per line. End with CNTL/Z.

Switch(config)#hostname SW3

SW3(config)#end

c. Konfigurasi masing - masing PC dengan alamat IP:

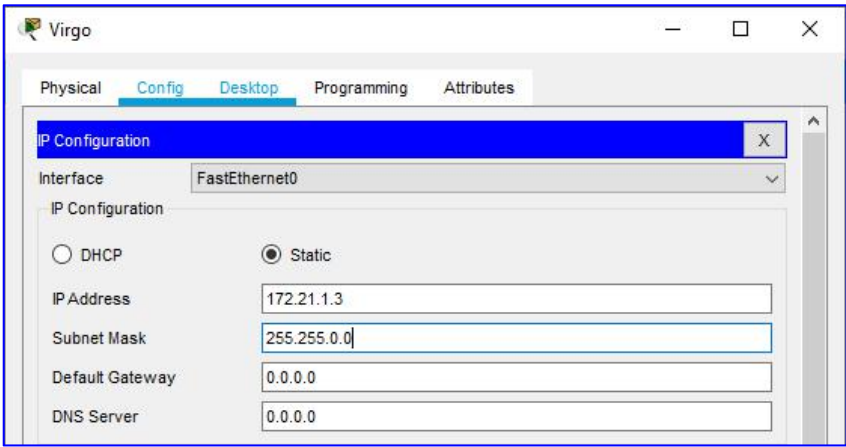
- Leo = 172.21.1.1/24



- Aries = 172.21.1.2/24

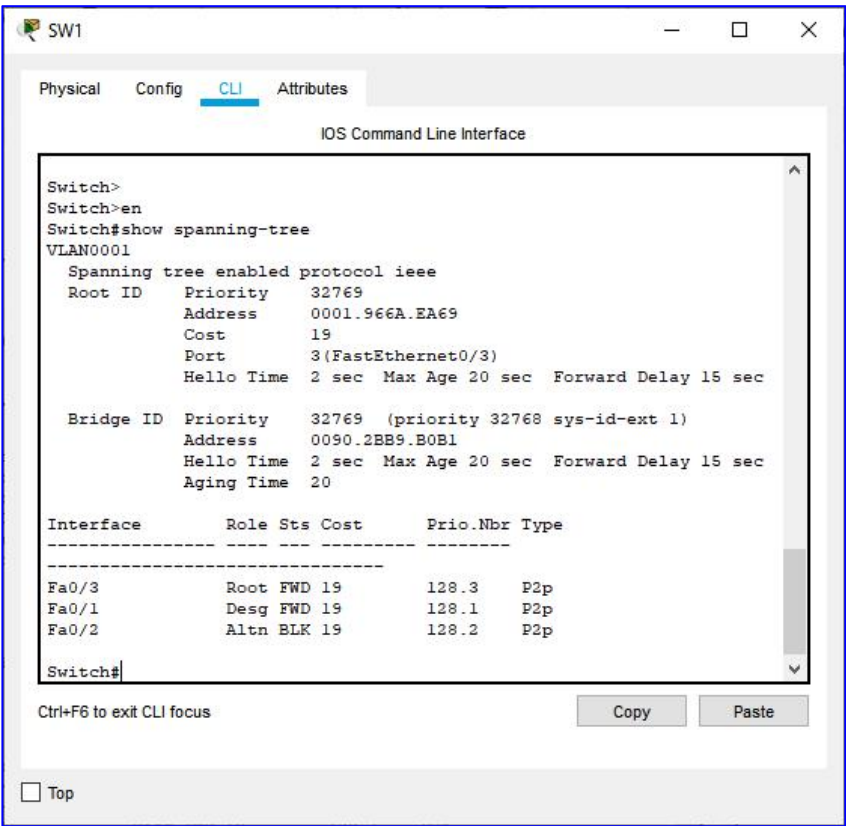


- Virgo = 172.21.1.3/24



d. Pada mode user atau mode privileged, lihat status STP pada masing - masing switch.

Tugas 4A : Pada kondisi default, capture masing - masing tampilan status STP switch(SW1,SW2, dan SW3).



SW2

PhysicalConfigCLIAttributes

IOS Command Line Interface

Switch>

Switch>en

Switch#show spanning-tree

VLAN0001

Spanning tree enabled protocol ieee

Root ID Priority 32769

Address 0001.966A.EA69

Cost 19

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 0010.11EE.0569

Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec

Aging Time 20

Interface Role Sts Cost Prio.Nbr Type

Fa0/3 Root FWD 19 128.3 P2p

Fa0/1 Desg FWD 19 128.1 P2p

Fa0/2 Desg FWD 19 128.2 P2p

Switch#

Ctrl+F6 to exit CLI focus

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SW3

PhysicalConfigCLIAttributes

IOS Command Line Interface

Switch>

Switch>en

Switch#show spanning-tree

VLAN0001

Spanning tree enabled protocol ieee

Root ID Priority 32769

Address 0001.966A.EA69

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 0001.966A.EA69

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

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

SW1

No	Variable	Nilai
1	Root ID	32769:0001.966A.EA69
2	Priority	32769
3	MAC Address	0090.2BB9.B0B1
4	Bridge ID	32769:0090.2BB9.B0B1
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	Variable	Nilai
1	Root ID	32769:0001.966A.EA69
2	Priority	32769
3	MAC Address	0010.11EE.0569
4	Bridge ID	32769:0010.11EE.0569
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	Variable	Nilai
1	Root ID	32769:0001.966A.EA69
2	Priority	32769
3	MAC Address	0001.966A.EA69
4	Bridge ID	32769:0001.966A.EA69
5	Cost (0/1;0/2;0/3)	19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

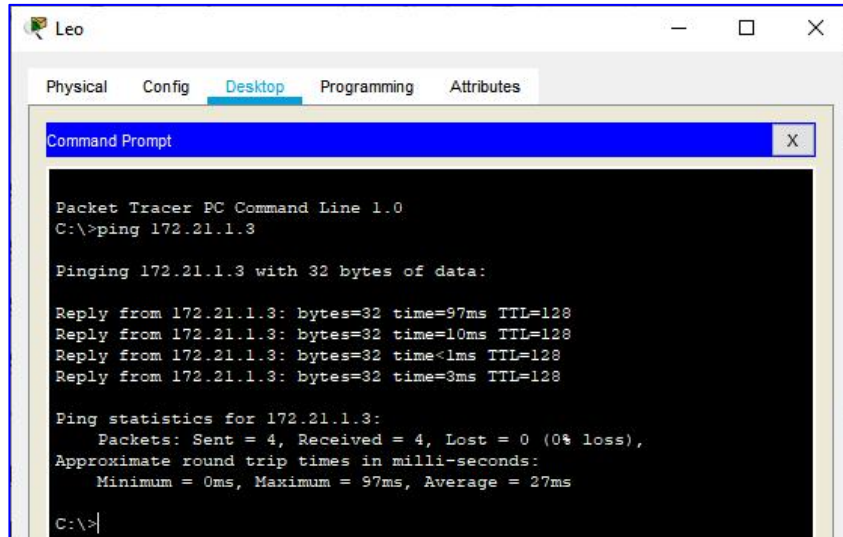
Tugas 4C : Pada kondisi default tersebut, switch dan port mana saja yang:

- Menjadi *root bridge* : SW3
- Menjadi *designated bridge* : SW2
- Menjadi *root port* :SW1(Fa0/3) dan SW2(Fa0/3)
- Menjadi *designated port* : SW1(Fa0/1), SW2(Fa0/1;0/2), dan SW3(Fa0/1;0/2;0/3)

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

- Berada pada keadaan *forwarding* : SW1(Fa0/1;0/3), SW2(Fa0/1;0/2;0/3), dan SW3(Fa0/1;0/2;0/3).
- Berada pada keadaan *blocking* : SW1(Fa0/2)

e. Dari PC Leo lakukan ping ke PC Virgo.



Tugas 5A : Tulis langkah untuk melakukan perintah ping.

-->Klik pada PC awal (Leo) pilih tab desktop, pilih command prompt, kemudian ketikkan "ping" dan IP Address PC tujuan (ping 172.21.1.3).

f. Simpan konfigurasi jaringan dengan nama lab2.nwc

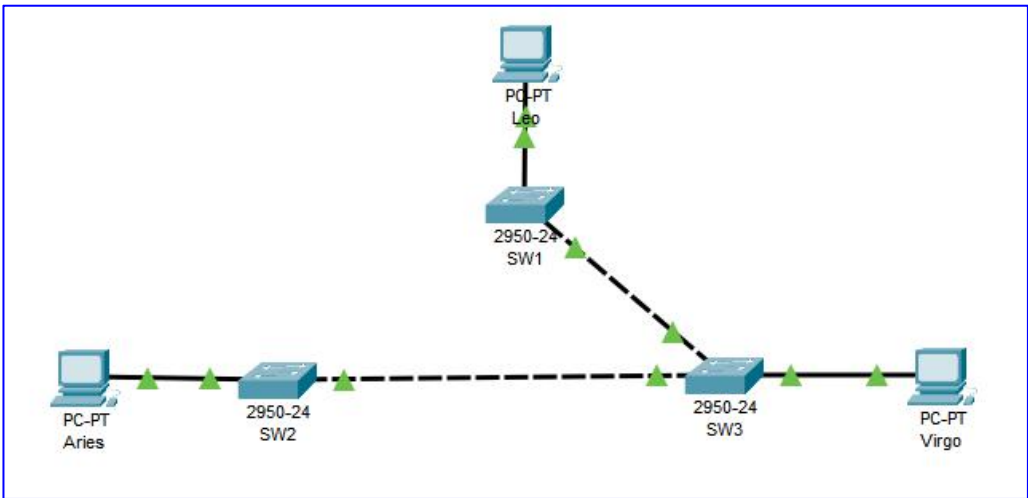
Tugas 6A : Tulis langkah untuk menyimpan konfigurasi jaringan.

-->Lakukan perintah dibawah untuk setiap switch

```
SW1>en
SW1#write
Building configuration...
[OK]
SW1#
SW1#
```

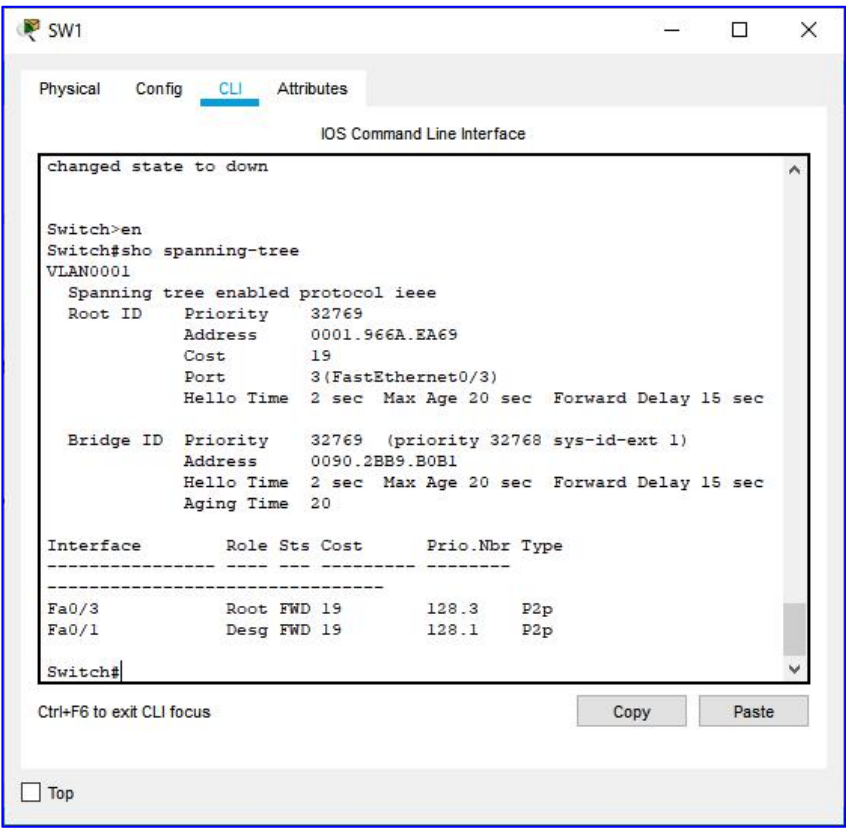
2. Kegiatan 2. Topologi 2

- a. Menggunakan PACKET TRACER ubah topologi menjadi seperti topologi berikut ini:



- d. Pada mode user atau mode privileged, lihat status STP pada masing - masing switch.

Tugas 4A : Pada kondisi default, capture masing - masing tampilan status STP switch(SW1,SW2, dan SW3).



SW2

PhysicalConfigCLIAttributes

IOS Command Line Interface

changed state to down

Switch>en

Switch#show spanning-tree

VLAN0001

Spanning tree enabled protocol ieee

Root ID Priority 32769

Address 0001.966A.EA69

Cost 19

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 0010.11EE.0569

Hello Time 2 sec Max Age 20 sec Forward Delay 15 sec

Aging Time 20

Interface Role Sts Cost Prio.Nbr Type

Fa0/3 Root FWD 19 128.3 P2p

Fa0/1 Desg FWD 19 128.1 P2p

Switch#

Ctrl+F6 to exit CLI focus

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SW3

PhysicalConfigCLIAttributes

IOS Command Line Interface

Switch>en

Switch#show spanning-tree

VLAN0001

Spanning tree enabled protocol ieee

Root ID Priority 32769

Address 0001.966A.EA69

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 0001.966A.EA69

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

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

SW1

No	Variable	Nilai
1	Root ID	32769:0001.966A.EA69
2	Priority	32769
3	MAC Address	0090.2BB9.B0B1
4	Bridge ID	32769:0090.2BB9.B0B1
5	Cost (0/1;0/3)	19
6	Hello Time	2 sec
7	MaxAge	20 sec

8	Forward Delay	15 sec
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SW2

No	Variable	Nilai
1	Root ID	32769:0001.966A.EA69
2	Priority	32769
3	MAC Address	0010.11EE.0569
4	Bridge ID	32769:0010.11EE.0569
5	Cost (0/1;0/3)	19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

SW3

No	Variable	Nilai
1	Root ID	32769:0001.966A.EA69
2	Priority	32769
3	MAC Address	0001.966A.EA69
4	Bridge ID	32769:0001.966A.EA69
5	Cost (0/1;0/2;0/3)	19
6	Hello Time	2 sec
7	MaxAge	20 sec
8	Forward Delay	15 sec

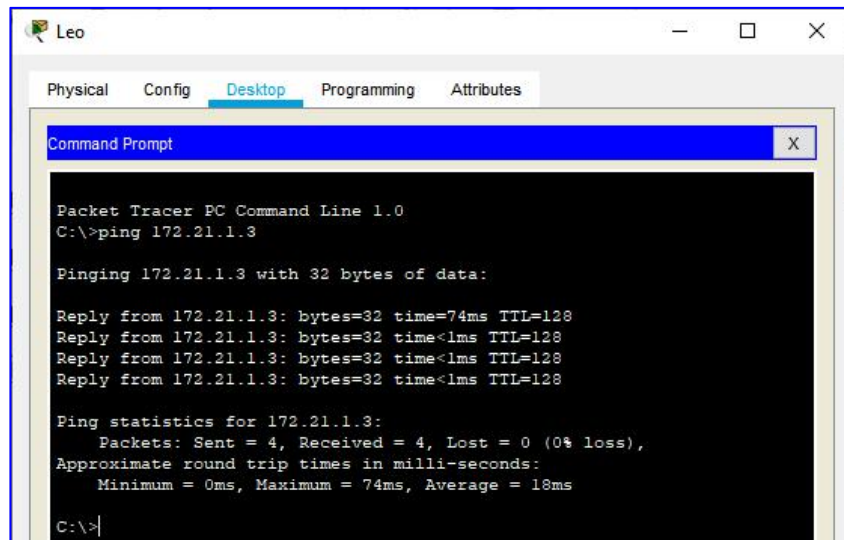
Tugas 4C : Pada kondisi default tersebut, switch dan port mana saja yang:

- Menjadi *root bridge* : SW3
- Menjadi *designated bridge* : SW2
- Menjadi *root port* :SW1(Fa0/3) dan SW2(Fa0/3)
- Menjadi *designated port* : SW1(Fa0/1), SW2(Fa0/1), dan SW3(Fa0/1;0/2;0/3)

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

- Berada pada keadaan *forwarding* : SW1(Fa0/1;0/3), SW2(Fa0/1;0/3), dan SW3(Fa0/1;0/2;0/3).
- Berada pada keadaan *blocking* : Tidak ada

e. Dari PC Leo lakukan ping ke PC Virgo.



```
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=74ms 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 = 74ms, Average = 18ms

C:\>
```