

**Nama : Khairul Noviyanti**

**NIM : L200170178**

**Kelas : D**

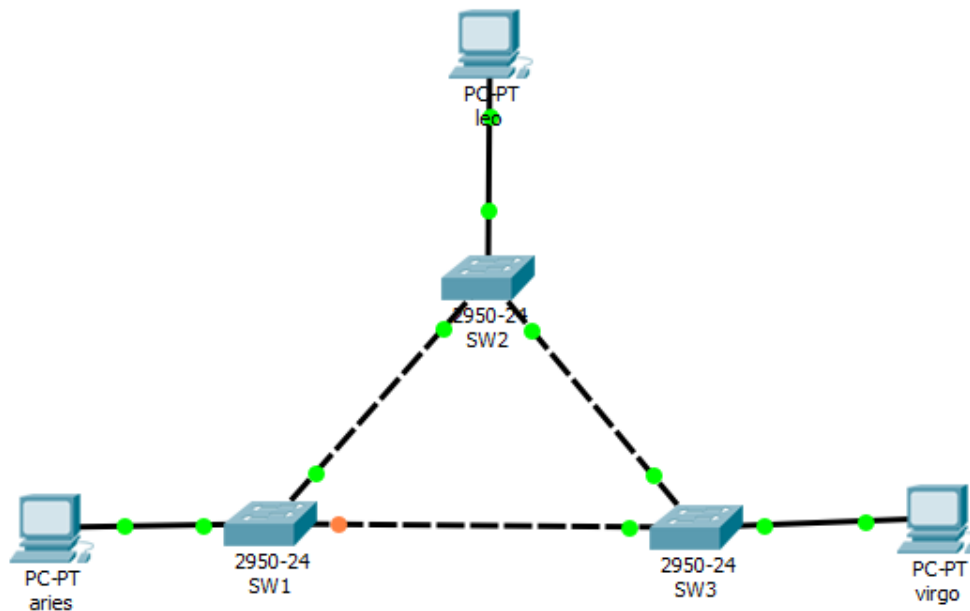
## **PRAKTIKUM JARINGAN KOMPUTER**

### **SPANNING TREE PROTOCOL**

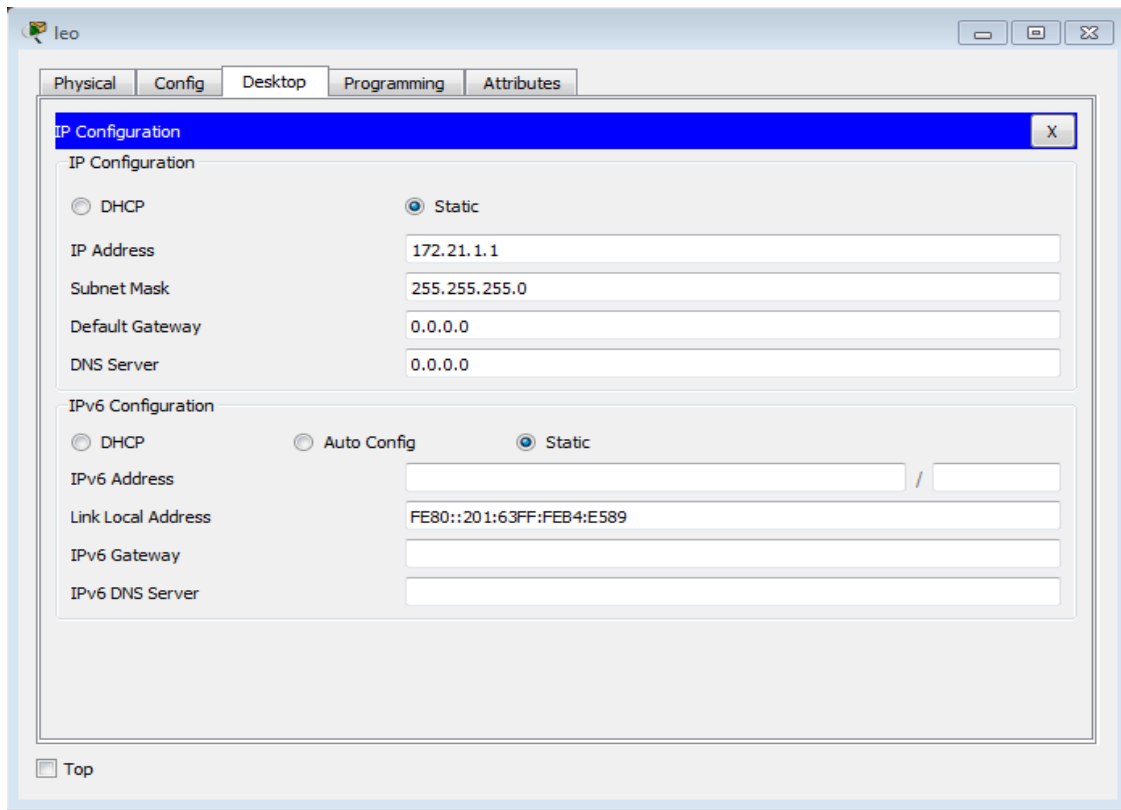
#### **Modul VI**

##### **Kegiatan 1**

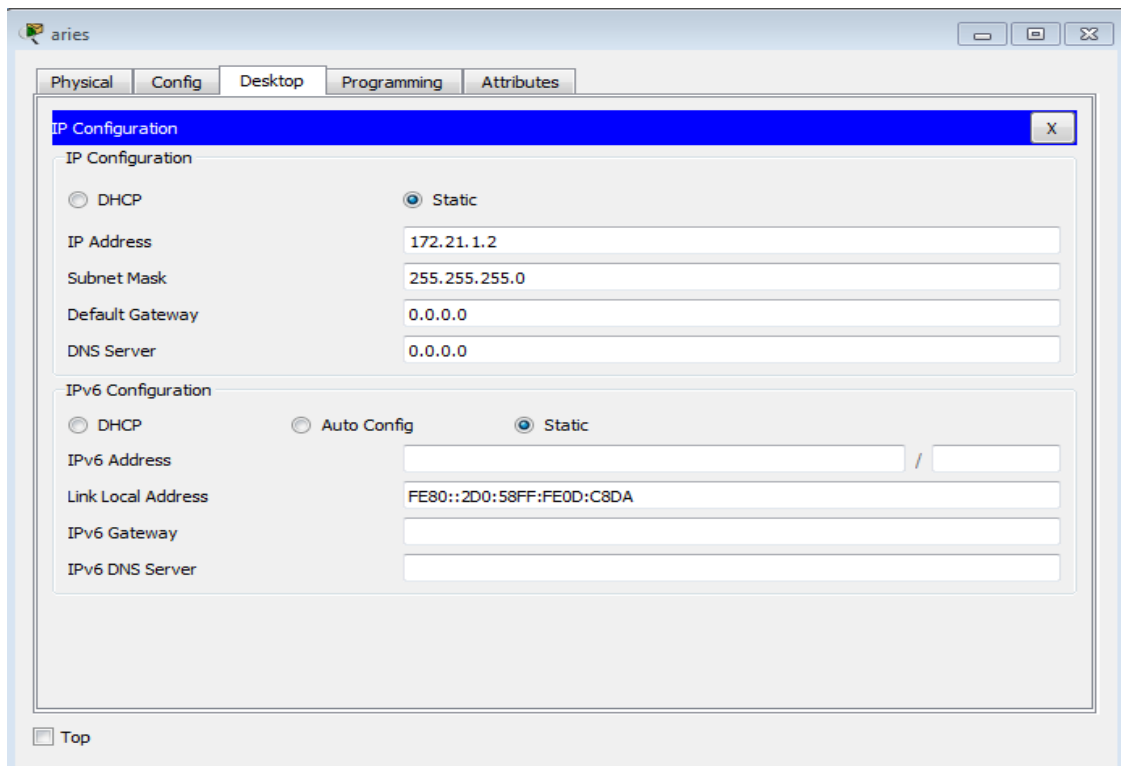
1. Menggunakan PACKET TRACER untuk membuat topologi dengan menggunakan switch dan PC. Seperti gambar di bawah ini :



Konfigurasi alamat IP pada PC leo :



Konfigurasi alamat IP pada PC aries :



Konfigurasi alamat IP pada PC virgo :

The image shows a software window titled "virgo" with a standard Windows-style title bar (minimize, maximize, close buttons). Inside the window, there are five tabs: "Physical", "Config", "Desktop", "Programming", and "Attributes". The "Config" tab is currently selected. Within the "Config" tab, there is a sub-tab titled "IP Configuration" with a close button (X) in its top right corner. This sub-tab contains two main sections: "IP Configuration" and "IPv6 Configuration".

**IP Configuration Section:**

- There are two radio buttons: "DHCP" (unselected) and "Static" (selected).
- Below the radio buttons are four text input fields:
  - "IP Address" with the value "172.21.1.3"
  - "Subnet Mask" with the value "255.255.255.0"
  - "Default Gateway" with the value "0.0.0.0"
  - "DNS Server" with the value "0.0.0.0"

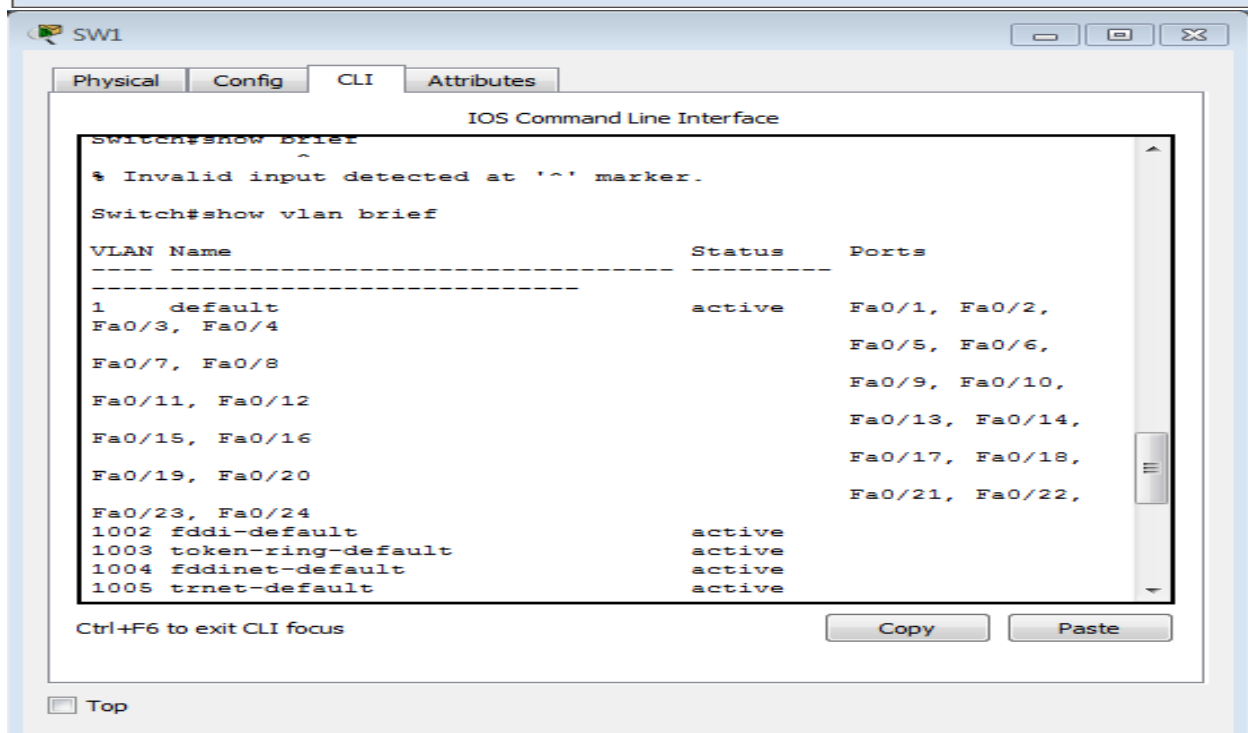
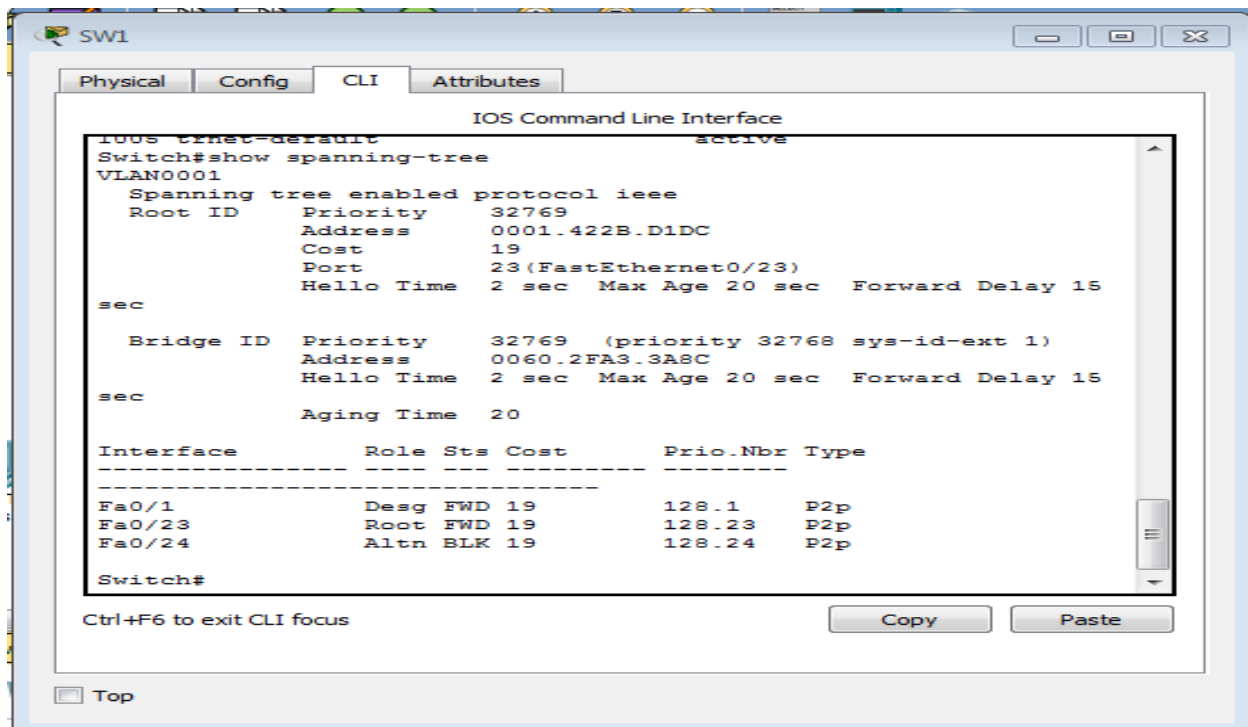
**IPv6 Configuration Section:**

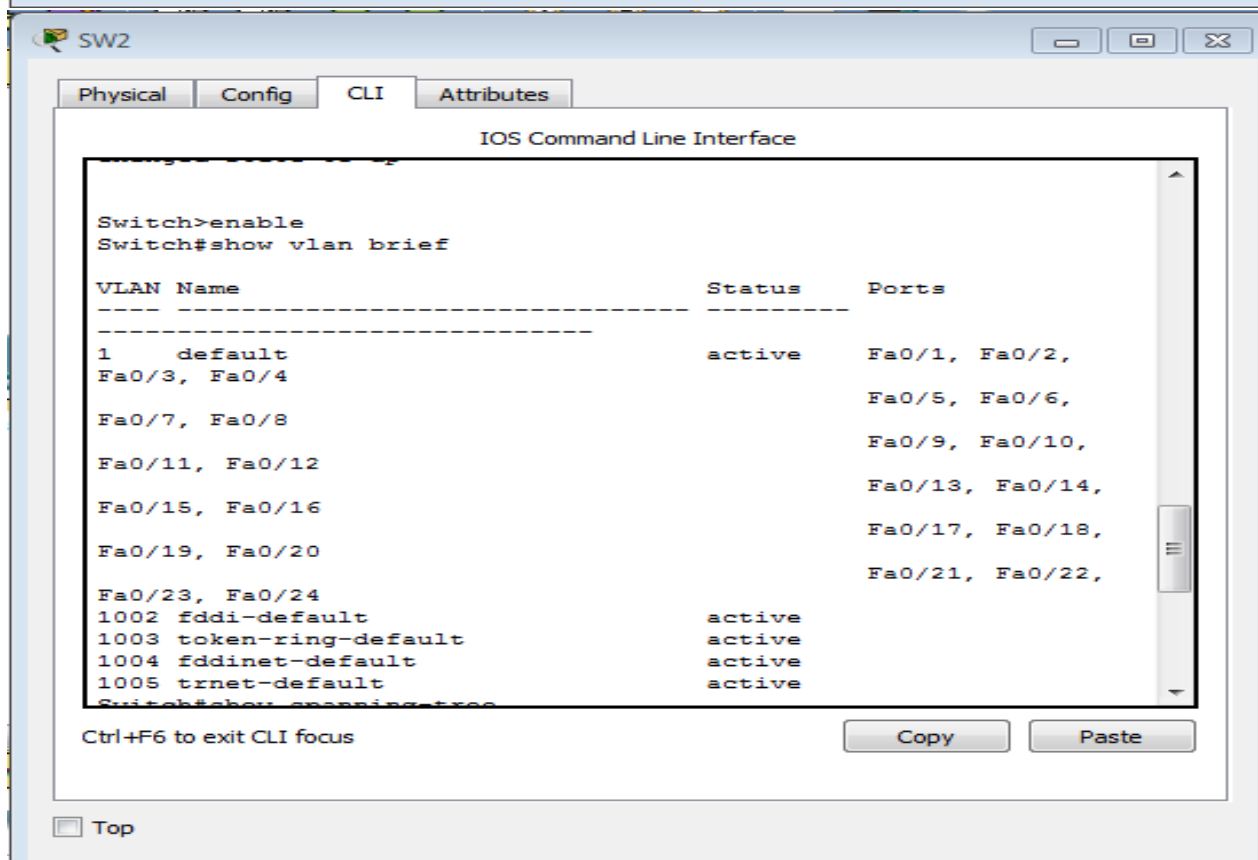
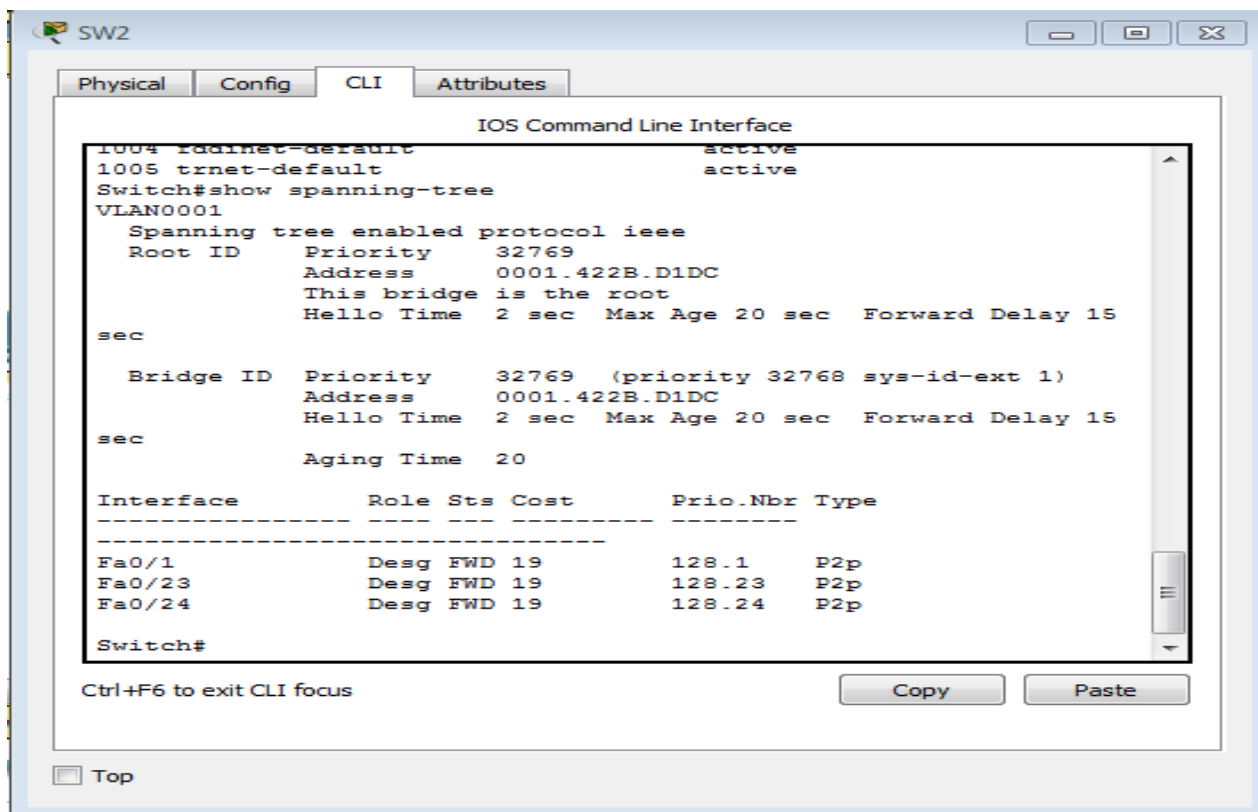
- There are three radio buttons: "DHCP" (unselected), "Auto Config" (unselected), and "Static" (selected).
- Below the radio buttons are four text input fields:
  - "IPv6 Address" is empty, followed by a "/" separator and another empty field.
  - "Link Local Address" with the value "FE80::2E0:A3FF:FEA4:E871"
  - "IPv6 Gateway" is empty.
  - "IPv6 DNS Server" is empty.

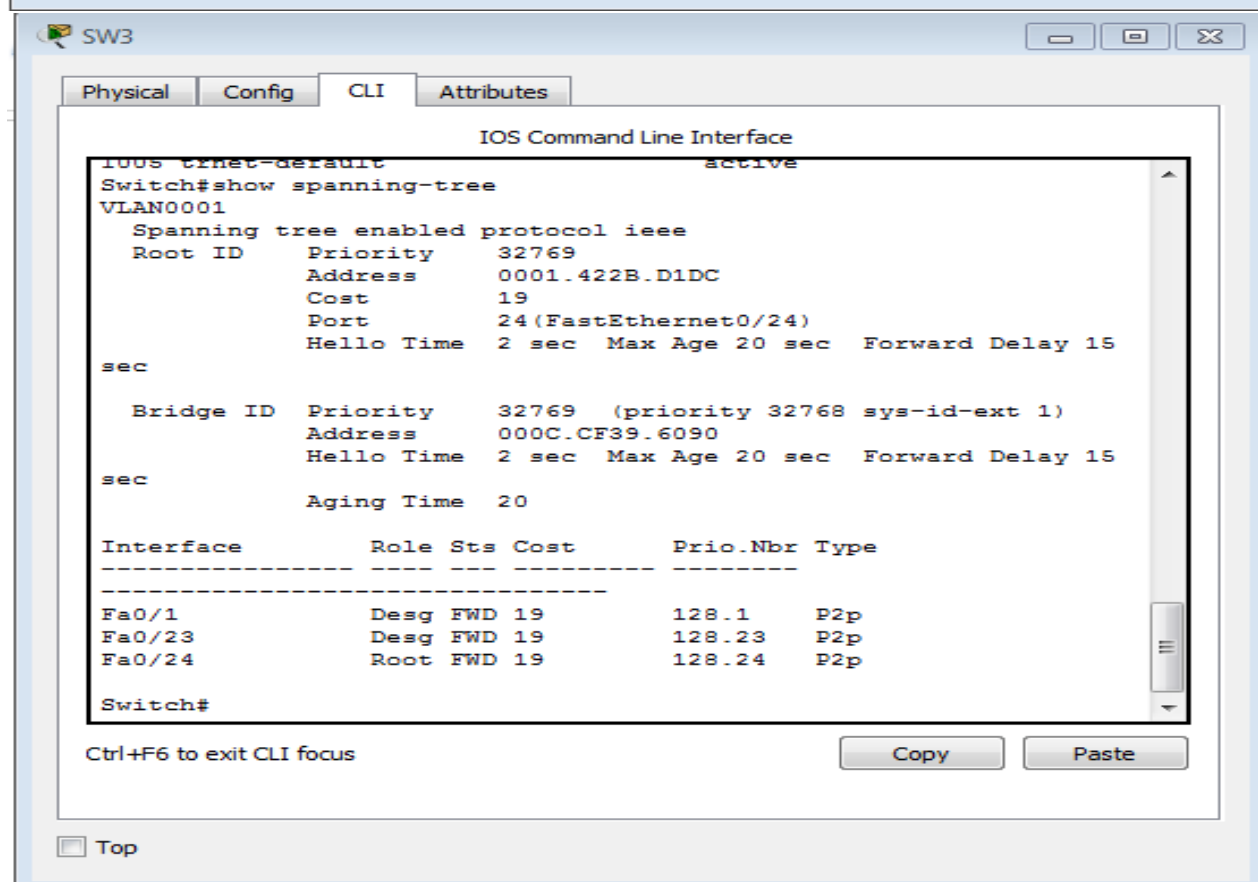
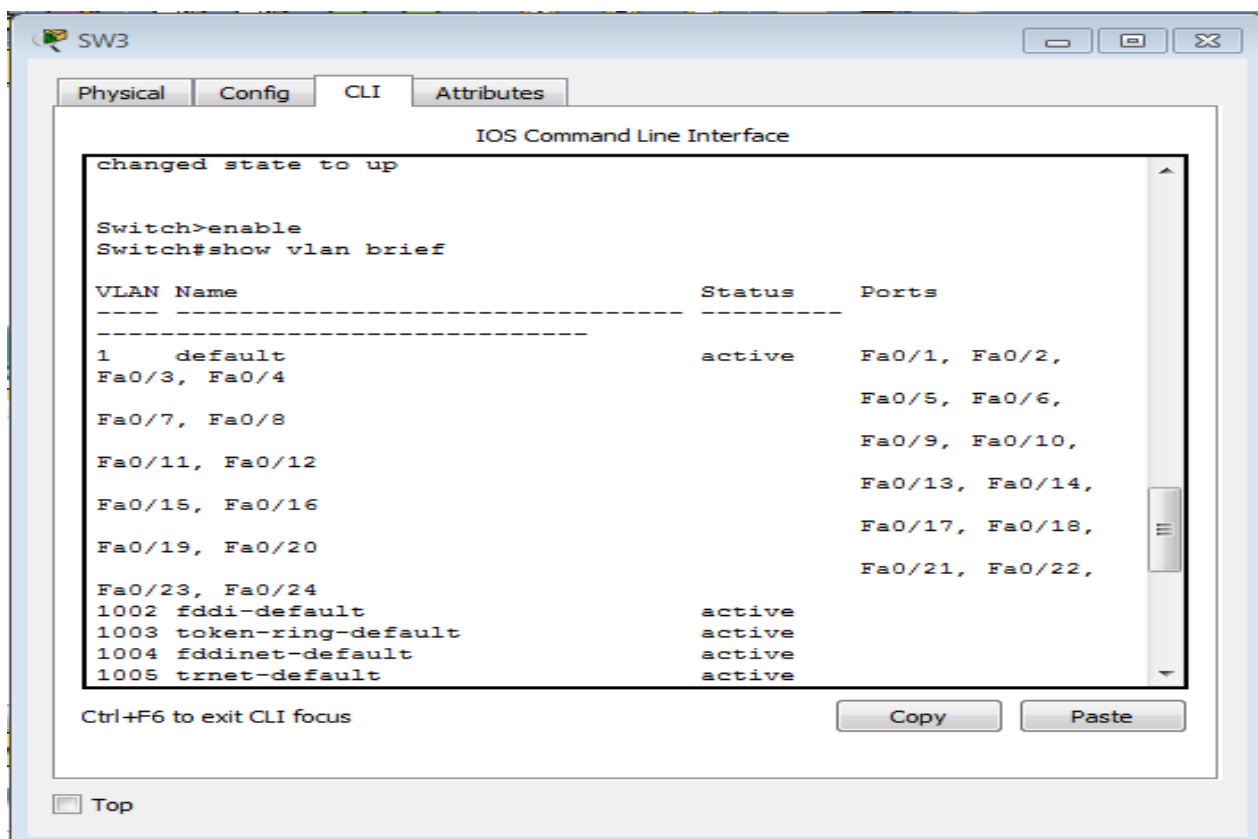
At the bottom left of the "Config" tab, there is a "Top" button with an upward-pointing arrow icon.

Pada mode user / privileged, lihat status STP pada masing – masing switch.

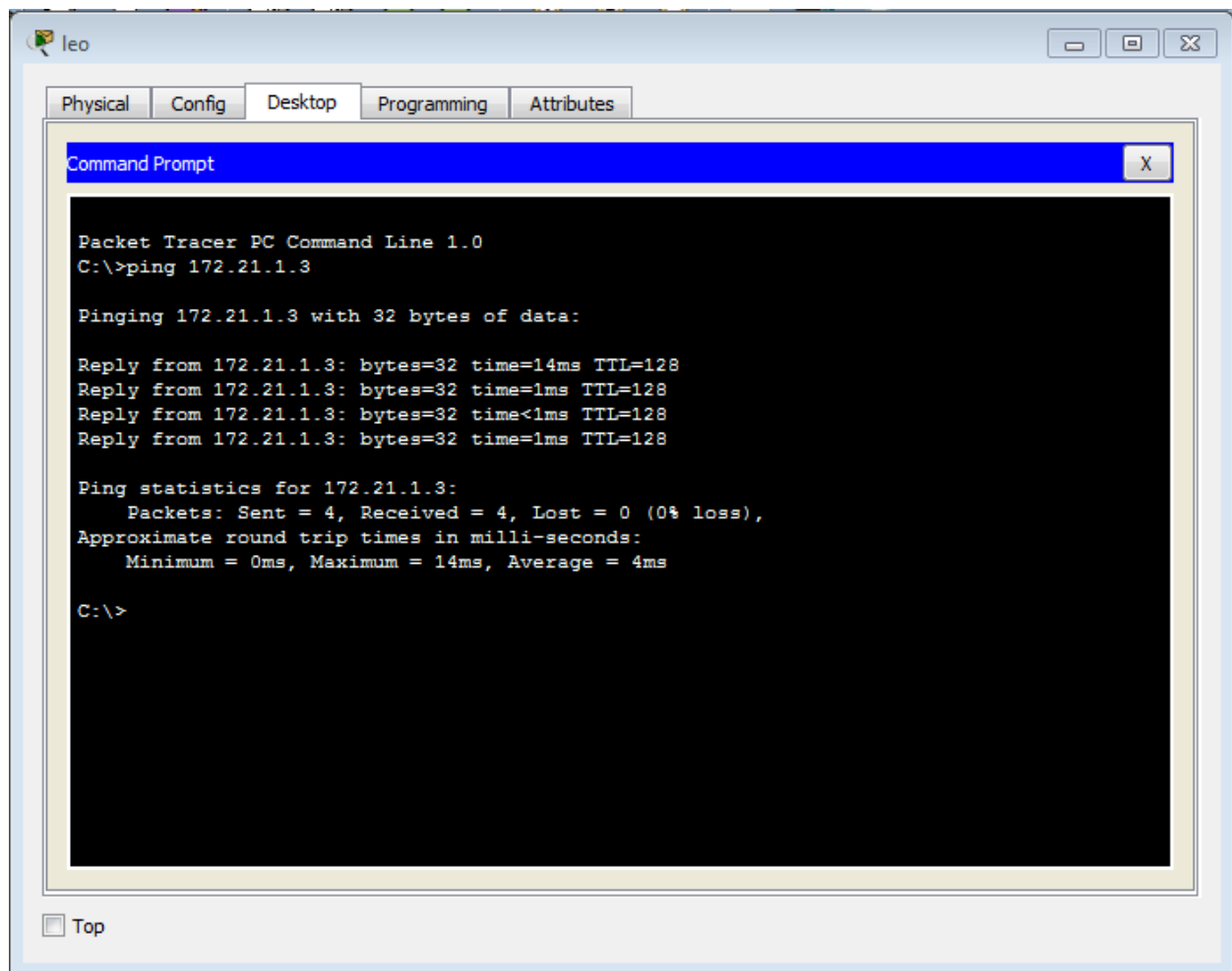
- Masuk mode privileged.
- Ketik *show spanning tree*





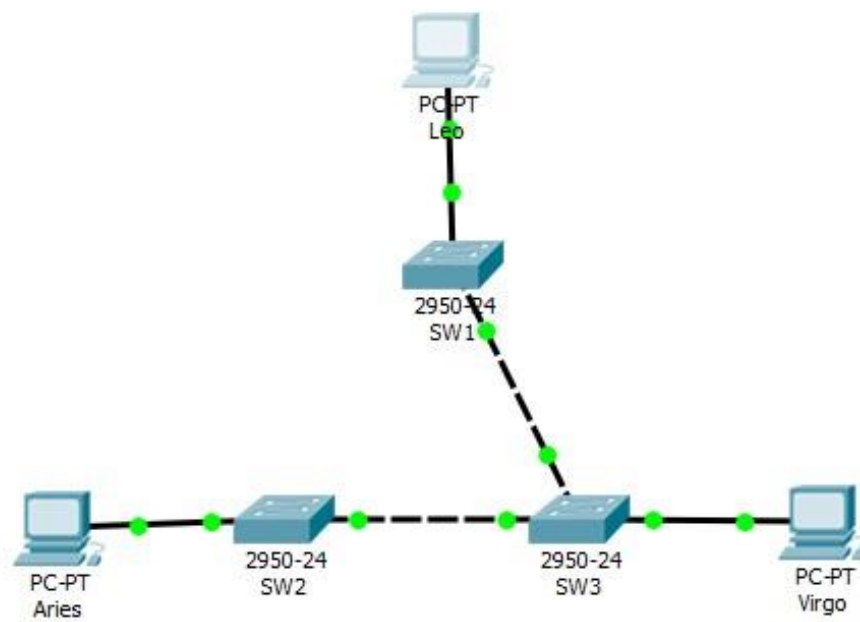


Dari PC leo lakukan ping ke PC virgo.



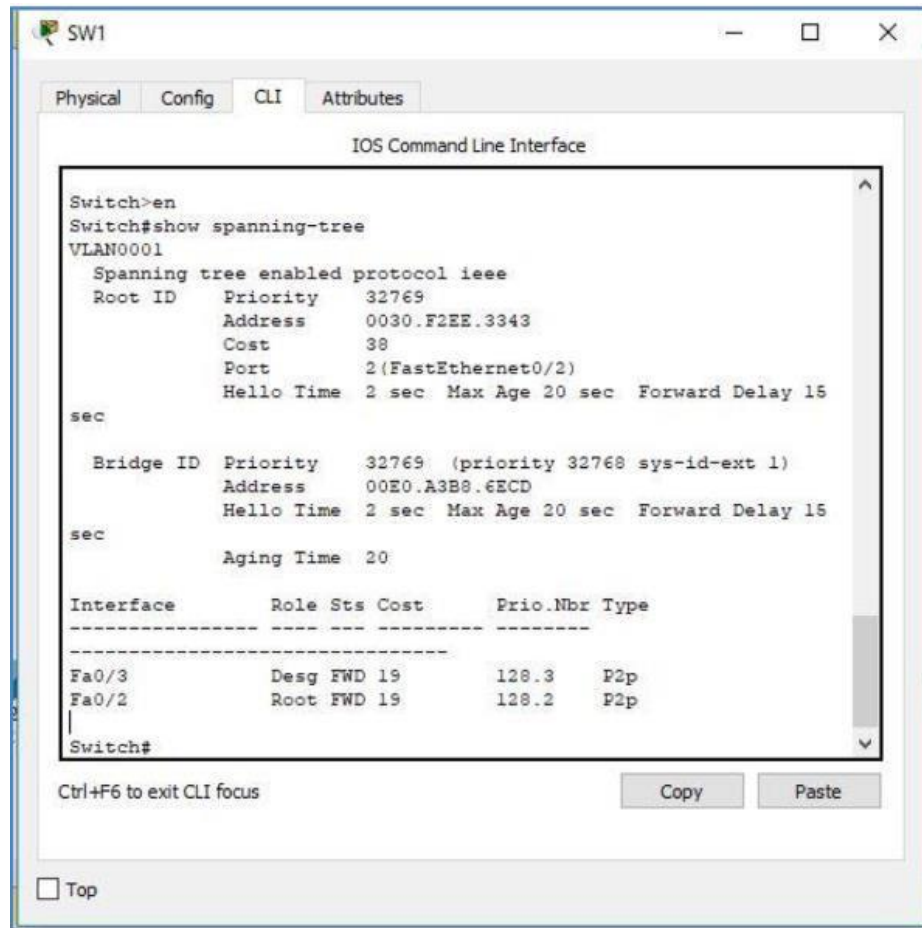
Kegiatan 2 :

1. Mengubah topologi menjadi seperti topologi pada gambar.





## 2. 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 Fa0/3 and Fa0/2.

```
Switch>en
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
    Root ID    Priority    32769
               Address      0030.F2EE.3343
               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      00E0.A3B8.6ECD
               Hello Time   2 sec  Max Age 20 sec  Forward Delay 15
               sec

               Aging Time   20

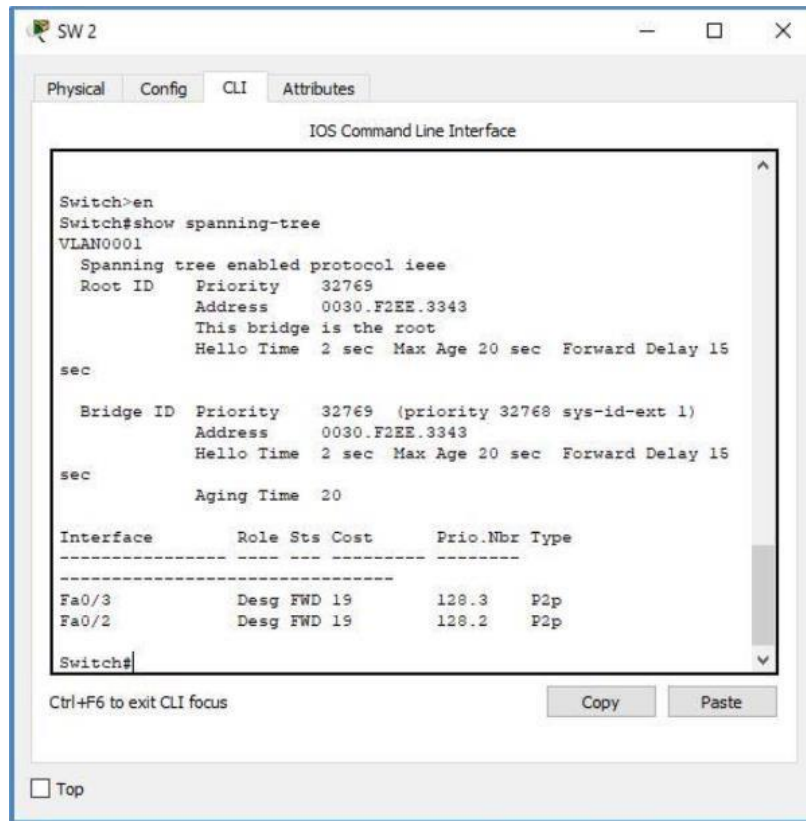
Interface      Role Sts Cost      Prio.Nbr Type
-----
Fa0/3          Desg FWD 19        128.3    P2p
Fa0/2          Root FWD 19        128.2    P2p
Switch#
```

Ctrl+F6 to exit CLI focus

Copy Paste

☐ Top

### 3. SW2



The screenshot shows a network switch configuration window titled "SW 2". The "CLI" tab is selected, displaying the "IOS Command Line Interface". The command "show spanning-tree" has been entered, and the output is displayed in the terminal window.

```
Switch>en
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     0030.F2EE.3343
             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     0030.F2EE.3343
             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	Desg	FWD	19	128.2	P2p

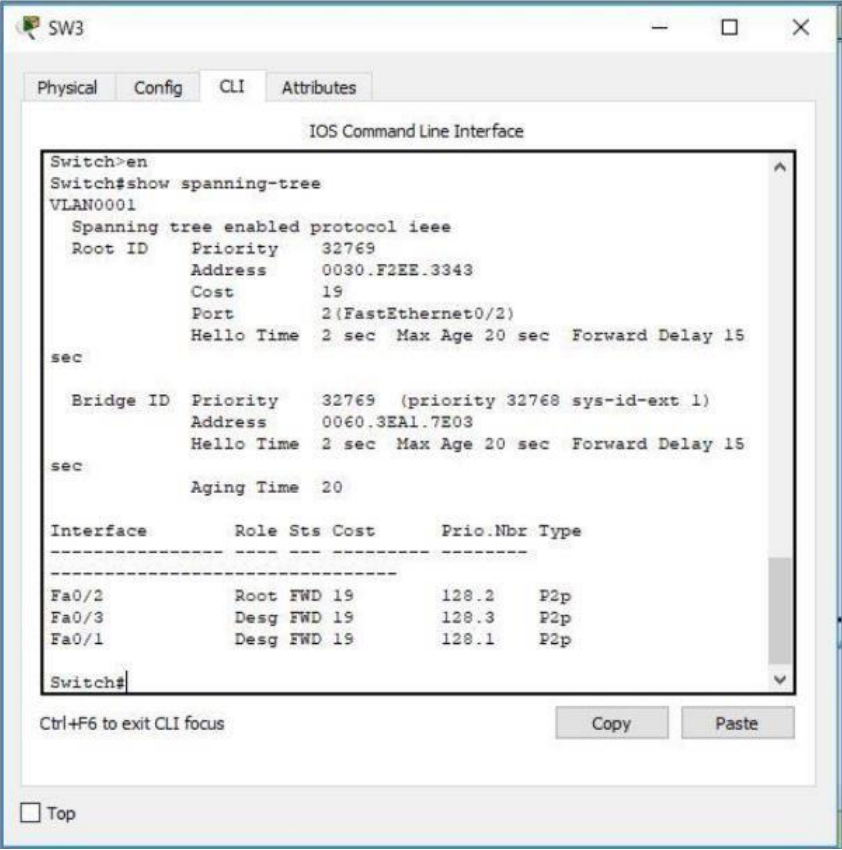
Switch#

Ctrl+F6 to exit CLI focus

Copy Paste

☐ Top

#### 4. SW3



The screenshot shows the CLI interface of a switch named SW3. The 'CLI' tab is selected. The command 'show spanning-tree' has been executed, displaying the following output:

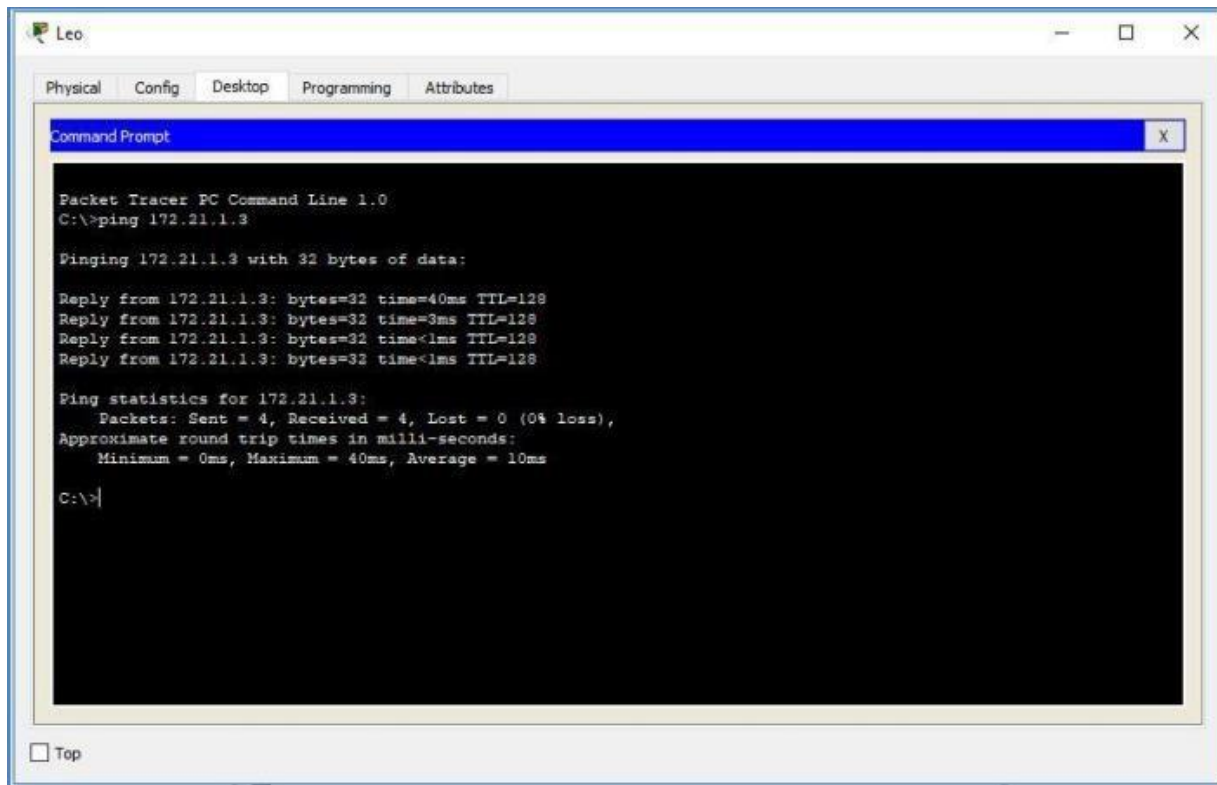
```
Switch>en
Switch#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
            Address    0030.F2EE.3343
            Cost        19
            Port        2(FastEthernet0/2)
            Hello Time  2 sec  Max Age 20 sec  Forward Delay 15
sec
            Bridge ID  Priority    32769  (priority 32768 sys-id-ext 1)
            Address    0060.3EAE.7E03
            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
Fa0/1        Desg FWD 19        128.1    P2p

Switch#
```

Below the CLI window, there is a 'Ctrl+F6 to exit CLI focus' label and 'Copy' and 'Paste' buttons. At the bottom left, there is a 'Top' button.

5. Melakukan ping dari PC leo ke PC virgo



The screenshot shows a Packet Tracer PC window for a device named '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. The output indicates that four packets were successfully received with 0% loss. The round trip times are: 40ms, 3ms, 1ms, and 1ms. The statistics summary shows: Sent = 4, Received = 4, Lost = 0 (0% loss), Minimum = 0ms, Maximum = 40ms, Average = 10ms.

```
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=40ms TTL=128
Reply from 172.21.1.3: bytes=32 time=3ms 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 = 40ms, Average = 10ms

C:\>
```