

**Nama : Prihadina Ayunia Wardhani**

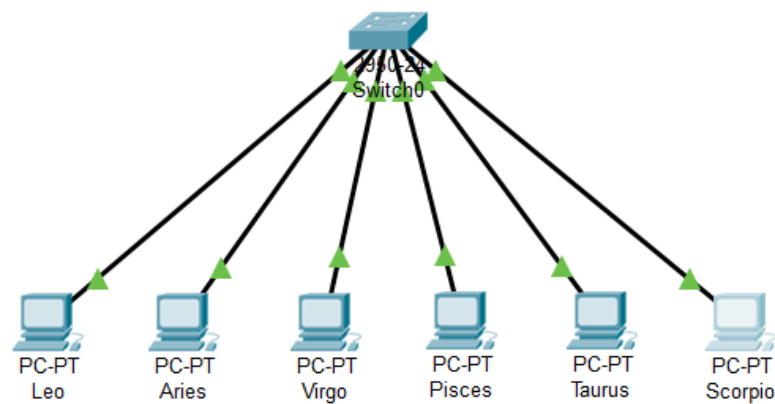
**NIM : L200170007**

**Kelas : A**

**Modul : 4**

### **Kegiatan1. Topologi 1**

1. Menggunakan packet tracer buat topologi seperti pada gambar dengan menggunakan switch



2. Beri nama masing-masing perangkat dengan SW1(switch), Leo(PC0), Aries(PC1), Virgo(PC2), Pisces(PC3), Taurus(PC4), dan Scorpio(PC5)
3. Konfigurasi masing-masing PC dengan nama dan alamat IP berikut ini :
  - ✓ Leo = 172.21.1.1/24
  - ✓ Aries = 172.21.1.2/24
  - ✓ Virgo = 172.21.1.3/24
  - ✓ Pisces = 172.21.1.4/24
  - ✓ Taurus = 172.21.1.5/24
  - ✓ Scorpio = 172.21.1.6/24

4. Konfigurasi pada switch dengan mode user atau mode privileged, buat 3 VLAN dengan nam zodiak1, zodiak2, zodiak3. Dengan cara klik pada switch 2 kali.

Langkah pengoperasian :

```
Switch>enable
Switch#conf term
Switch(config)#vlan 10
Switch(config-vlan)#name zodiak1
Switch(config-vlan)#exit
Switch(config)#vlan 20
Switch(config-vlan)#name zodiak2
Switch(config-vlan)#exit
Switch(config)#vlan 30
Switch(config-vlan)#name zodiak3
Switch(config-vlan)#exit
```

5. Pada mode configuration, konfigurasi port-port switch ke dalam VLAN zodiak1, zodiak2, zodiak3 dengan anggota sebagai berikut :

- ✓ zodiak1 = Leo dan Pisces
- ✓ zodiak2 = Aries dan Taurus
- ✓ zodiak3 = Virgo dan Scorpio

Langkah pengoperasian :

- ✓ Masuk mode configuration
- ✓ Ketik interface Fastethernet 0/1
- ✓ Ketik switchport mode access
- ✓ Ketik switchport access vlan 10
- ✓ Ketik interface Fastethernet 0/4
- ✓ Ketik switchport mode access
- ✓ Ketik switchport access vlan 10
- ✓ Ketik exit

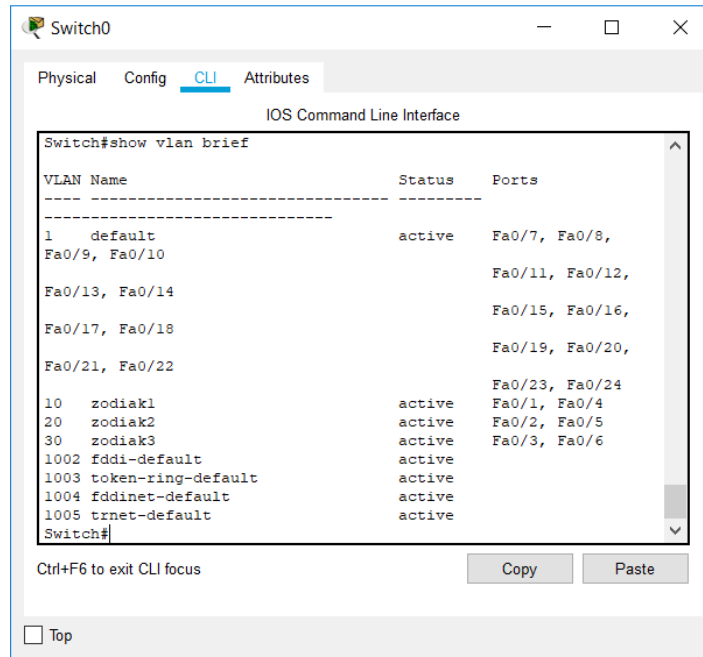
Lakukan langkah-langkah diatas untuk port VLAN zodiak2 (Aries dan Taurus) dan port VLAN zodiak3 (Virgo dan Scorpio)

```

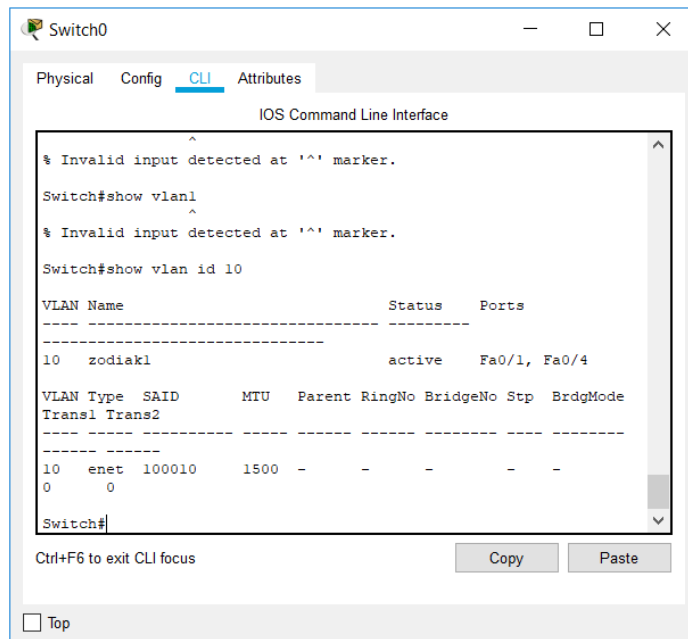
Switch0
Physical Config CLI Attributes
IOS Command Line Interface
Switch(config)#int Fa 0/1
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 10
Switch(config-if)#int Fa 0/4
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 10
Switch(config-if)#exit
Switch(config)#int Fa 0/2
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 20
Switch(config-if)#int Fa 0/5
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 20
Switch(config-if)#exit
Switch(config)#int Fa 0/3
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 30
Switch(config-if)#int Fa 0/6
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 30
Switch(config-if)#exit
Switch(config)#
Ctrl+F6 to exit CLI focus
Copy Paste
Top

```

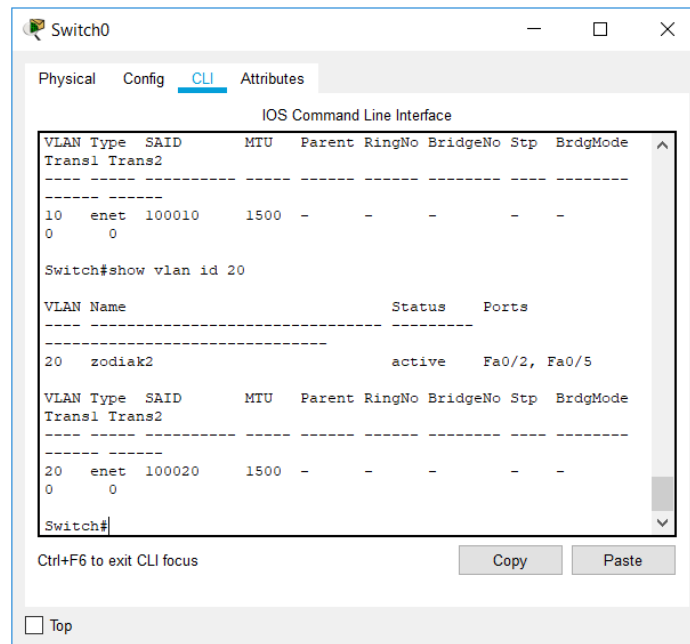
6. Pada mode user atau mode privileged, lihat konfigurasi VLAN yang telah dibuat. Langkah untuk melihat konfigurasi :
  - Tekan enter
  - Masuk mode privileged
  - Ketik show vlan brief (informasi vlan keseluruhan)



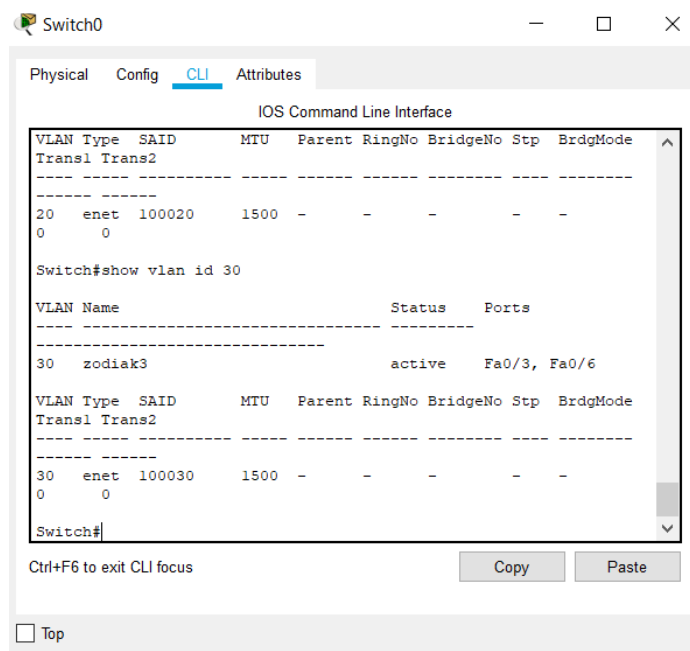
- Ketik show vlan id 10 (informasi vlan 10)



- Ketik show vlan id 20 (informasi vlan 20)



- Ketik show vlan id 30 (informasi vlan 30)

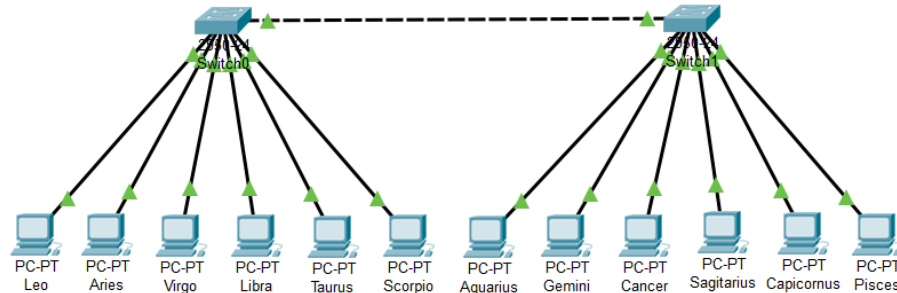


## Tugas 6A :

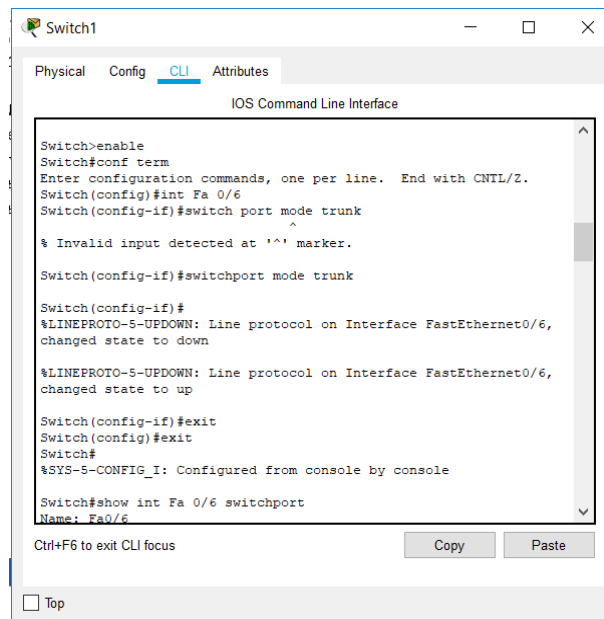
No	Variabel	Nilai		
		vlan id 10	vlan id 20	vlan id 30
1	Nomor VLAN	10	20	30
2	Nama VLAN	zodiak1	zodiak2	zodiak3
3	Port	Fa0/1, Fa0/4	Fa0/2, Fa05	Fa0/3, Fa0/6
4	Status	active	active	active

## Kegiatan 2. Topologi 2

1. Menggunakan cisco packet tracer buat topologi berikut :

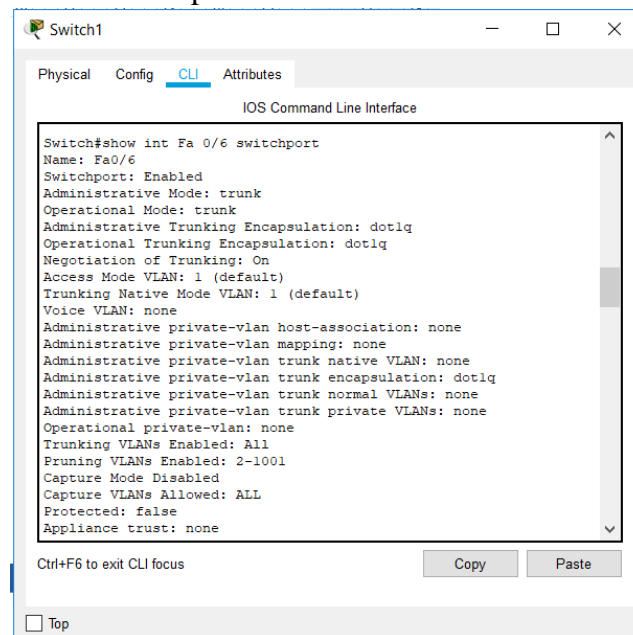


2. Beri nama masing-masing perangkat dengan SW1(switch 1), Leo(PC0), Aries(PC1), Virgo(PC2), Libra(PC3), Taurus(PC4), dan Scorpio(PC5) untuk segmen switch 1.
3. Beri nama masing-masing perangkat dengan SW2(switch 2), Aquarius(PC6), Gemini(PC7), Cancer(PC8), Sagitarius(PC9), Capricornus(PC10), dan Pisces(PC11) untuk segmen switch 2.
4. Konfigurasi masing-masing PC dengan nama dan alamat IP berikut ini :
  - ✓ Leo = 172.21.1.1/24
  - ✓ Aries = 172.21.1.2/24
  - ✓ Virgo = 172.21.2.1/24
  - ✓ Libra = 172.21.2.2/24
  - ✓ Taurus = 172.21.3.1/24
  - ✓ Scorpio = 172.21.3.2/24
  - ✓ Aquarius = 172.21.1.3/24
  - ✓ Gemini = 172.21.1.4/24
  - ✓ Cancer = 172.21.2.3/24
  - ✓ Sagitarius = 172.21.2.4/24
  - ✓ Capriconus = 172.21.3.3/24
  - ✓ Pisces = 172.21.3.4/24
5. Konfigurasi VLAN trunking pada switch 1.  
Langkah pengoperasian :
  - Switch(config)#interface Fa 0/6
  - Switch(config-if)#switchport mode trunk
  - Switch(config-if)#exit

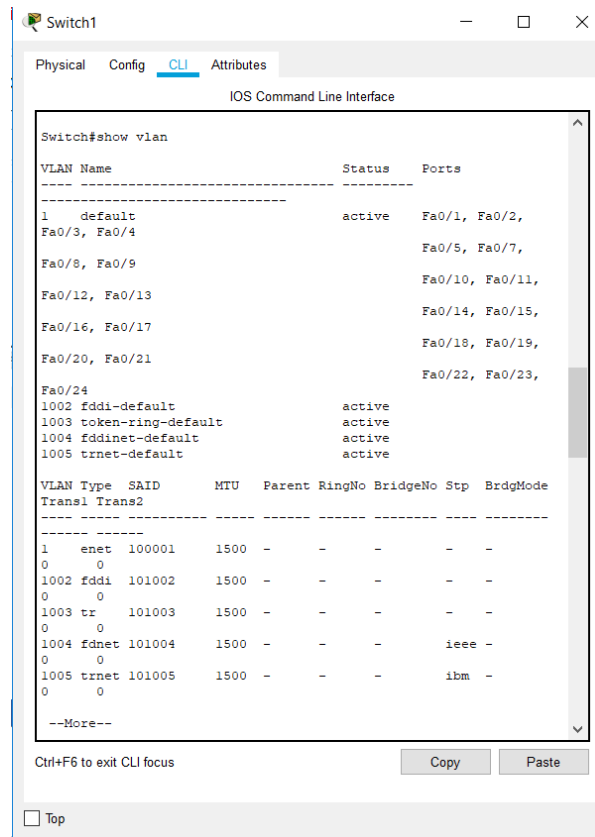


## 6. Melihat konfigurasi :

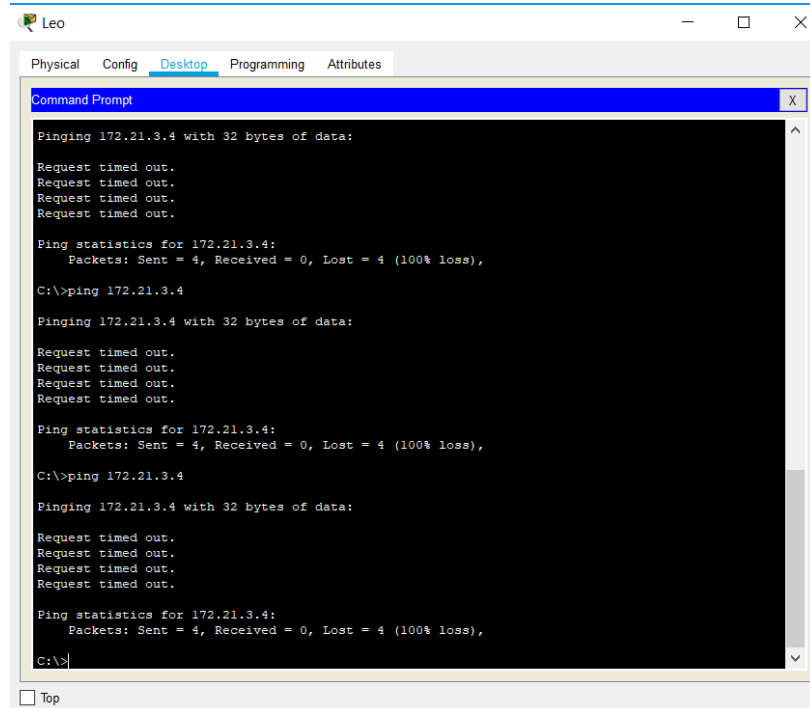
- Ketik show int Fa 0/6 switchport



- Ketik show vlan

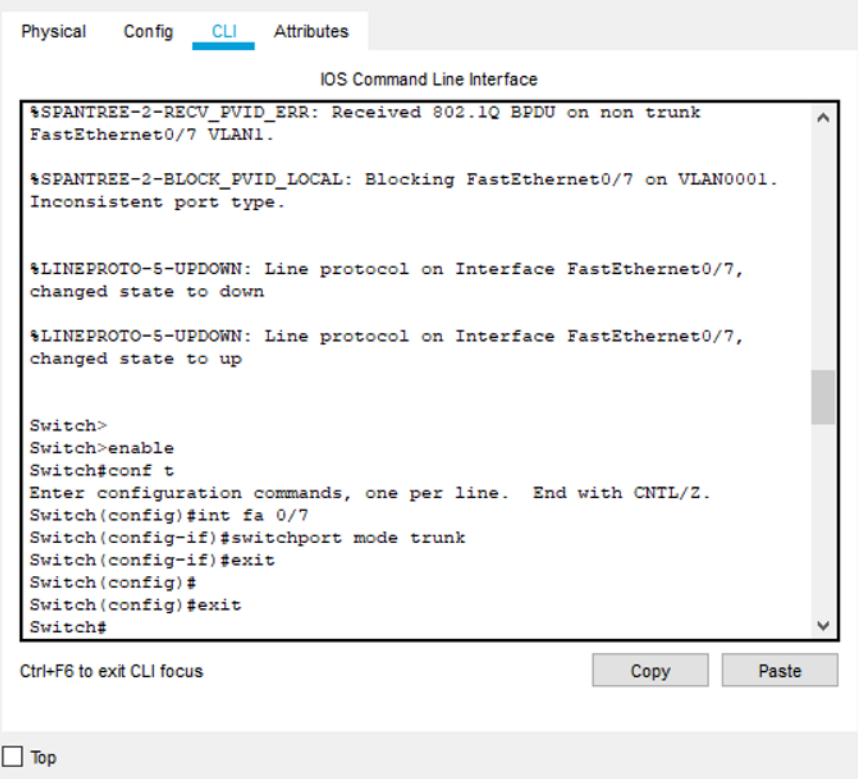


## 7. Lakukan PC Leoke PC Pisces





## 8. Konfigurasi VLAN trunking pada switch 2



The screenshot displays the CLI interface of a network switch. The top navigation bar includes tabs for 'Physical', 'Config', 'CLI' (which is selected), and 'Attributes'. The main window is titled 'IOS Command Line Interface' and contains the following text:

```
%SPANTREE-2-RECV_PVID_ERR: Received 802.1Q BPDU on non trunk
FastEthernet0/7 VLAN1.

%SPANTREE-2-BLOCK_PVID_LOCAL: Blocking FastEthernet0/7 on VLAN0001.
Inconsistent port type.

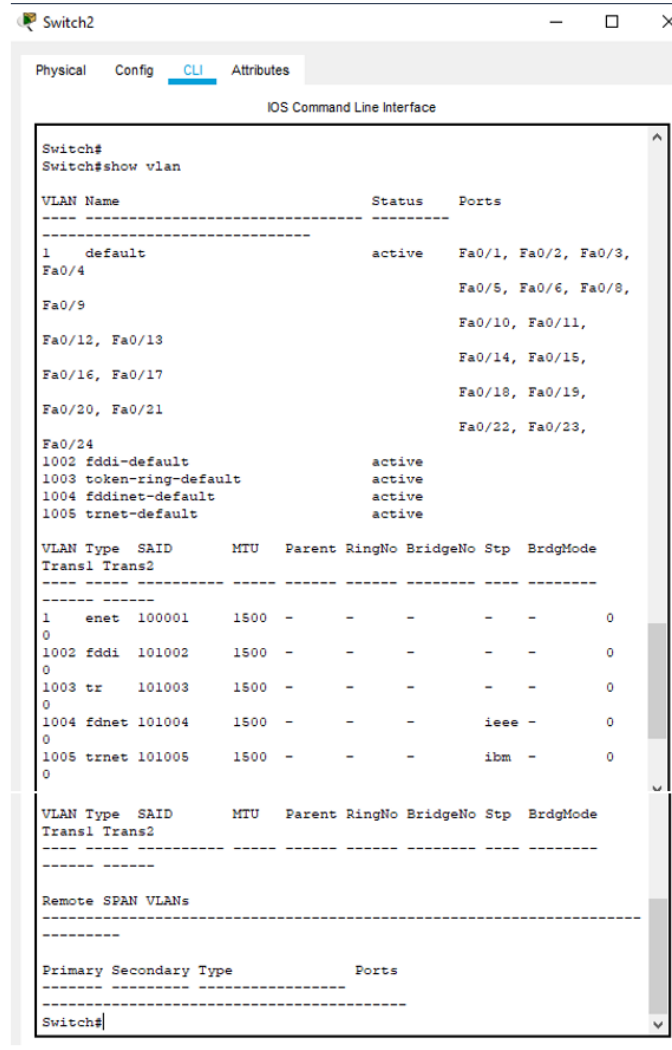
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/7,
changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/7,
changed state to up

Switch>
Switch>enable
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#int fa 0/7
Switch(config-if)#switchport mode trunk
Switch(config-if)#exit
Switch(config)#
Switch(config)#exit
Switch#
```

Below the CLI window, there is a status bar with the text 'Ctrl+F6 to exit CLI focus' and two buttons labeled 'Copy' and 'Paste'. At the bottom left of the interface, there is a checkbox labeled 'Top'.

## 9. Melihat hasil konfigurasi trunking pada switch 2



Switch2

Physical Config CLI Attributes

IOS Command Line Interface

```
Switch#
Switch#show vlan
```

VLAN Name	Status	Ports
1 default	active	Fa0/1, Fa0/2, Fa0/3, Fa0/4, Fa0/5, Fa0/6, Fa0/8, Fa0/9, Fa0/10, Fa0/11, Fa0/12, Fa0/13, Fa0/14, Fa0/15, Fa0/16, Fa0/17, Fa0/18, Fa0/19, Fa0/20, Fa0/21, Fa0/22, Fa0/23, Fa0/24
1002 fddi-default	active	
1003 token-ring-default	active	
1004 fddinet-default	active	
1005 trnet-default	active	

VLAN Type	SAID	MTU	Parent	RingNo	BridgeNo	Stp	BrdgMode
1 enet	100001	1500	-	-	-	-	0
1002 fddi	101002	1500	-	-	-	-	0
1003 tr	101003	1500	-	-	-	-	0
1004 fdnet	101004	1500	-	-	-	ieee	0
1005 trnet	101005	1500	-	-	-	ibm	0

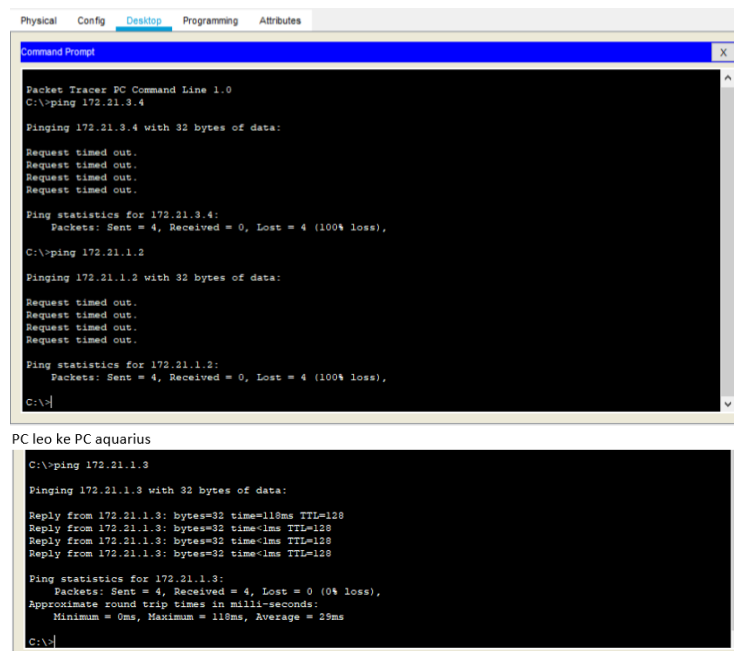
VLAN Type	SAID	MTU	Parent	RingNo	BridgeNo	Stp	BrdgMode
1 enet	100001	1500	-	-	-	-	0
1002 fddi	101002	1500	-	-	-	-	0
1003 tr	101003	1500	-	-	-	-	0
1004 fdnet	101004	1500	-	-	-	ieee	0
1005 trnet	101005	1500	-	-	-	ibm	0

Remote SPAN VLANs

Primary	Secondary	Type	Ports
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Switch#

## 10. Uji coba ping



Physical Config Desktop Programming Attributes

Command Prompt

Packet Tracer PC Command Line 1.0

```
C:\>ping 172.21.3.4
```

Pinging 172.21.3.4 with 32 bytes of data:

Request timed out.  
Request timed out.  
Request timed out.  
Request timed out.

Ping statistics for 172.21.3.4:  
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

```
C:\>ping 172.21.1.2
```

Pinging 172.21.1.2 with 32 bytes of data:

Request timed out.  
Request timed out.  
Request timed out.  
Request timed out.

Ping statistics for 172.21.1.2:  
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

```
C:\>
```

PC leo ke PC.aquarius

```
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=118ms TTL=128  
Reply from 172.21.1.3: bytes=32 time<1ms TTL=130  
Reply from 172.21.1.3: bytes=32 time<1ms TTL=130  
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 = 118ms, Average = 29ms

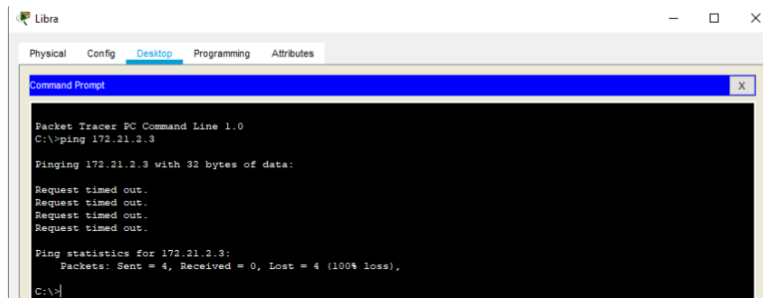
```
C:\>
```

```
C:\>ping 172.21.3.4

Pinging 172.21.3.4 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 172.21.3.4:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\>
```



The screenshot shows a Packet Tracer PC Command Line 1.0 window. The title bar includes tabs for Physical, Config, Desktop, Programming, and Attributes. The Desktop tab is active, displaying a Command Prompt window. The Command Prompt shows the command 'C:\>ping 172.21.2.3' and the resulting output, which indicates a 100% loss of packets due to request timeouts.

```
Packet Tracer PC Command Line 1.0
C:\>ping 172.21.2.3

Pinging 172.21.2.3 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 172.21.2.3:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
C:\>
```

```
C:\>ping 172.21.1.1

Pinging 172.21.1.1 with 32 bytes of data:

Reply from 172.21.1.1: bytes=32 time=1ms TTL=128
Reply from 172.21.1.1: bytes=32 time=1ms TTL=128
Reply from 172.21.1.1: bytes=32 time=1ms TTL=128
Reply from 172.21.1.1: bytes=32 time=1ms TTL=128

Ping statistics for 172.21.1.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms
C:\>
```

**Kesimpulan :** apabila PC berada pada VLAN yang sama, maka akan menghasilkan status Reply. Akan tetapi jika berada pada VLAN yang berbeda akan menghasilkan status Request Time Out.