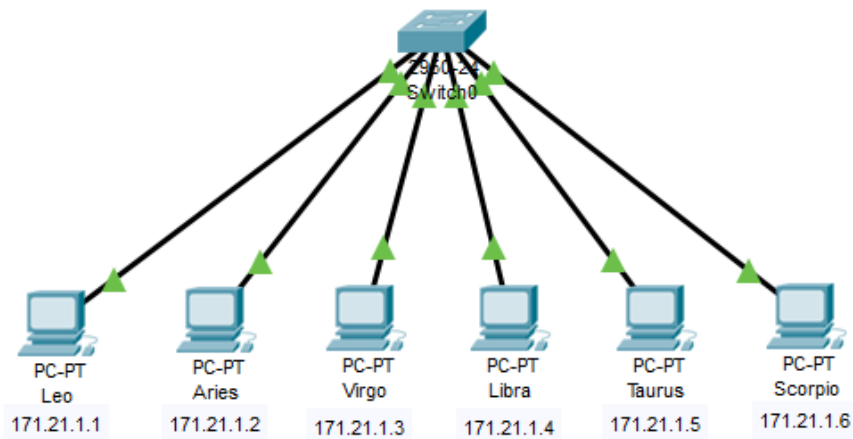


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Kelas : B  
Modul : 4

## MODUL 4

### Kegiatan 1. Topologi 1

1. Desain topologi, penamaan, dan penyetingan IP address



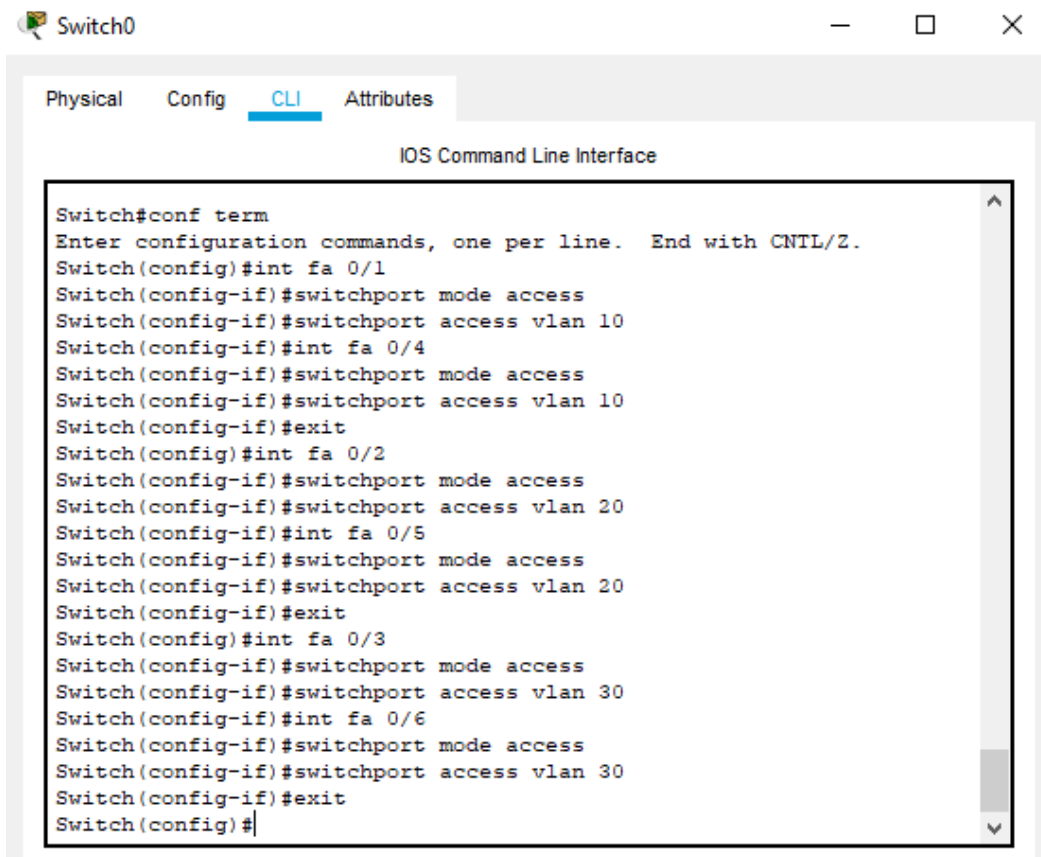
2. Konfigurasi pada switch untuk membuat 3 Vlan dengan nama zodiak1, zodiak2, dan zodiak3

The screenshot shows the CLI interface of a switch named 'Switch0'. The 'CLI' tab is selected. The interface displays the following commands and their outputs:

```
Switch>enable
Switch#conf term
Enter configuration commands, one per line. End with CNTL/Z.
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
Switch(config)#
```

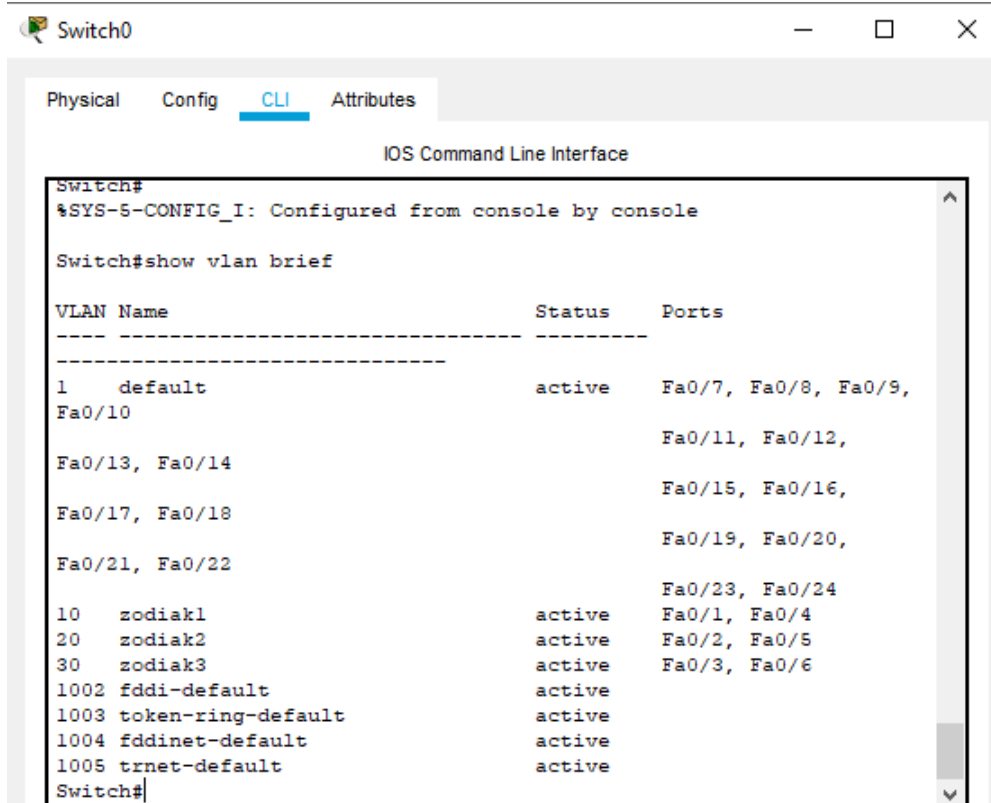
At the top of the CLI window, there are status messages for interfaces FastEthernet0/5 and FastEthernet0/6, indicating that the link is up and the line protocol is up.

3. Konfigurasi port-port switch ke dalam vlan zodiak1, zodiak2, dan zodiak3 dengan anggota sebagai berikut
- Zodiak1 = leo dan libra
  - Zodiak2 = aries dan Taurus
  - Zodiak3 = virgo dan scorpio



```
Switch#conf term
Enter configuration commands, one per line. End with CNTL/Z.
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)#
```

4. Melihan konfigurasi yang telah dibuat



```
Switch#
%SYS-5-CONFIG_I: Configured from console by console

Switch#show vlan brief

VLAN Name                Status    Ports
-----
1    default                active    Fa0/7, 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
10   zodiak1                 active    Fa0/1, Fa0/4
20   zodiak2                 active    Fa0/2, Fa0/5
30   zodiak3                 active    Fa0/3, Fa0/6
1002 fddi-default          active
1003 token-ring-default    active
1004 fddinet-default        active
1005 trnet-default          active
Switch#
```

- Informasi vlan 10

```
Switch#show vlan id 10

VLAN Name                Status    Ports
-----
10   zodiak1                active    Fa0/1, Fa0/4

VLAN Type  SAID      MTU   Parent RingNo BridgeNo Stp  BrdgMode
Trans1 Trans2
-----
10   enet    100010   1500  -     -     -     -     -     0
0
```

- Informasi vlan 20

```
Switch#show vlan id 20

VLAN Name                Status    Ports
-----
20   zodiak2                active    Fa0/2, Fa0/5

VLAN Type  SAID      MTU   Parent RingNo BridgeNo Stp  BrdgMode
Trans1 Trans2
-----
20   enet    100020   1500  -     -     -     -     -     0
0
```

- Informasi vlan 30

```
Switch#show vlan id 30

VLAN Name                Status    Ports
-----
30   zodiak3                active    Fa0/3, Fa0/6

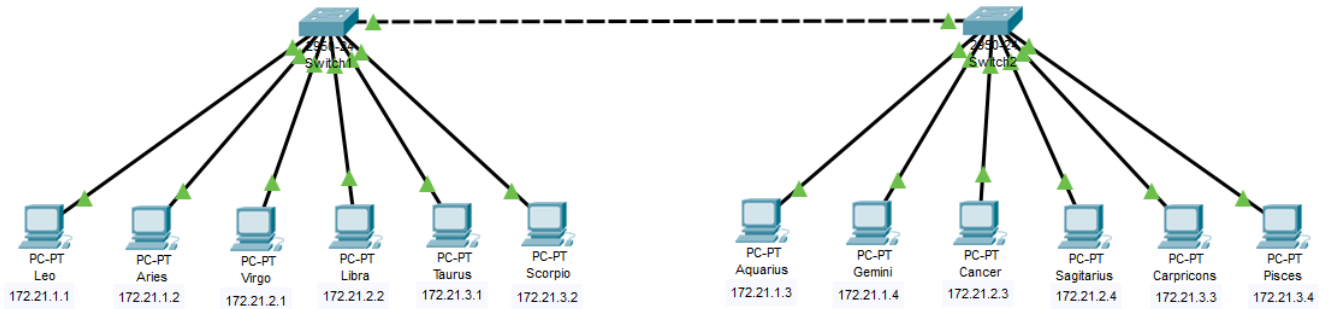
VLAN Type  SAID      MTU   Parent RingNo BridgeNo Stp  BrdgMode
Trans1 Trans2
-----
30   enet    100030   1500  -     -     -     -     -     0
0
```

##### 5. Table informasi tentang vlan

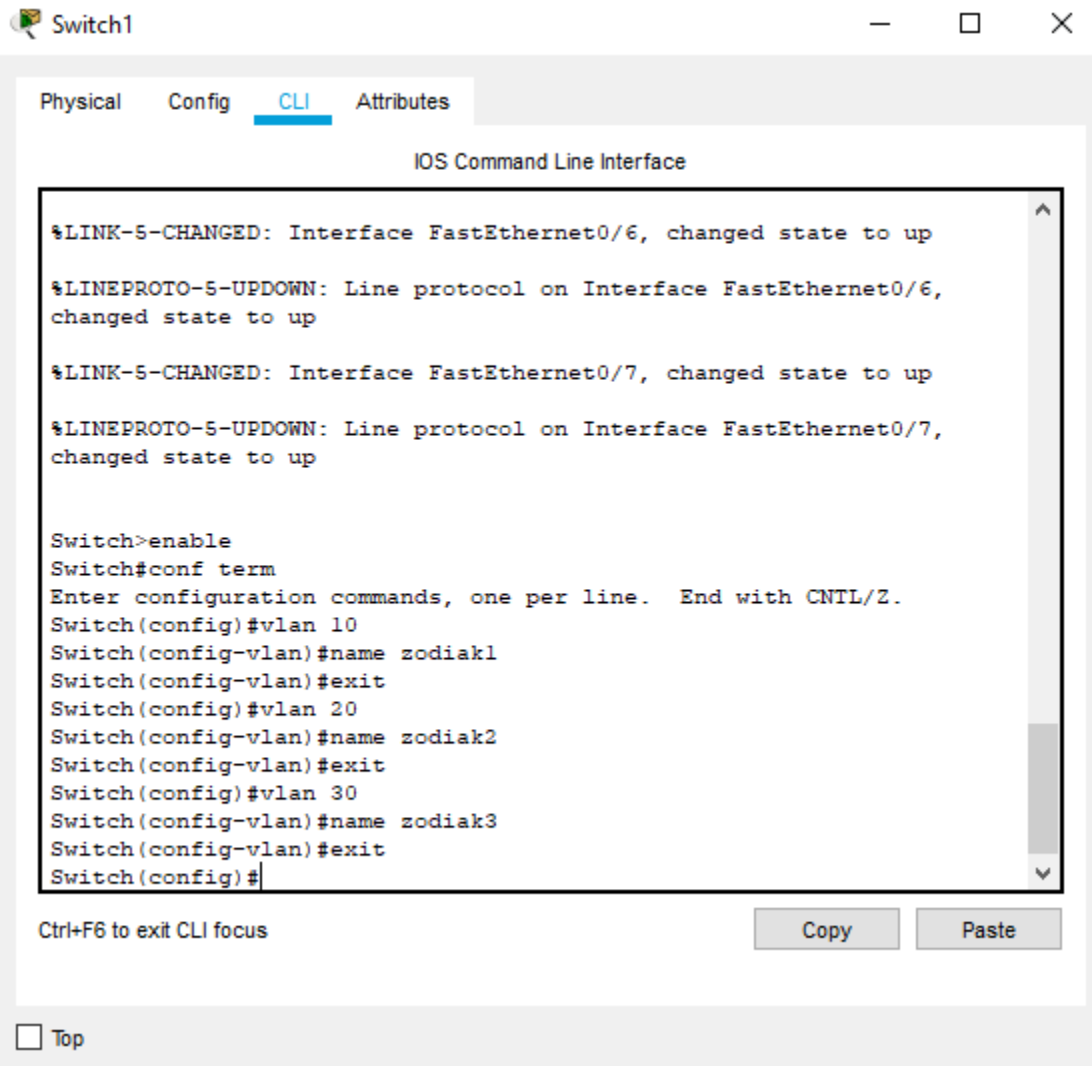
No	Variabel	Nilai		
1.	Nomer VLAN	10	20	30
2.	Nama VLAN	Zodiak1	Zodiak2	Zodiak3
3.	Port	Fa 0/1, Fa 0/4	Fa 0/2, Fa 0/5	Fa 0/3, Fa 0/6
4.	Status	Aktif	Aktif	Aktif

## Kegiatan 2. Topologi 2

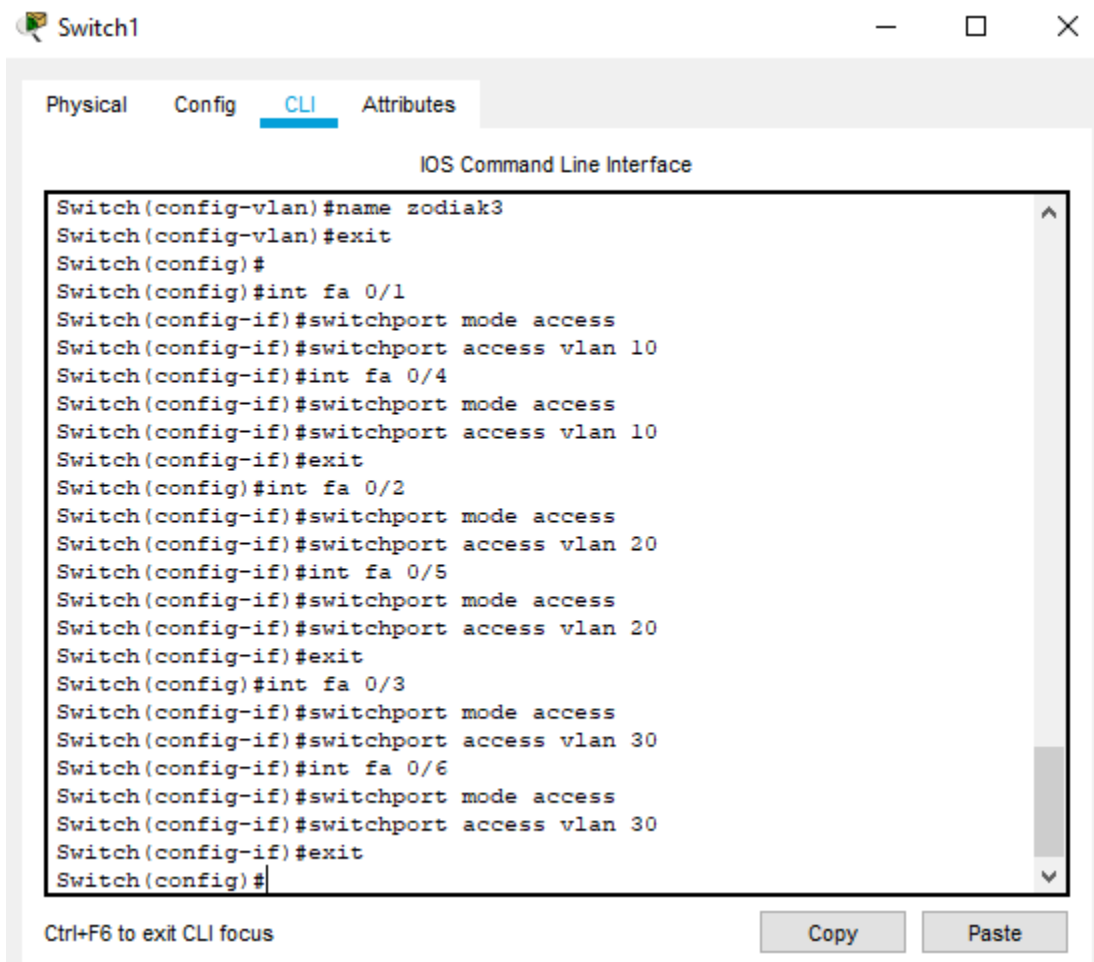
1. Membuat topologi, menamai, dan menyeting IP address



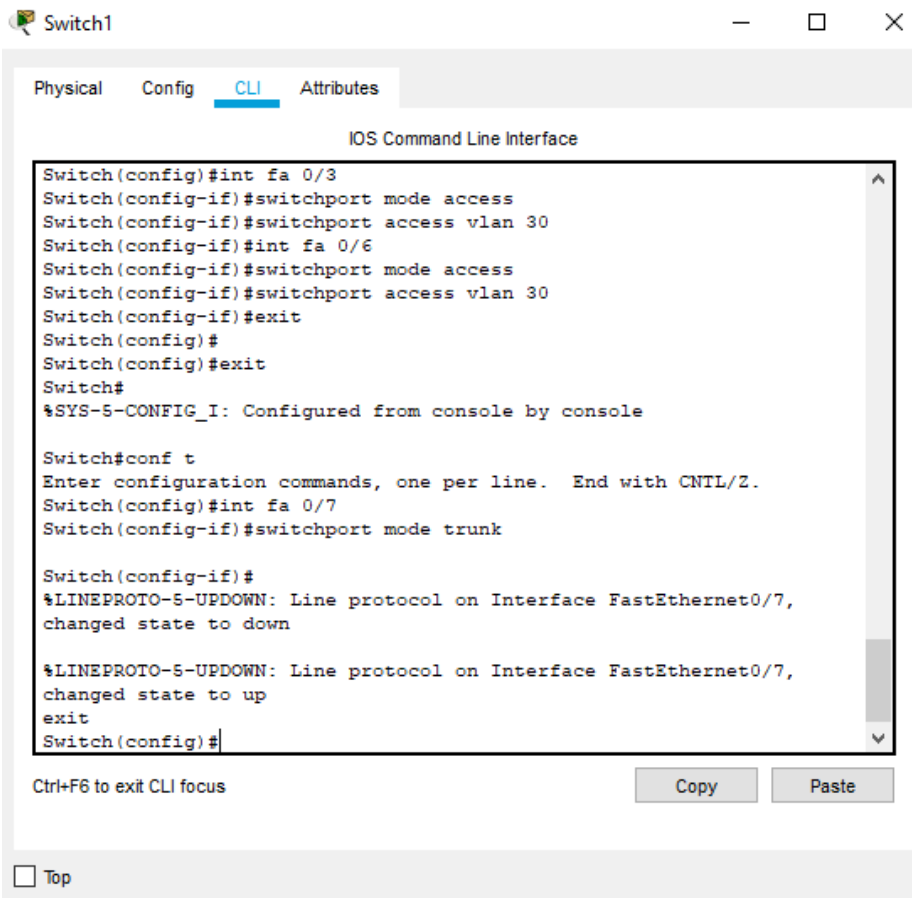
2. Konfigurasi pada switch untuk membuat 3 Vlan dengan nama zodiak1, zodiak2, dan zodiak3



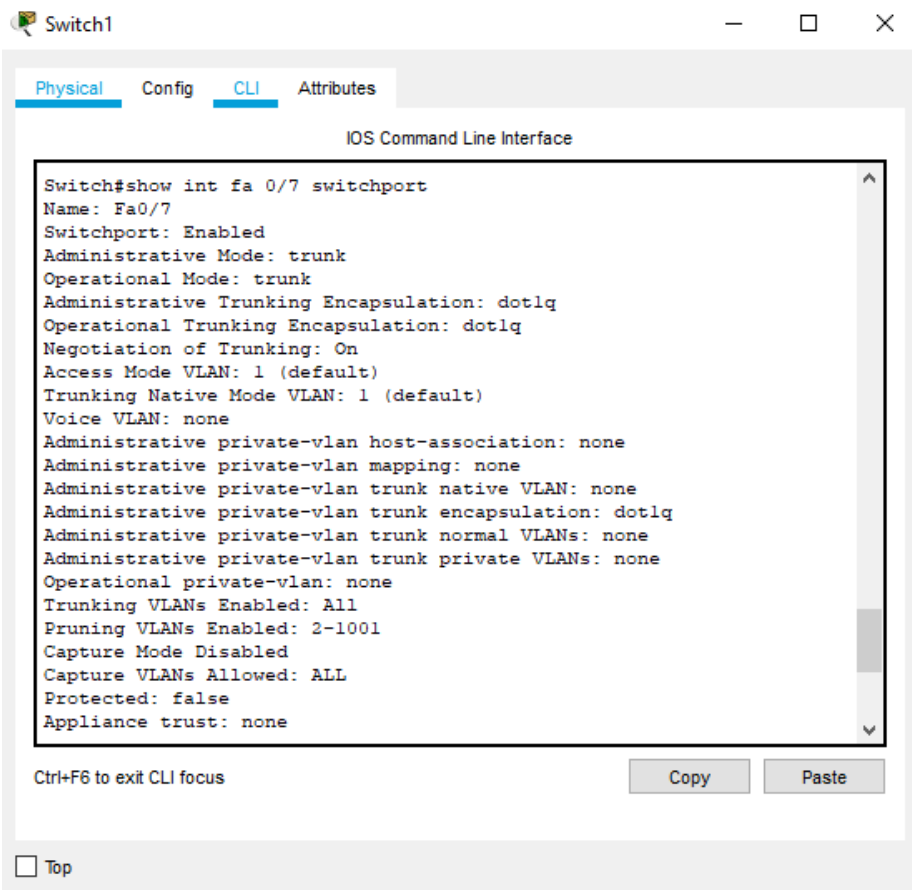
3. Konfigurasi port-port switch ke dalam vlan zodiak1, zodiak2, dan zodiak3 dengan anggota sebagai berikut
- Zodiak1 = leo, libra, aquarius, gemini
  - Zodiak2 = aries, Taurus, cancer, sagitarius
  - Zodiak3 = virgo, scorpio, carpricons, pisces



#### 4. Konfigurasi VLAN trunking pada switch 1



#### 5. Melihat hasil konfigurasi trunking pada switch 1



Physical Config CLI Attributes

## IOS Command Line Interface

```
Switch#show int fa 0/7 trunk
      ^
% Invalid input detected at '^' marker.

Switch#
Switch#
Switch#show int fa 0/7 trunk
      ^
% Invalid input detected at '^' marker.

Switch#show int trunk
Port      Mode           Encapsulation  Status      Native vlan
Fa0/7     on                802.1q         trunking    1

Port      Vlans allowed on trunk
Fa0/7     1-1005

Port      Vlans allowed and active in management domain
Fa0/7     1,10,20,30

Port      Vlans in spanning tree forwarding state and not pruned
Fa0/7     1,10,20,30

Switch#
```

Ctrl+F6 to exit CLI focus

Copy

Paste

☐ Top

Switch1

Physical

Config

CLI

Attributes

IOS Command Line Interface

Switch#show vlan

VLAN Name	Status	Ports
1 default	active	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
10 zodiak1	active	Fa0/1, Fa0/4
20 zodiak2	active	Fa0/2, Fa0/5
30 zodiak3	active	Fa0/3, Fa0/6
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
Trans1	Trans2						
1	enet	100001	1500	-	-	-	0
10	enet	100010	1500	-	-	-	0
20	enet	100020	1500	-	-	-	0
30	enet	100030	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
Trans1	Trans2						

Remote SPAN VLANs

Primary	Secondary	Type	Ports
---------	-----------	------	-------

Switch#

Ctrl+F6 to exit CLI focus

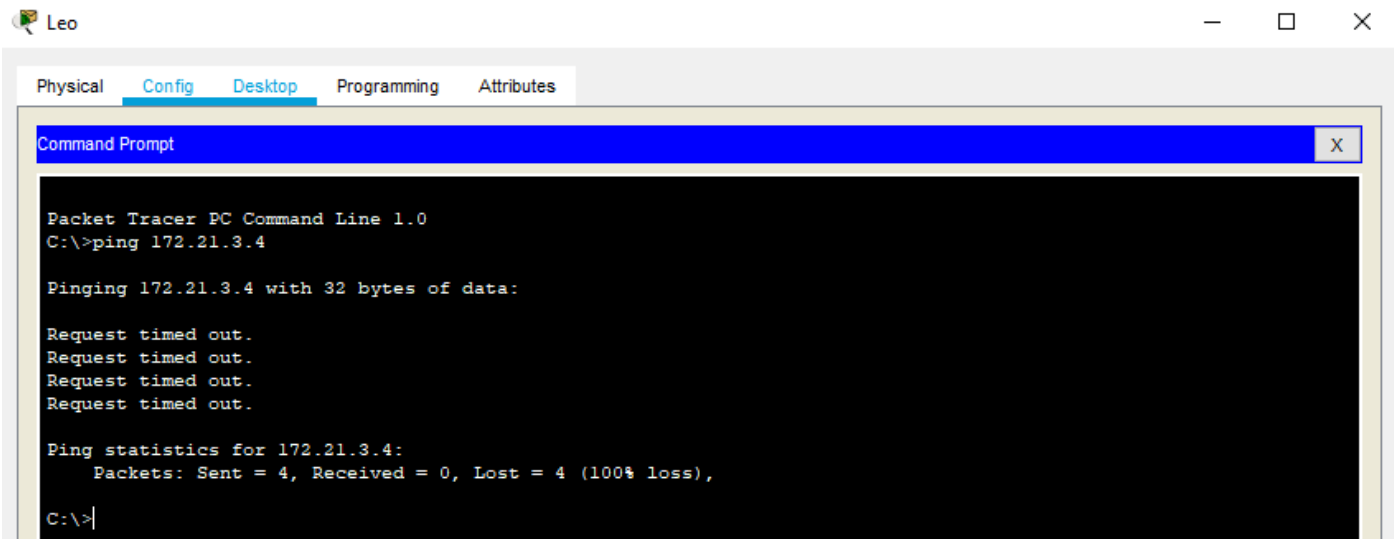
Copy

Paste

Pada langkah ini port yang sudah terkonfigurasi ke dalam vlan yaitu port 0/1 sampai port 0/6, sedangkan port 0/7 untuk trunking antar switch.

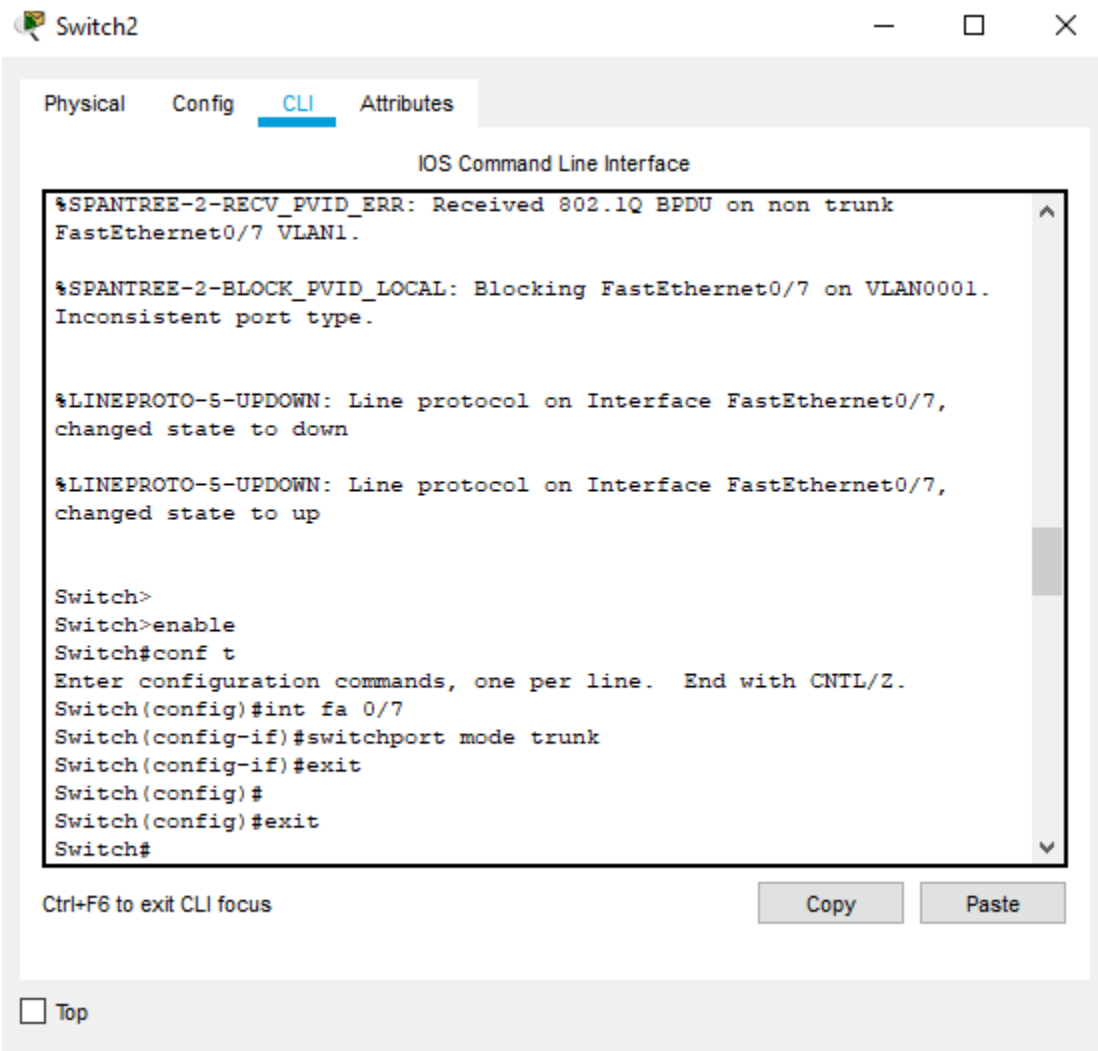


6. Uji coba ping antara PC leo dengan PC pisces

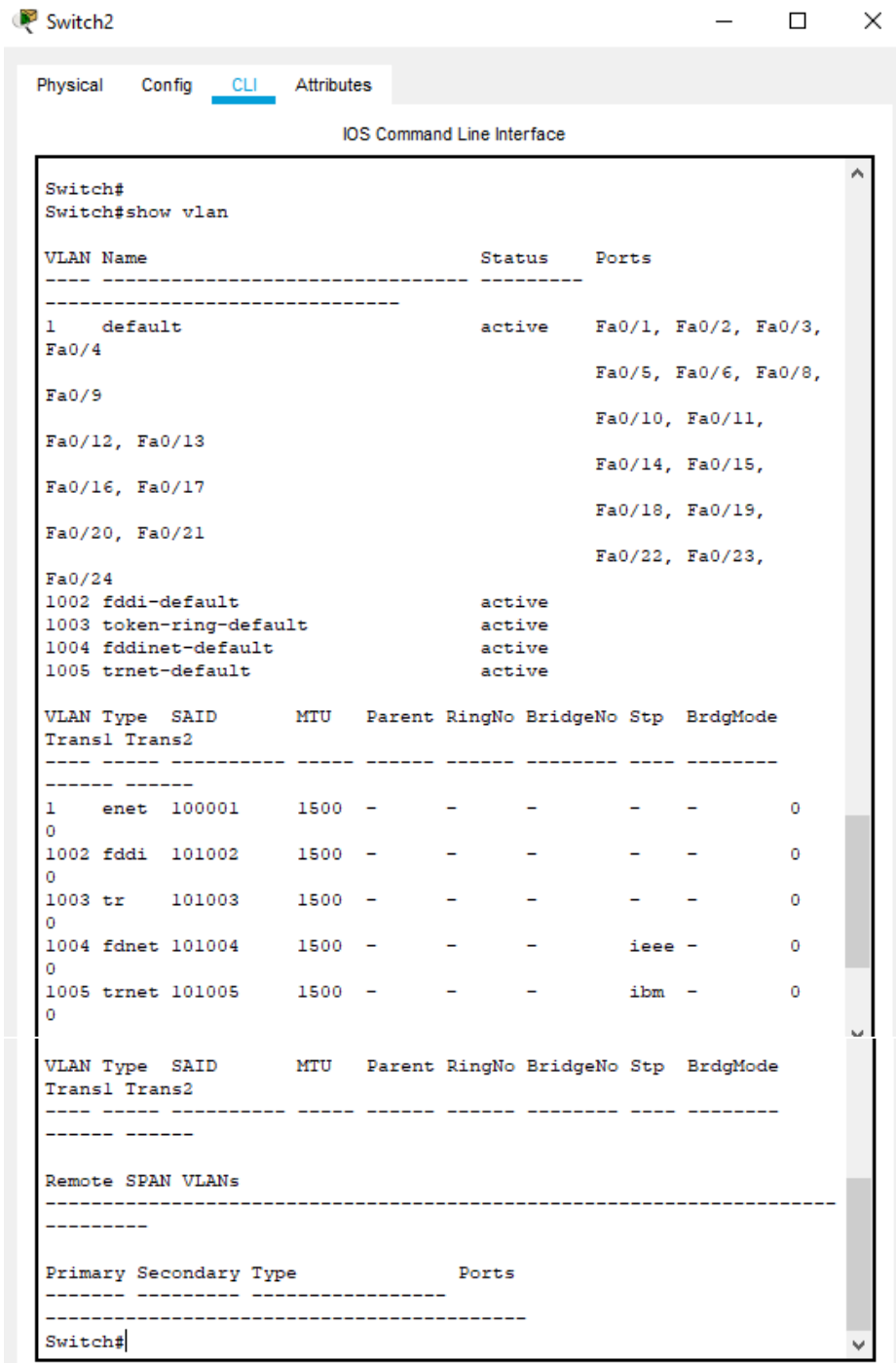


Hasil yang didapat masih RTO, karena PC pisces tidak berada pada VLAN yang sama dengan PC Leo

7. Konfigurasi VLAN trunking pada switch 2



8. Melihat hasil konfigurasi trunking pada switch 2



The screenshot shows a network switch interface with tabs for Physical, Config, CLI, and Attributes. The CLI tab is active, displaying the 'IOS Command Line Interface'. The user has entered the command 'Switch#show vlan'. The output shows a table of VLANs and their associated ports. VLAN 1 is the default VLAN and is active, with ports Fa0/1 through Fa0/24. VLANs 1002 through 1005 are also active and have default names: fddi-default, token-ring-default, fddinet-default, and trnet-default respectively. Below this, another table shows VLAN details including Type, SAID, MTU, Parent, RingNo, BridgeNo, Stp, and BrdgMode. The output also includes sections for Remote SPAN VLANs and a table for Primary and Secondary VLAN types.

```
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
Trans1 Trans2
-----
1    enet    100001    1500   -      -      -      -      -      0
0
1002 fddi    101002    1500   -      -      -      -      -      0
0
1003 tr     101003    1500   -      -      -      -      -      0
0
1004 fdnet  101004    1500   -      -      -      ieee  -      0
0
1005 trnet  101005    1500   -      -      -      ibm   -      0
0

VLAN Type  SAID      MTU    Parent RingNo BridgeNo Stp  BrdgMode
Trans1 Trans2
-----

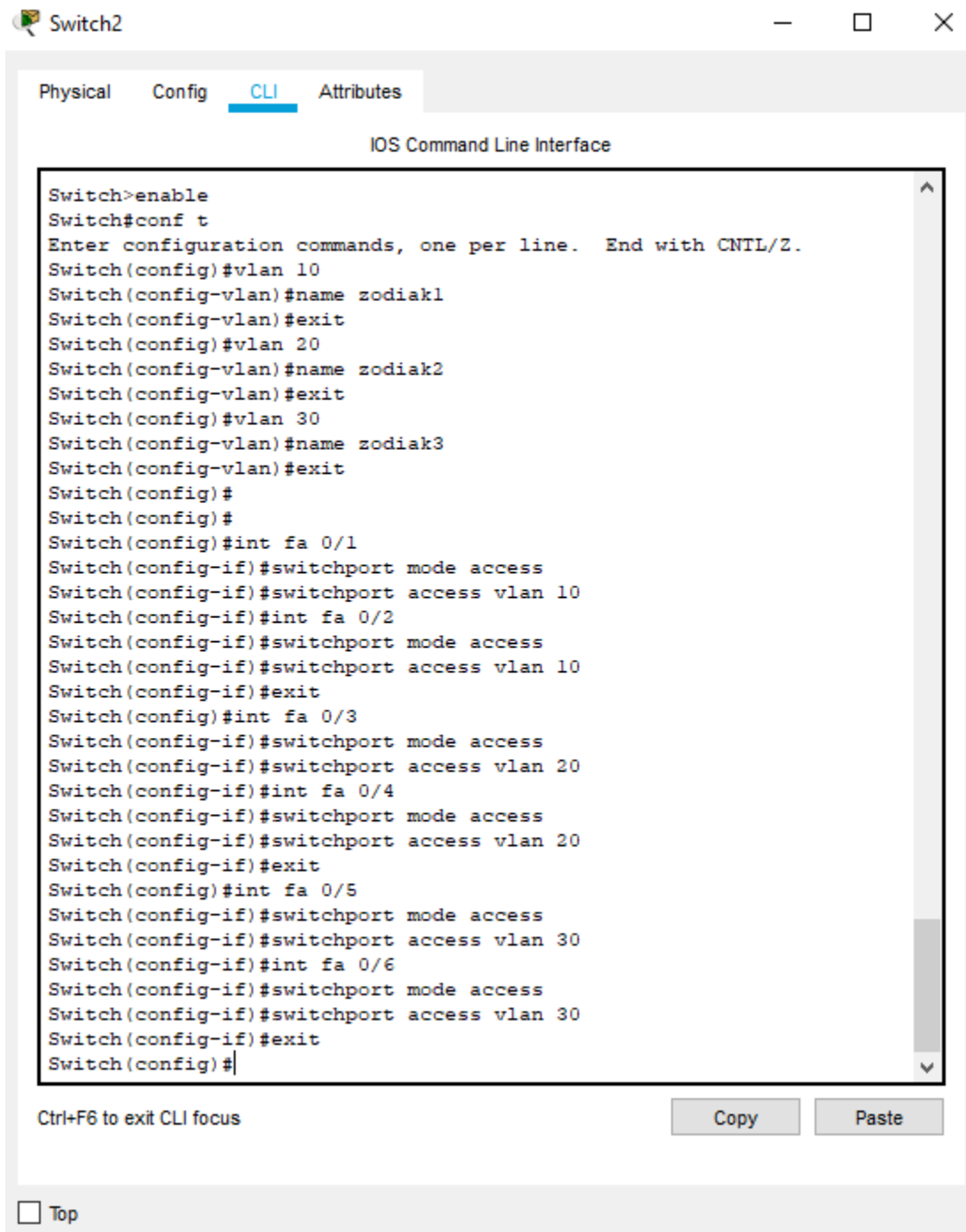
Remote SPAN VLANs
-----

Primary Secondary Type          Ports
-----
Switch#
```

Pada langkah ini port port fastethernet belum terkonfigurasi ke dalam VLAN, bahkan VLAN nya belum dibuat

9. Konfigurasi port port kedalam VLAN zodiak1, zodiak2, dan zodiak3 dengan anggota sebagai berikut

- Zodiak1 = leo, libra, aquarius, gemini
- Zodiak2 = aries, Taurus, cancer, sagitarius
- Zodiak3 = virgo, scorpio, carpricons, pisces



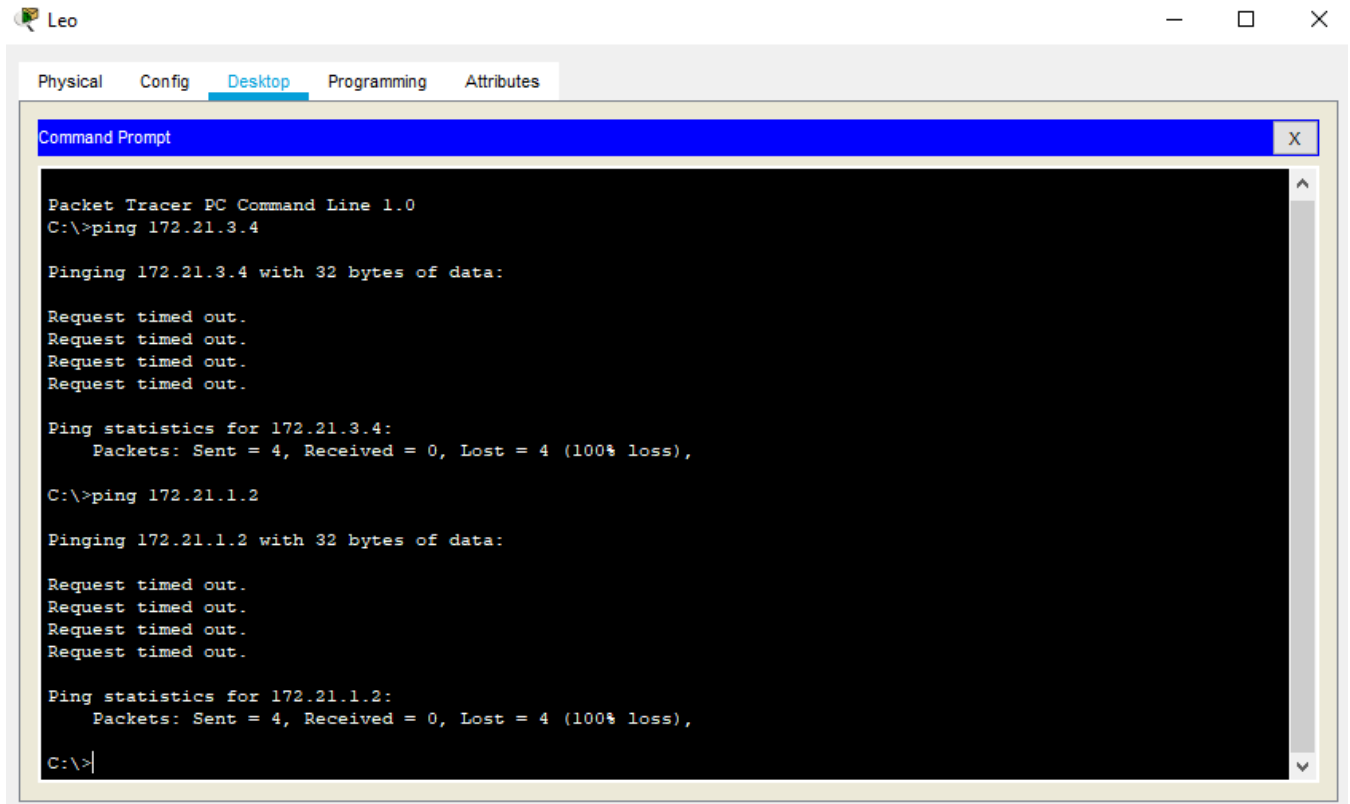
```
Switch2
Physical Config CLI Attributes
IOS Command Line Interface

Switch>enable
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
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
Switch(config)#
Switch(config)#
Switch(config)#int fa 0/1
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 10
Switch(config-if)#int fa 0/2
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 10
Switch(config-if)#exit
Switch(config)#int fa 0/3
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 20
Switch(config-if)#int fa 0/4
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 20
Switch(config-if)#exit
Switch(config)#int fa 0/5
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
```

## 10. Uji coba ping

- PC leo ke PC aries



Leo

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

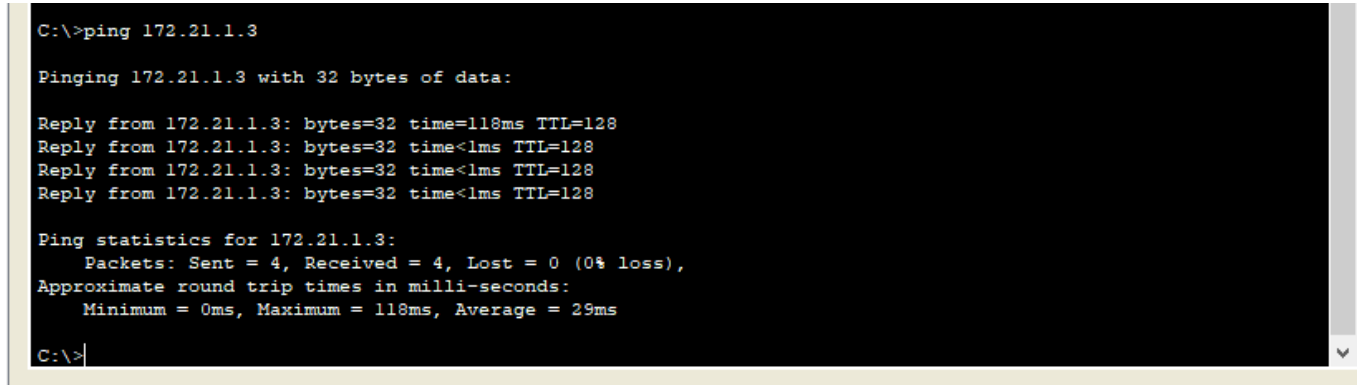
Pinging 172.21.1.2 with 32 bytes of data:

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

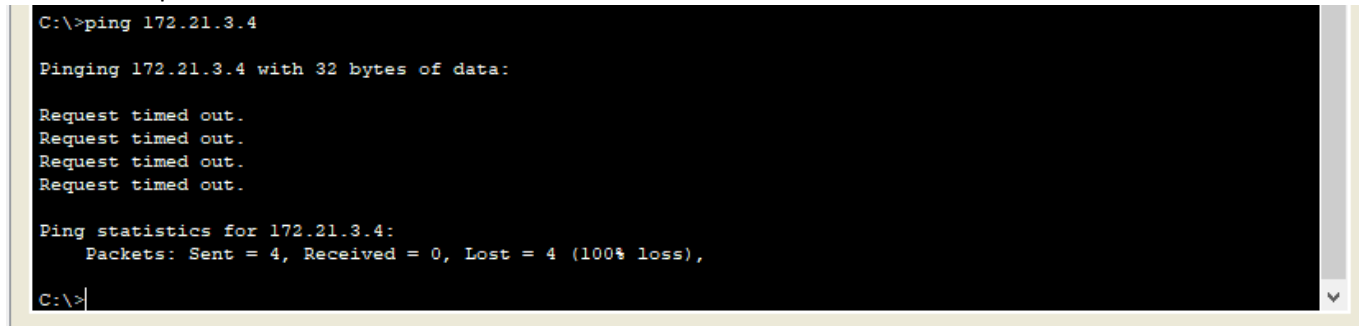
Pinging 172.21.1.3 with 32 bytes of data:

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

C:\>
```

- PC leo ke PC pisces



```
C:\>ping 172.21.3.4

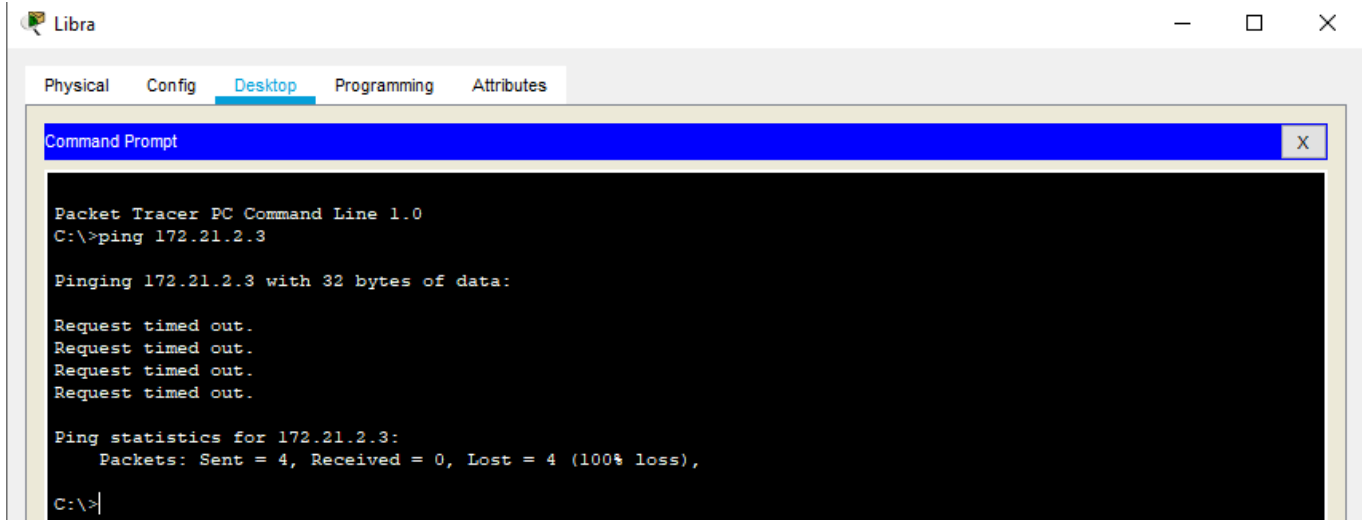
Pinging 172.21.3.4 with 32 bytes of data:

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:\>
```

- PC libra ke PC cancer



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

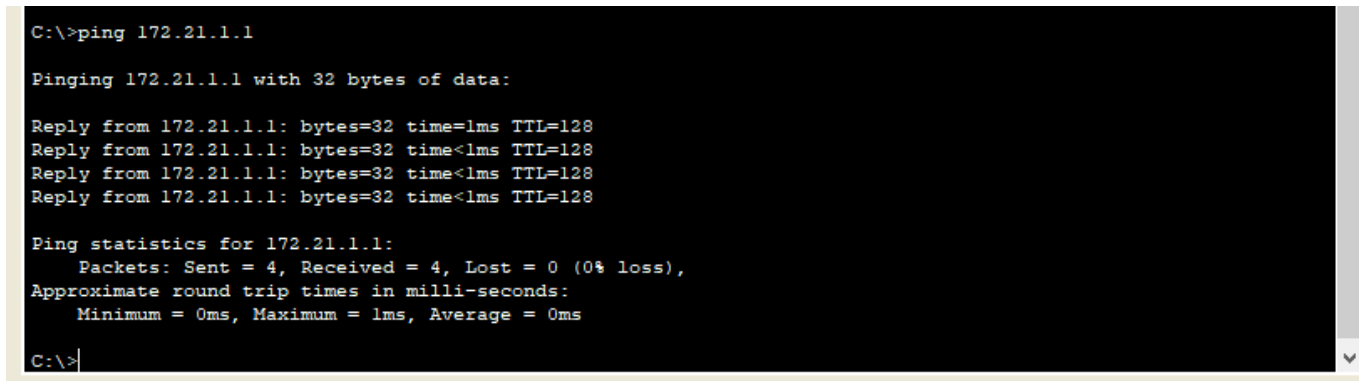
Pinging 172.21.2.3 with 32 bytes of data:

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:\>
```

- PC libra ke PC leo



```
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:\>
```

Dari hasil percobaan diatas, dapat disimpulkan apabila PC berada pada VLAN yang sama, maka akan menghasilkan status Reply pada saat pengujian ping, seperti contohnya PC leo ke PC aquarius dan PC libra ke PC leo.

Akan tetapi jika berada pada VLAN yang berbeda akan menghasilkan status RTO seperti contoh pada PC leo ke PC aries, PC leo ke PC pisces, dan PC libra ke PC cancer