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NIM : L200180079

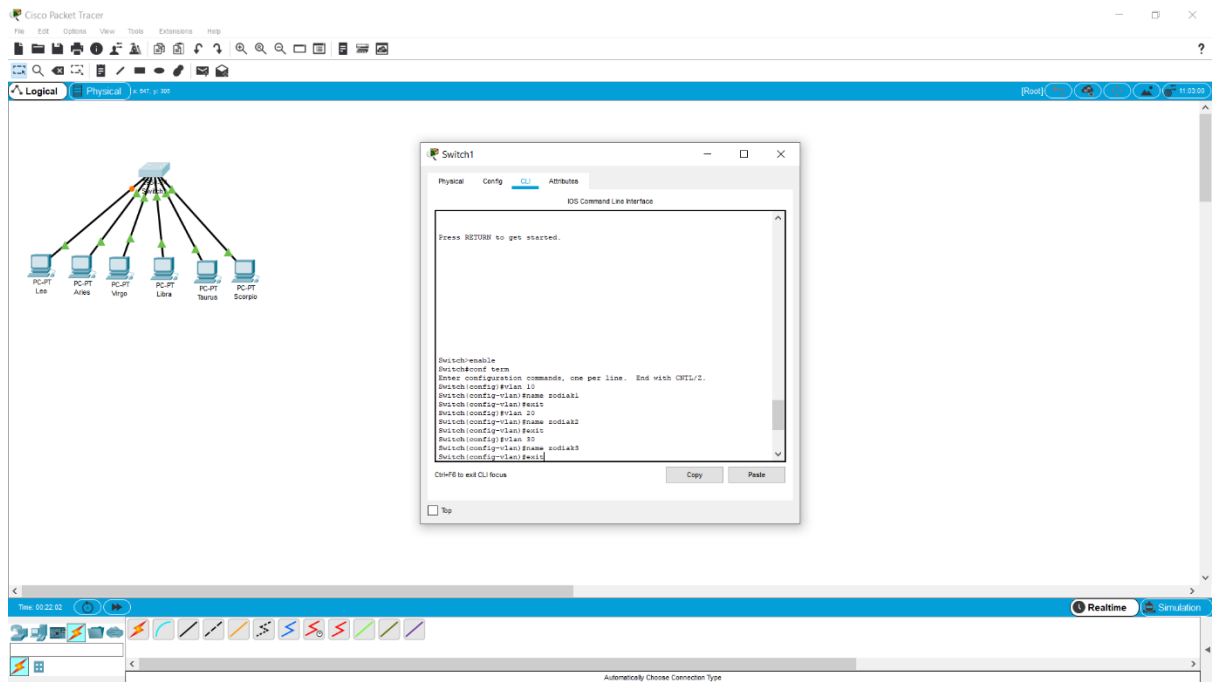
PRAKTIKUM JARINGAN

MODUL 4

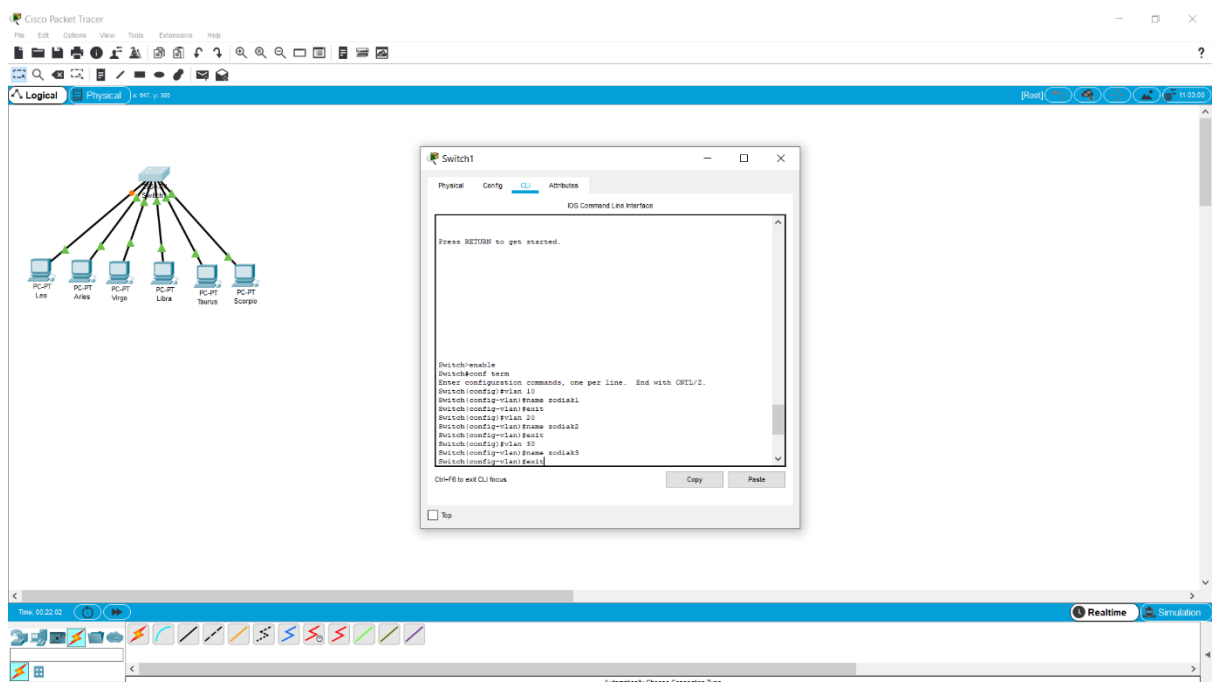
Kegiatan

1. Topologi 1

Desain topologi, penamaan, dan penyetingan IP Address



Konfigurasi pada switch untuk membuat 3 vlan dengan nama zodiak1, zodiak2, dan zodiak3



Konfigurasi port-port switch ke dalam vlan zodiak1, zodiak2, dan zodiak3 dengan anggota sebagai berikut :

- Zodiak1 = Leo dan pisces
- Zodiak2 = Aries dan Taurus
- Zodiak3 = Virgo dan Scorpio

```
Switch1
CLI
IOS Command Line Interface

Switch>enable
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)#
```

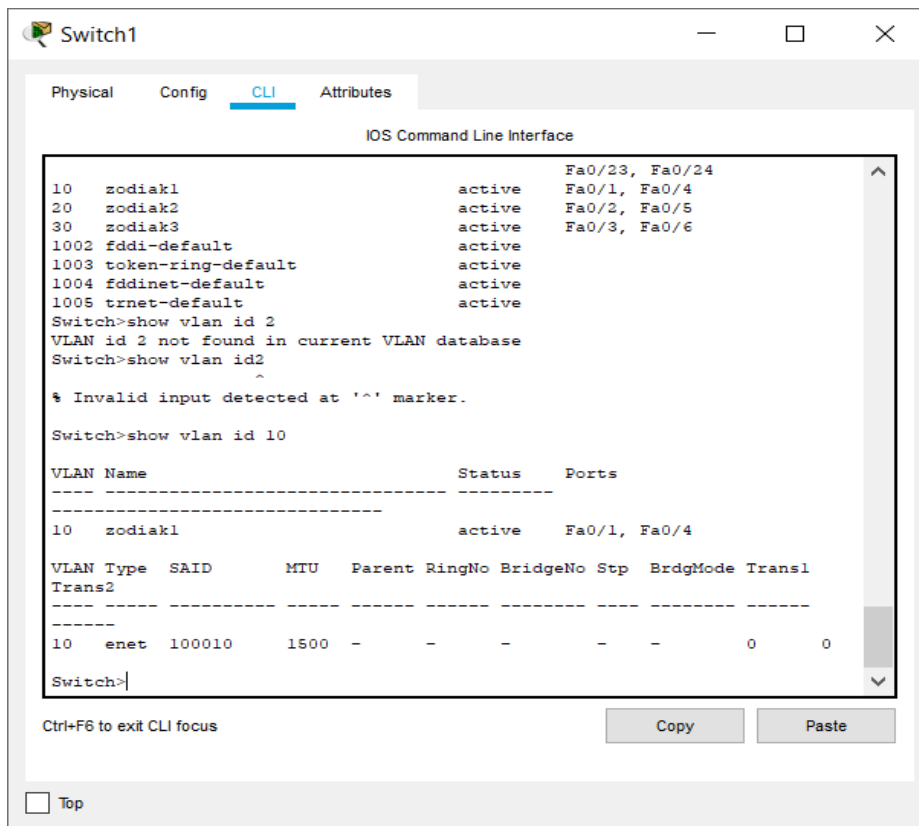
Melihat konfigurasi keseluruhan

```
Switch1
CLI
IOS Command Line Interface

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,
Fa0/15, Fa0/16, Fa0/17,
Fa0/19, Fa0/20, Fa0/21,
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>
```

Melihat konfigurasi vlan 10



The screenshot shows the CLI of a switch named 'Switch1'. The 'CLI' tab is selected. The command 'show vlan id 10' has been entered, resulting in two tables of information.

First table (VLAN Name, Status, Ports):

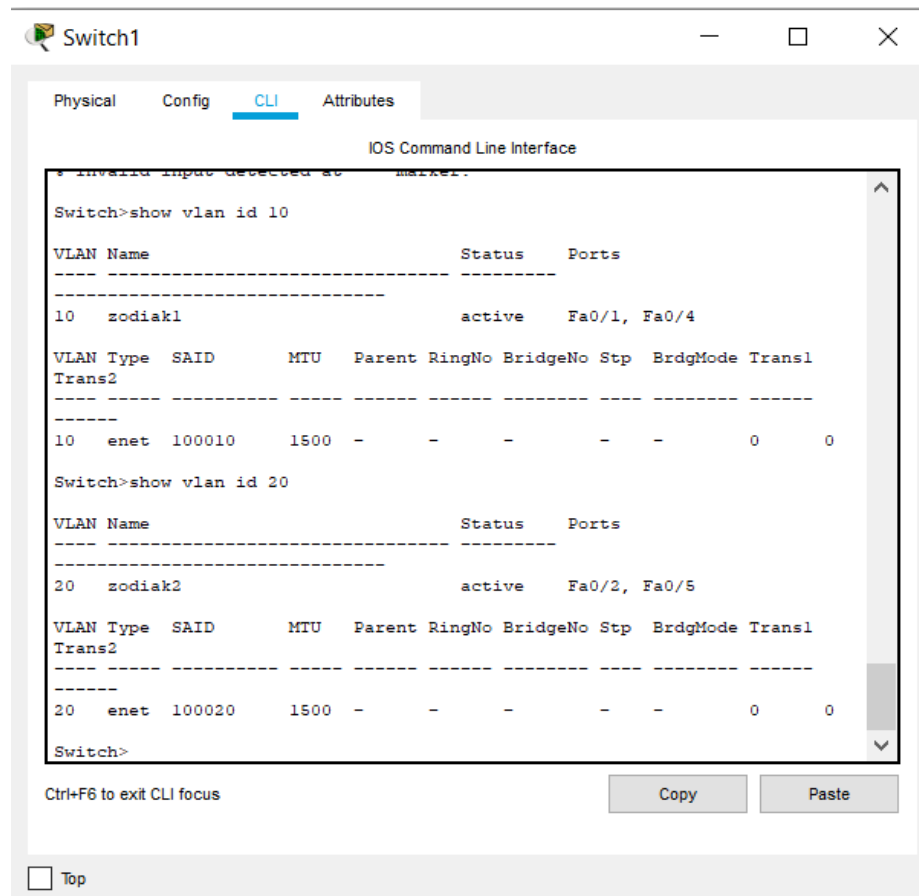
VLAN Name	Status	Ports
10 zodiak1	active	Fa0/1, Fa0/4

Second table (VLAN Type, SAID, MTU, Parent RingNo, BridgeNo, Stp, BrdgMode, Trans1, Trans2):

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

The CLI prompt is 'Switch>'.

Melihat konfigurasi vlan 20



The screenshot shows the CLI of a switch named 'Switch1'. The 'CLI' tab is selected. The command 'show vlan id 20' has been entered, resulting in two tables of information.

First table (VLAN Name, Status, Ports):

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

Second table (VLAN Type, SAID, MTU, Parent RingNo, BridgeNo, Stp, BrdgMode, Trans1, Trans2):

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

The CLI prompt is 'Switch>'.

Melihat konfigurasi vlan 30

Switch1

Physical

Config

CLI

Attributes

IOS Command Line Interface

* Invalid input detected at marker.

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	Transl
10	enet	100010	1500	-	-	-	-	0 0

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	Transl
20	enet	100020	1500	-	-	-	-	0 0

Switch>

Ctrl+F6 to exit CLI focus

Copy

Paste

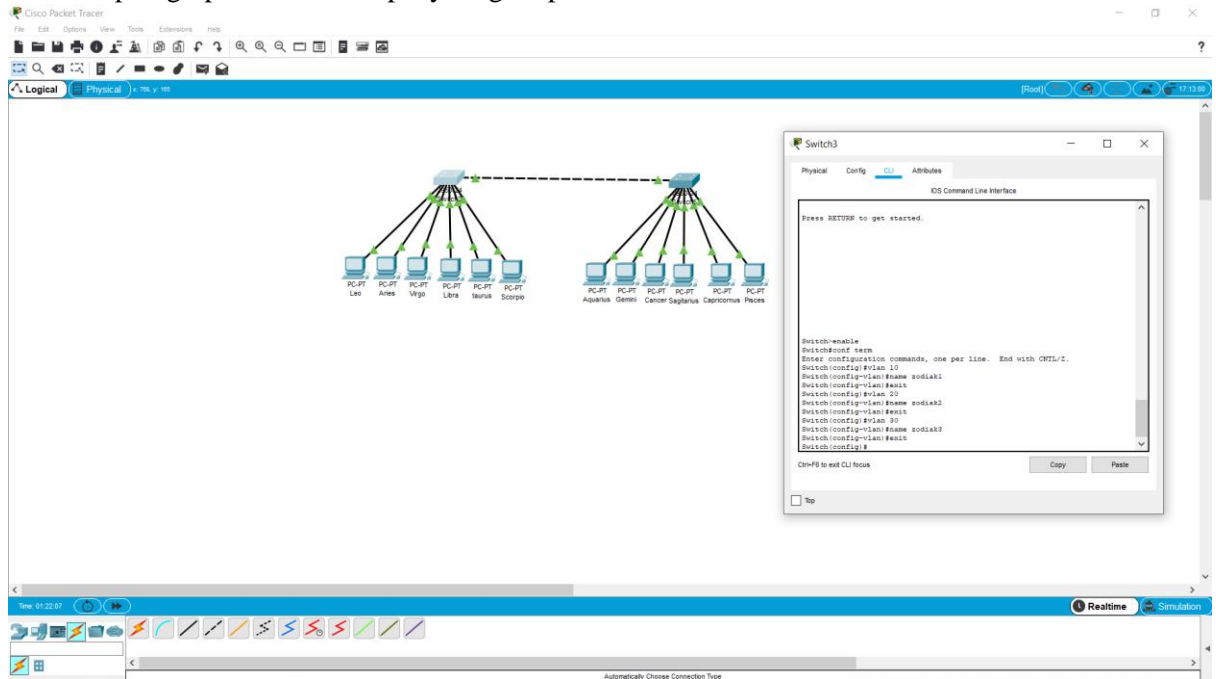
☐ Top

Tabel informasi konfigurasi

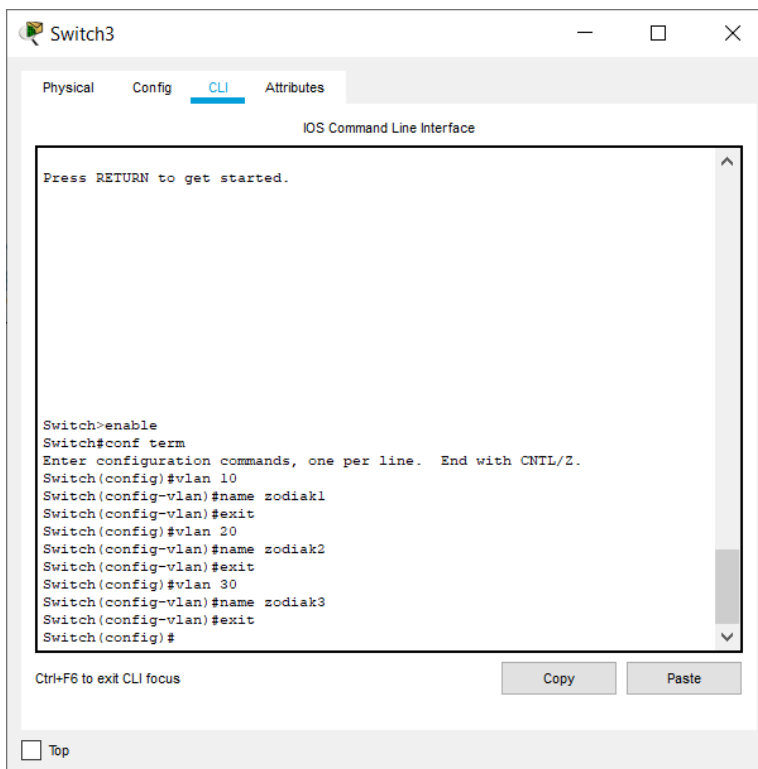
No	Variabel		Nilai	
1	No vlan	10	20	30
2	Nama Vlan	Zodiak1	Zodiak2	Zodiak3
3	Port	Fa 0/1, Fa 0/4	Fa 0/2, Fa 0/5	Fa 0/3, Fa 0/6
4	Status	Active	Active	Active

2. Topologi 2

Disain topologi ,penamaan, dan penyetingan Ip Adress

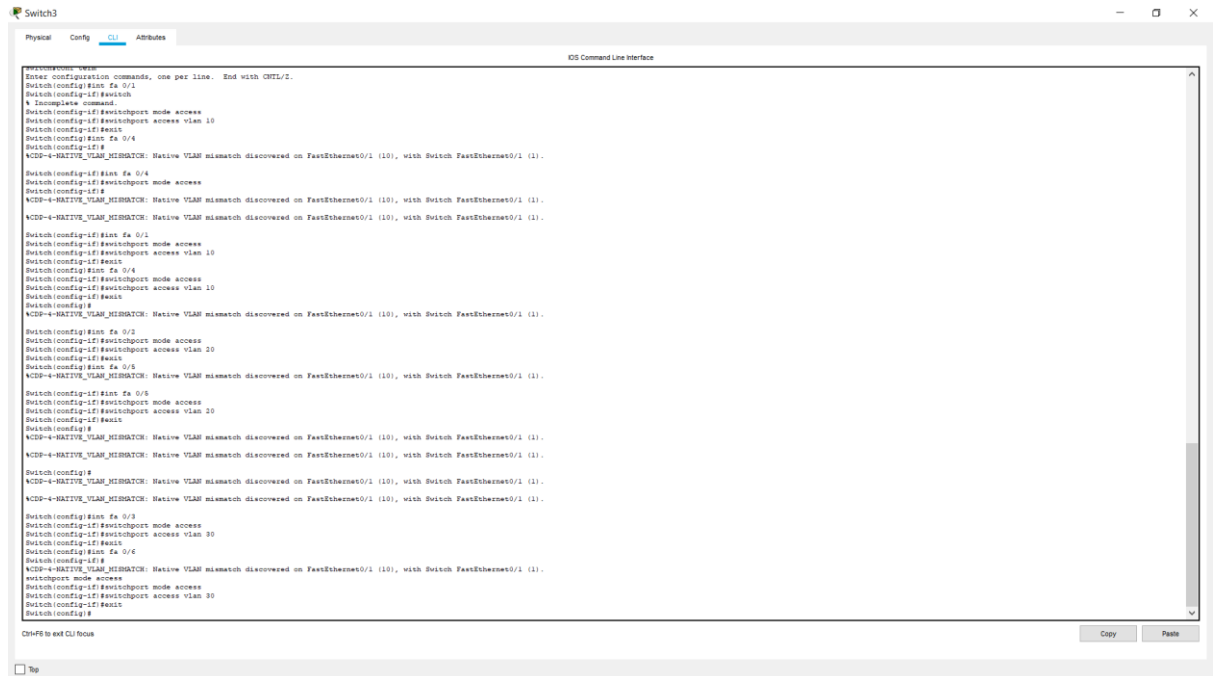


Konfigurasi pada switch untuk membuat 3 vlan dengan nama zodiak1, zodiak2, dan zodiak3



Konfigurasi port-port swtich ke dalam vlan zodiak1, zodiak2, dan zodiak3 dengan anggota sebagai berikut:

- Zodiak1 = leo1, libra 1, aquarius1 dan gemini1
- Zodiak2 = aries1, taurus1, cancer1 dan sagitarius1
- Zodiak3 = virgo1, scorpio1, caprocons1, dan pisces

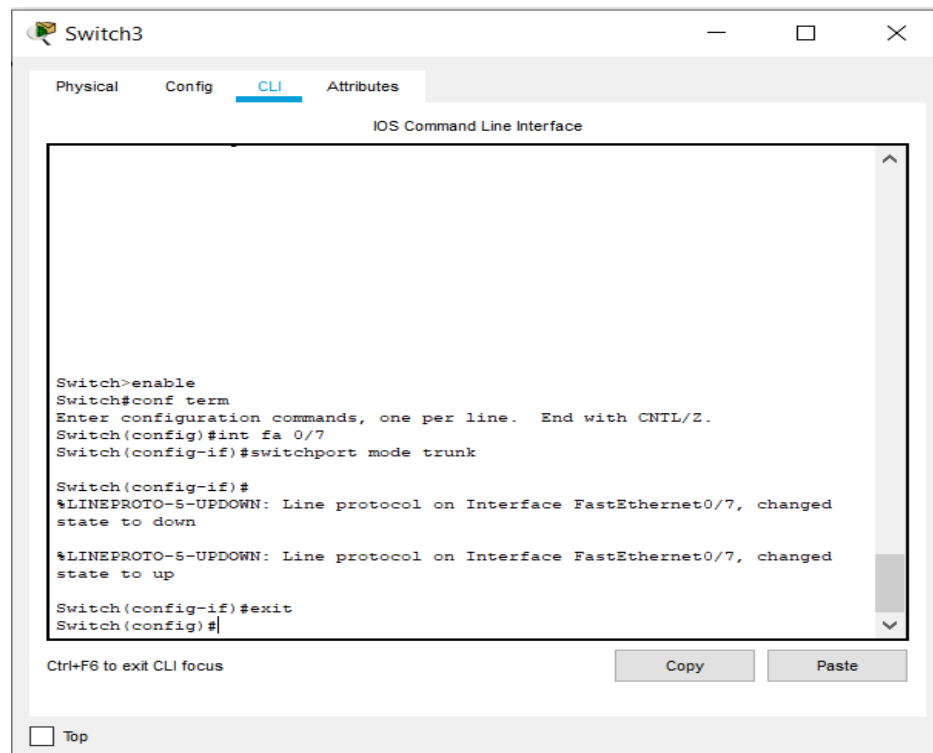


```
Switch3
Physical Config CLI Attributes
IOS Command Line Interface

Switch>enable
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)#exit
Switch(config)#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 0/4
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 10
Switch(config-if)#exit
Switch(config)#int fa 0/1
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 10
Switch(config-if)#exit
Switch(config)#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 0/5
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 10
Switch(config-if)#exit
Switch(config)#int fa 0/5
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 10
Switch(config-if)#exit
Switch(config)#int fa 0/6
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 10
Switch(config-if)#exit
Switch(config)#int fa 0/6
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 10
Switch(config-if)#exit
Switch(config)#

Ctrl+F6 to exit CLI focus
```

Konfigurasi vlan trunking pada switch1



```
Switch3
Physical Config CLI Attributes
IOS Command Line Interface

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

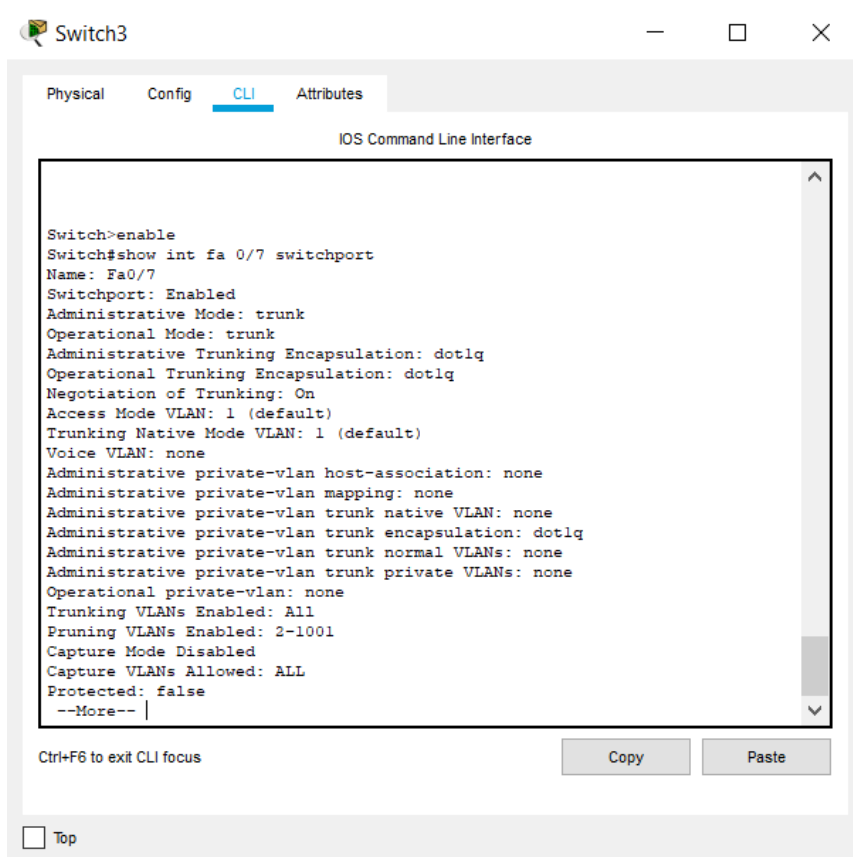
Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/7, changed
state to down

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

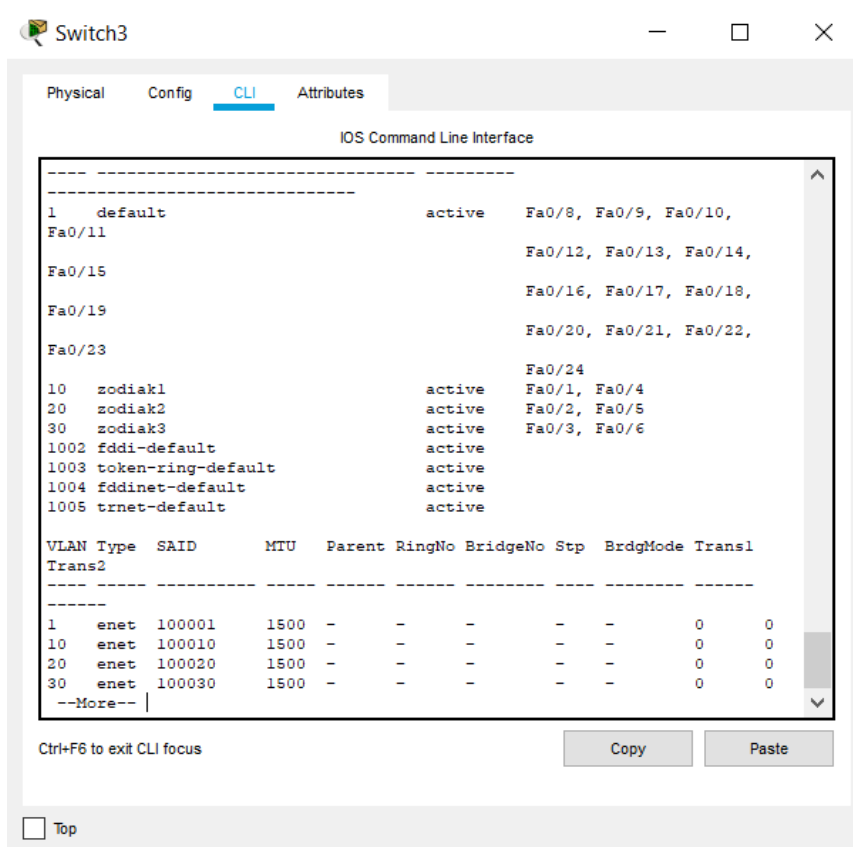
Switch(config-if)#exit
Switch(config)#

Ctrl+F6 to exit CLI focus
```

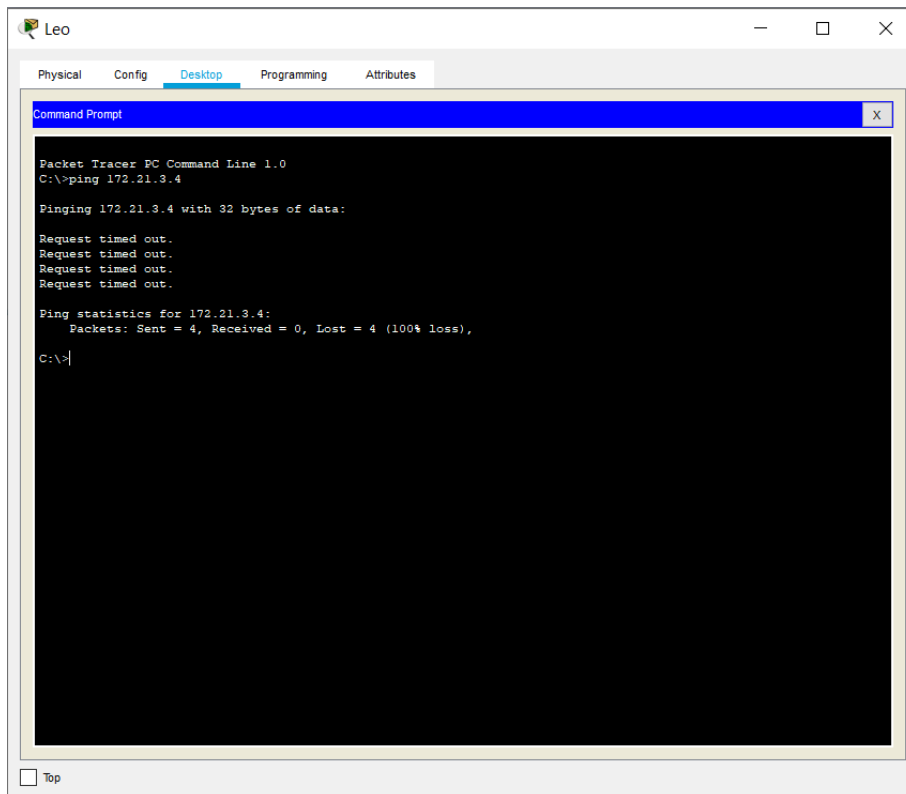
Melihat konfigurasi trucking pada switch1



Tampilan show vlan

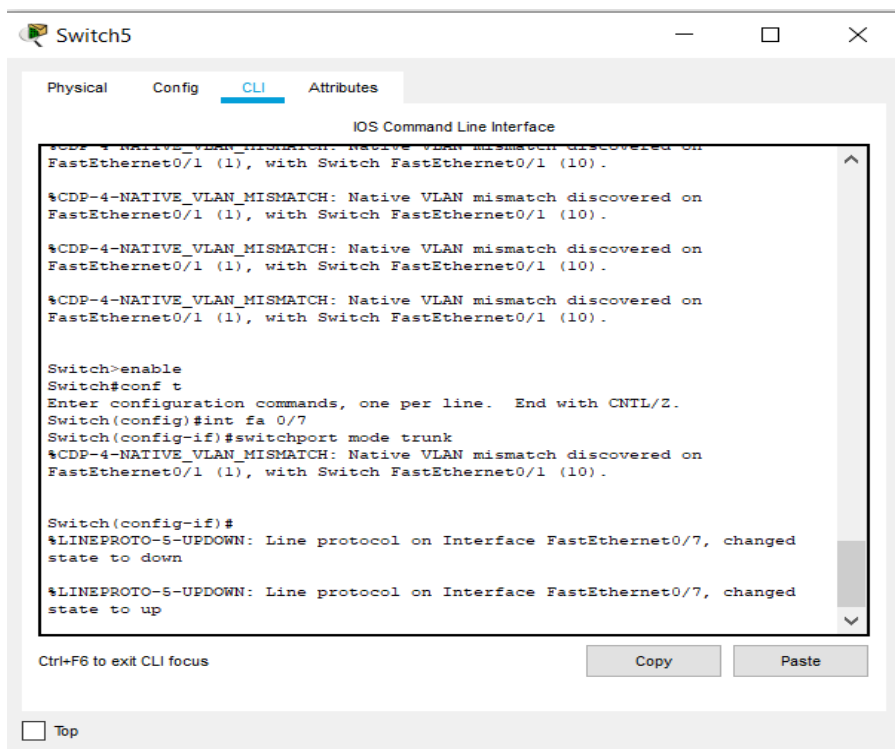


Uji ping pc leo ke pisces



Hasilnya RTO, karena pada PC pisces tidak berada pada vlan yang sama dengan pc leo

Konfigurasi vlan trucking pada switch2



Melihat konfigurasi trucking pada switch 2

Switch5

Physical
Config
CLI
Attributes

IOS Command Line Interface

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

--More--

Ctrl+F6 to exit CLI focus

Copy

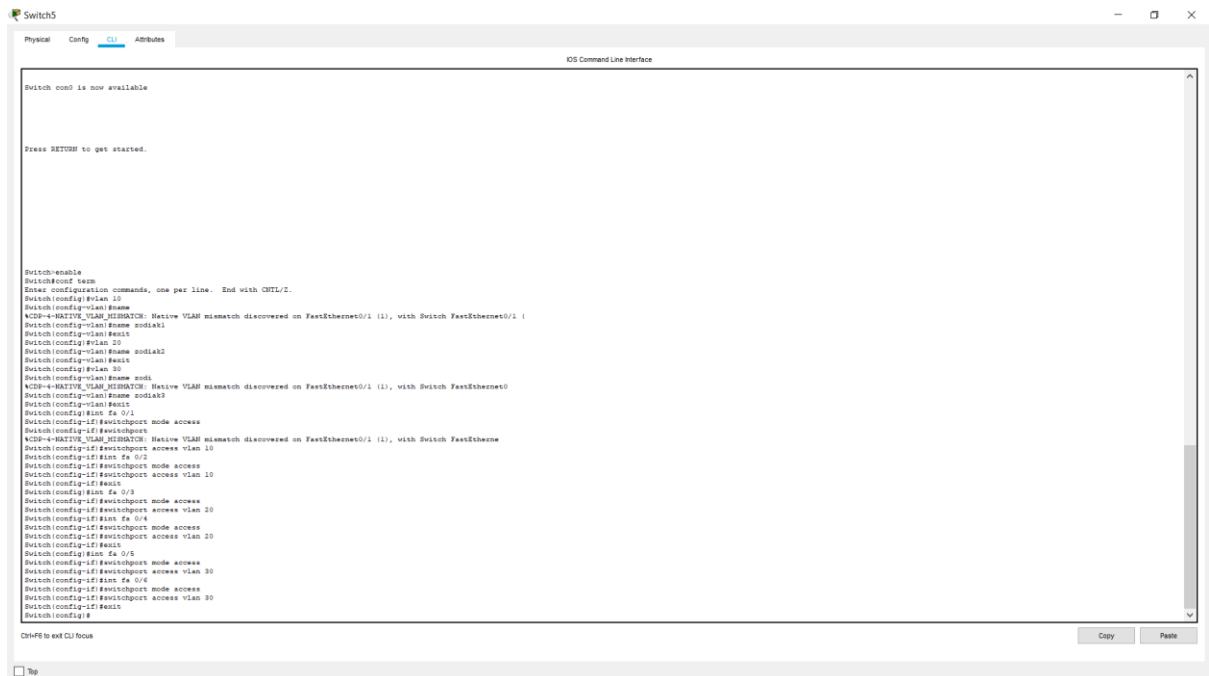
Paste

☐ Top

Pada langkah ini port-port fastethernet belum terkonfigurasi ke dalam vlan, bahkan vlangnya blm dibuat

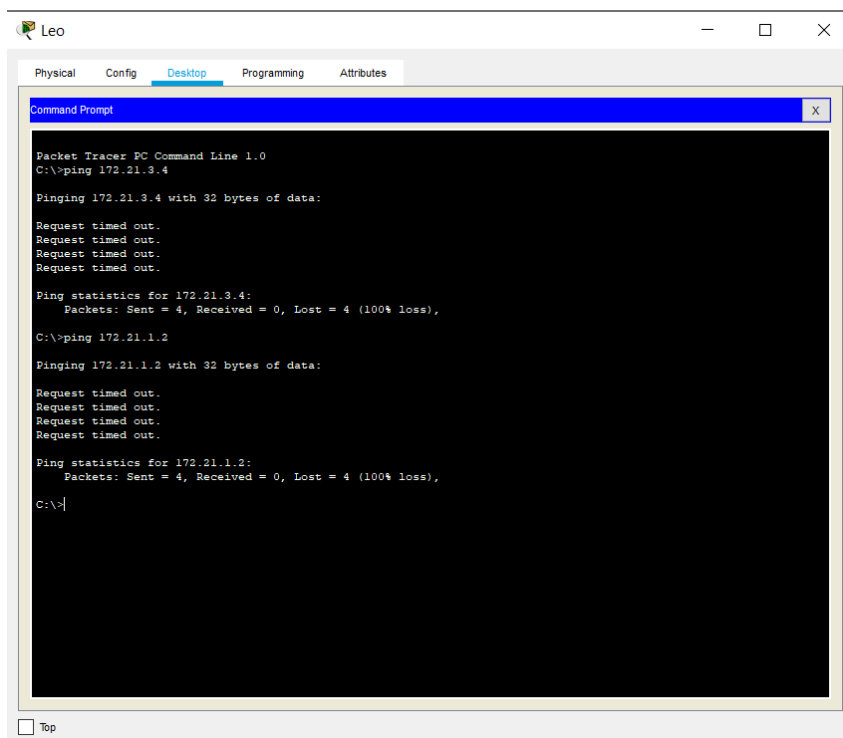
Konfigurasi port-port switch ke dalam vlan zodiak1, zodiak2, dan zodiak3 dengan keanggotaan sebagai berikut:

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



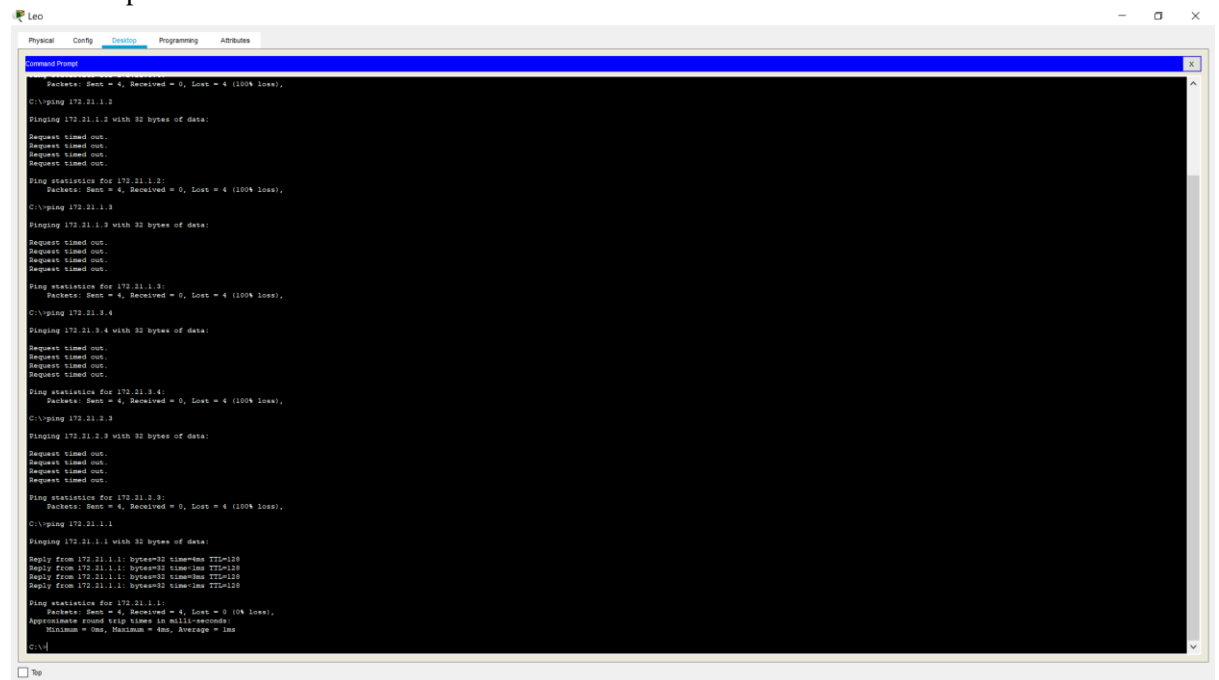
Uji ping

- Pc leo ke pc aries

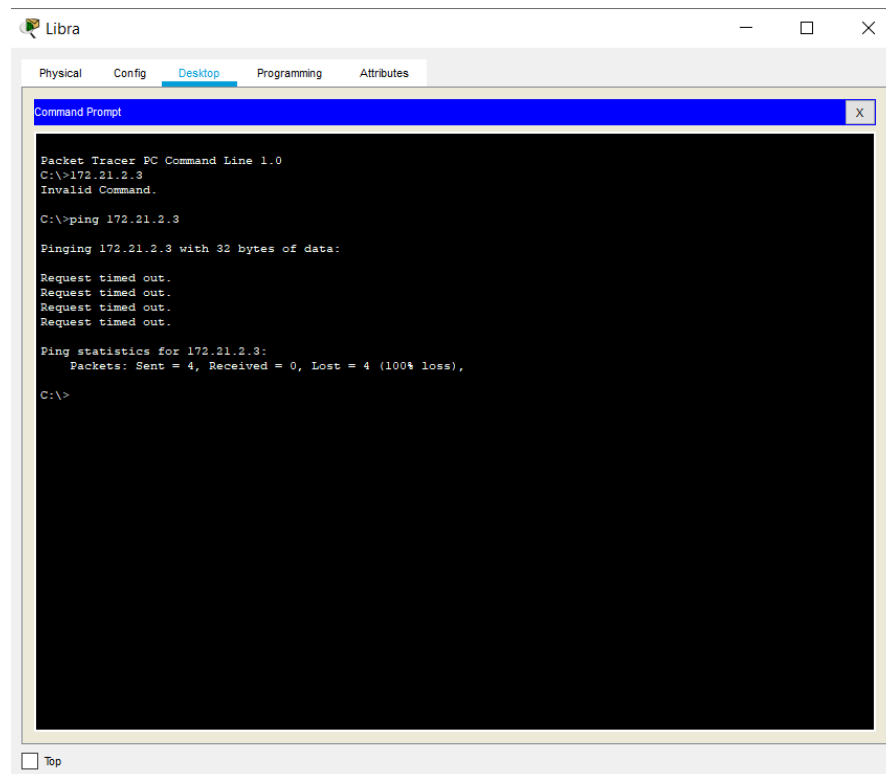


Pc leo ke pc aquarius

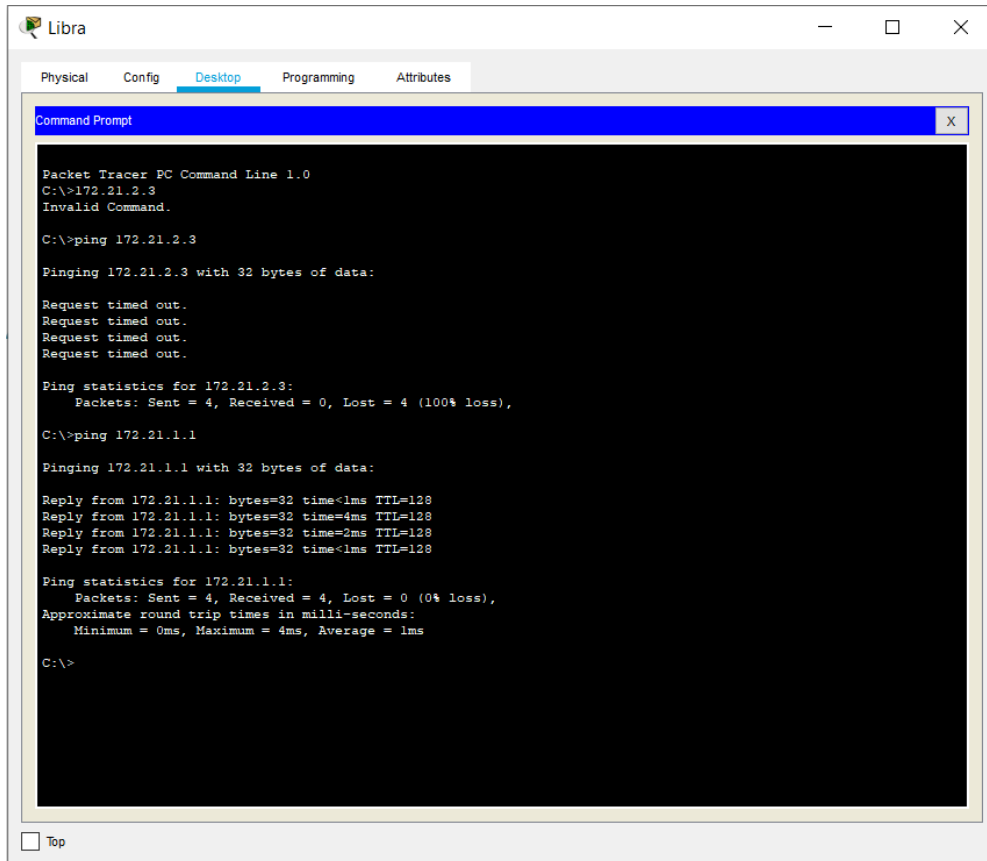
Pc leo ke pisces



Pc libra ke pc cancer



Pc libra ke leo



The screenshot shows the Packet Tracer PC Command Line interface for PC Libra. The window has tabs for Physical, Config, Desktop, Programming, and Attributes, with Desktop selected. The Command Prompt shows the following commands and output:

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

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:\>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=4ms TTL=128
Reply from 172.21.1.1: bytes=32 time=2ms 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 = 4ms, Average = 1ms

C:\>
```

At the bottom left of the window, there is a checkbox labeled "Top".

Dari beberapa percobaan diatas, dapat disimpulkan apabila PC berada pada Vlan yang sama, maka akan menghasilkan balasan dari ip tujuan pada saat melakukan ping, tetapi jika berbeda Vlan maka akan RTO