

**PRAKTIKUM JARINGAN KOMUNIKASI**

**PRACTICUM REPORT 4 : VIRTUAL LAN & TURNING**



**Disusun Oleh :**

**HAFSHAH FITRI AFIFAH**

**L200184172**

**INFORMATION TECHNOLOGY**

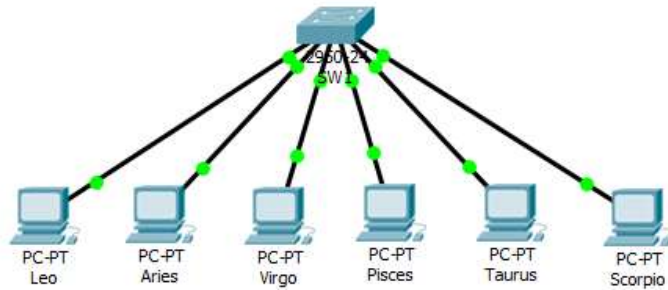
**FACULTY OF COMMUNICATION AND INFORMATICS**

**MUHAMMADIYAH UNIVERSITY OF SURAKARTA**

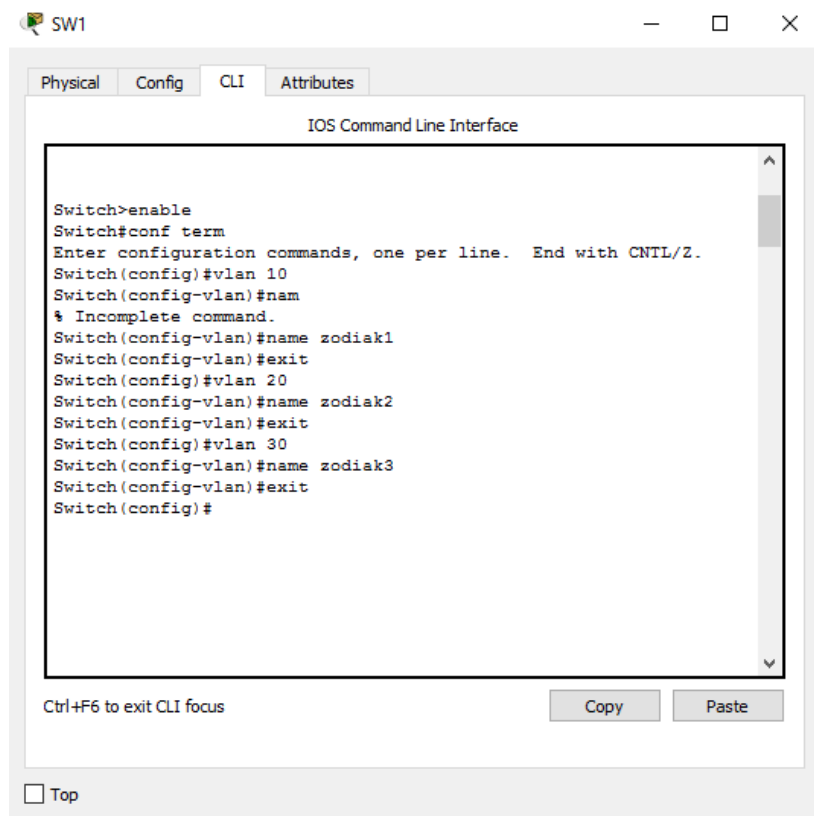
**2020**

## # KEGIATAN 1 . TOPOLOGI 1

### A. Gambar Topologi

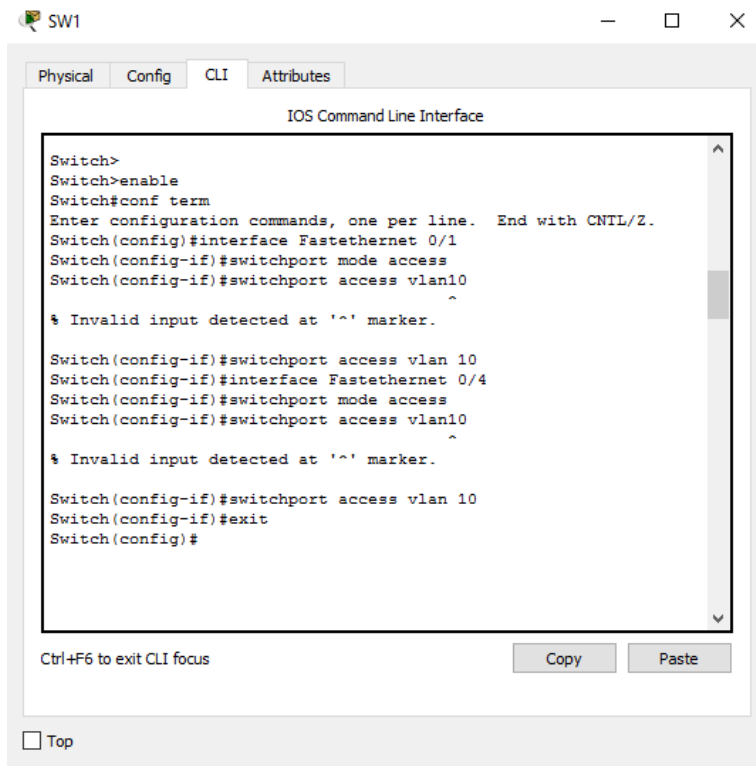


### B. Membuat 3 VLAN zodiak

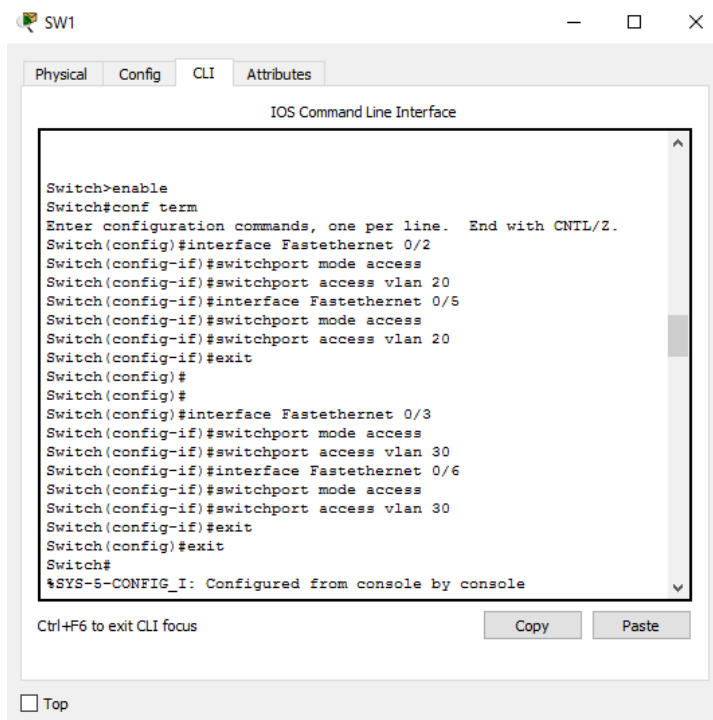


### C. Membuat Konfigurasi Port Switch ke dalam VLAN zodiac

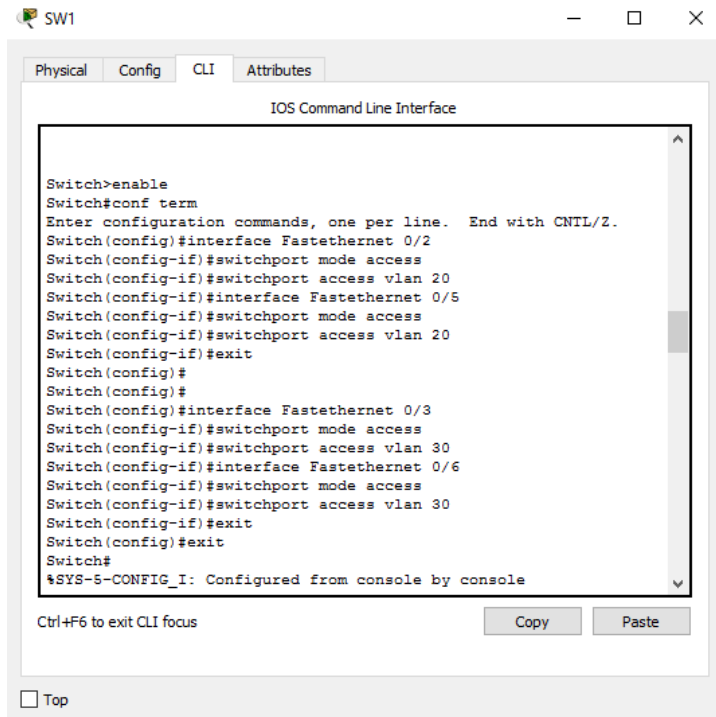
- Zodiac 1 = Leo dan Libra



- Zodiac 2 = Aries dan Taurus

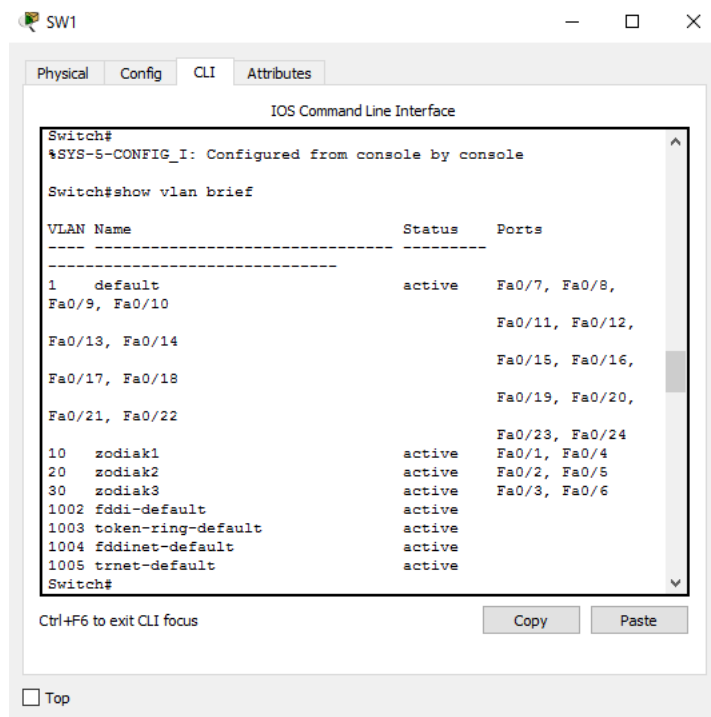


➤ Zodiac 3 = Virgo dan Scorpio

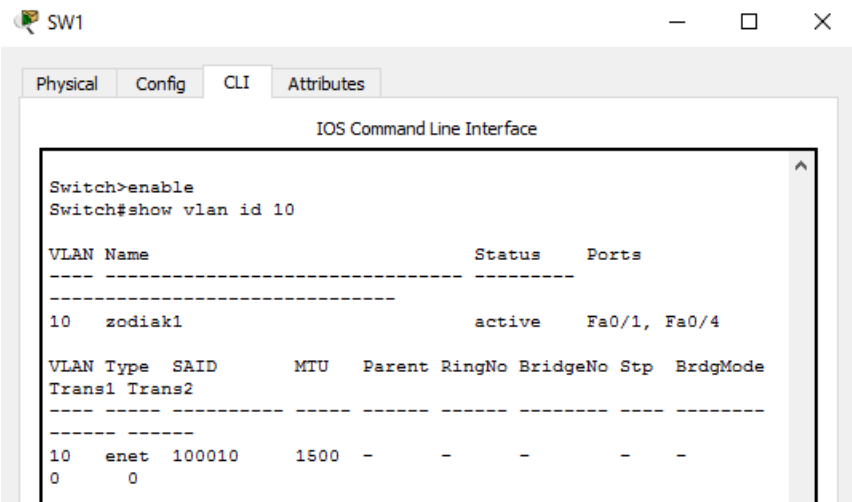


## D. Melihat Konfigurasi

➤ Informasi Vlan keseluruhan



➤ Informasi Vlan 10



The screenshot shows the CLI of a switch named SW1. The user has entered the command 'show vlan id 10'. The output displays two tables. The first table shows VLAN 10 named 'zodiak1' with status 'active' and ports 'Fa0/1, Fa0/4'. The second table shows the VLAN details for 'zodiak1'.

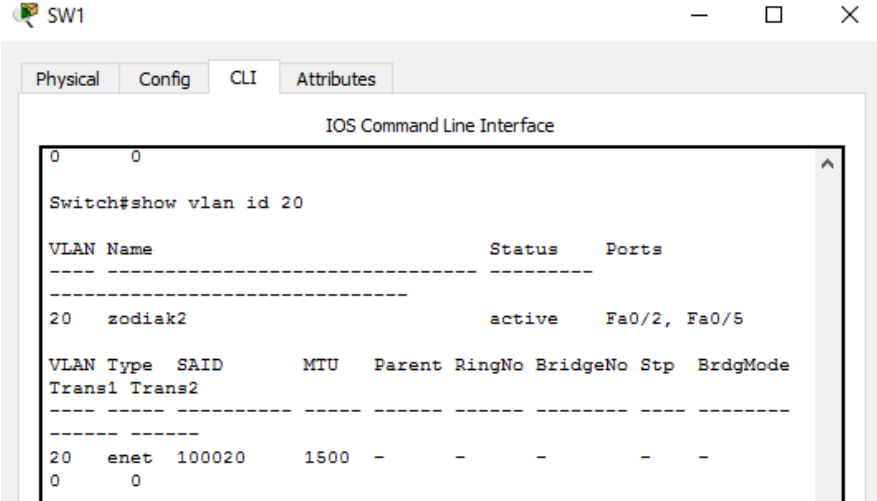
```
Switch>enable
Switch#show vlan id 10
```

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



The screenshot shows the CLI of a switch named SW1. The user has entered the command 'show vlan id 20'. The output displays two tables. The first table shows VLAN 20 named 'zodiak2' with status 'active' and ports 'Fa0/2, Fa0/5'. The second table shows the VLAN details for 'zodiak2'.

```
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

Switch#
  
```

## E. TUGAS 6A

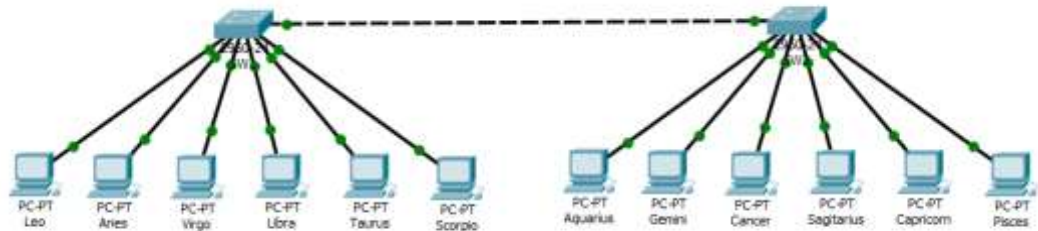
No	Variabel	Nilai		
1	Nomor VLAN	10	20	30
2	Nama VLAN	Zodiak1	Zodiak2	Zodiak3
3	Port	Fa 0/1, Fa 0/4	Fa 0/2, Fa 0/5	Fa 0/3, Fa 0/6
4	Status	Active	Active	Active

## F. TUGAS 6B . Explain

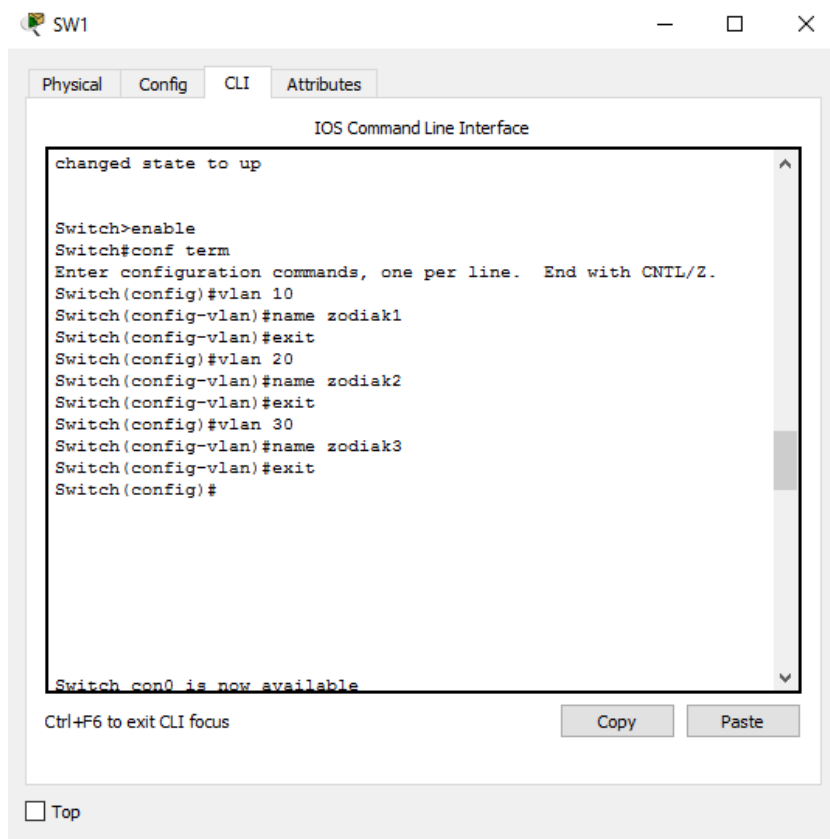
- Pada VLAN nomer 10 (zodiak1), terdapat 2 port, yaitu fa 0/1 dan fa 0/4 yang berstatus aktif
- Pada VLAN nomer 20 (zodiak2), terdapat 2 port, yaitu fa 0/2 dan fa 0/5 yang berstatus aktif
- Pada VLAN nomer 30 (zodiak3), terdapat 2 port, yaitu fa 0/3 dan fa 0/6 yang berstatus aktif

## # KEGIATAN 2 . TOPOLOGI 2

### A. Gambar Topologi

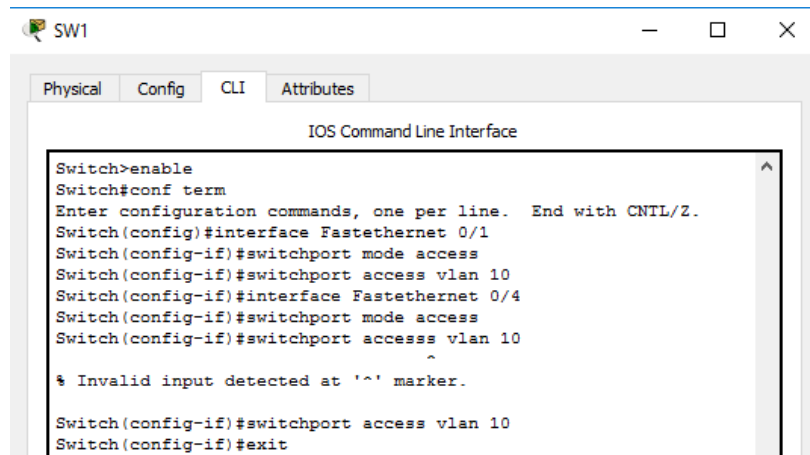


### B. Membuat 3 VLAN Zodiak



### C. Membuat Konfigurasi Port Switch ke dalam VLAN zodiac

- Zodiac 1 = Leo dan Libra

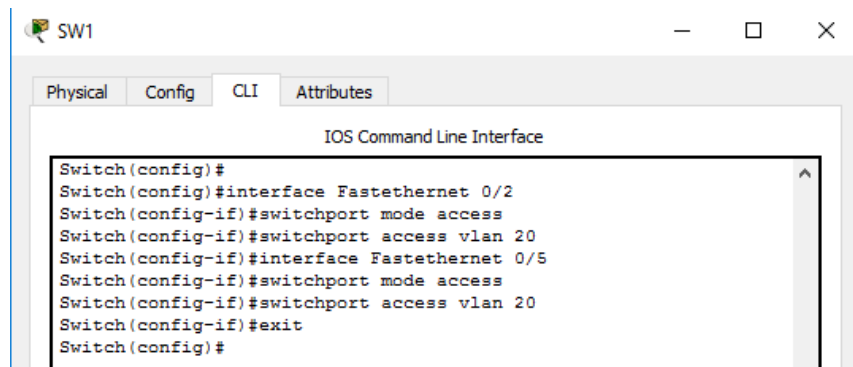


The screenshot shows the CLI window of a switch named SW1. The 'CLI' tab is selected. The command history shows the following sequence of commands:

```
Switch>enable
Switch#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#interface FastEthernet 0/1
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 10
Switch(config-if)#interface FastEthernet 0/4
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 10
Switch(config-if)#switchport accesss vlan 10
Switch(config-if)#switchport access vlan 10
Switch(config-if)#exit
```

Note: There is an error message in the original image: '% Invalid input detected at '^' marker.' which appears to be a typo for a tilde character.

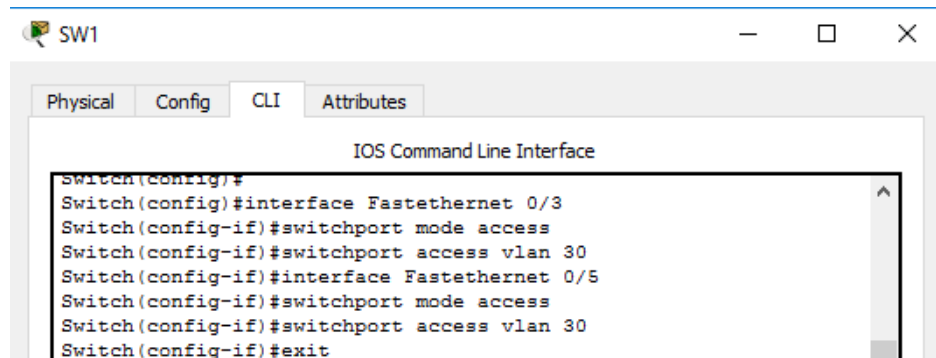
- Zodiac 2 = Aries dan Taurus



The screenshot shows the CLI window of a switch named SW1. The 'CLI' tab is selected. The command history shows the following sequence of commands:

```
Switch(config)#
Switch(config)#interface FastEthernet 0/2
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 20
Switch(config-if)#interface FastEthernet 0/5
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 20
Switch(config-if)#exit
Switch(config)#
```

- Zodiac 3 = Virgo dan Scorpio

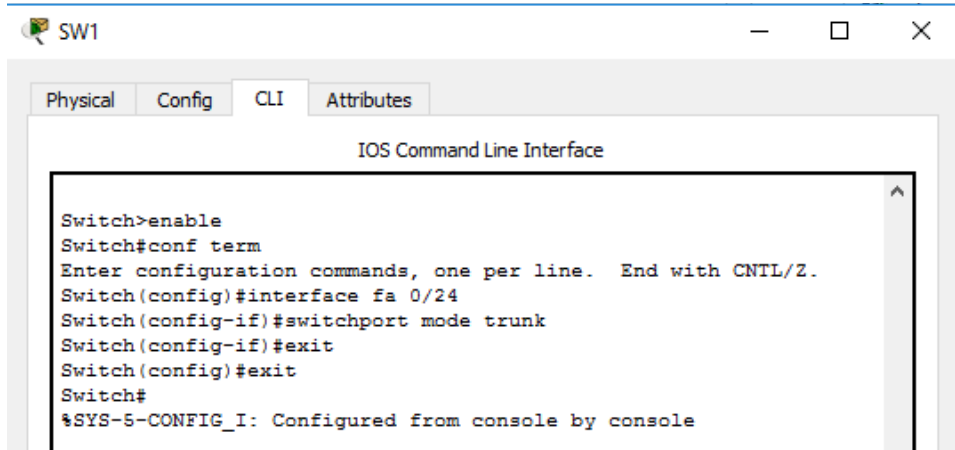


The screenshot shows the CLI window of a switch named SW1. The 'CLI' tab is selected. The command history shows the following sequence of commands:

```
Switch(config)#
Switch(config)#interface FastEthernet 0/3
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 30
Switch(config-if)#interface FastEthernet 0/5
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 30
Switch(config-if)#exit
```



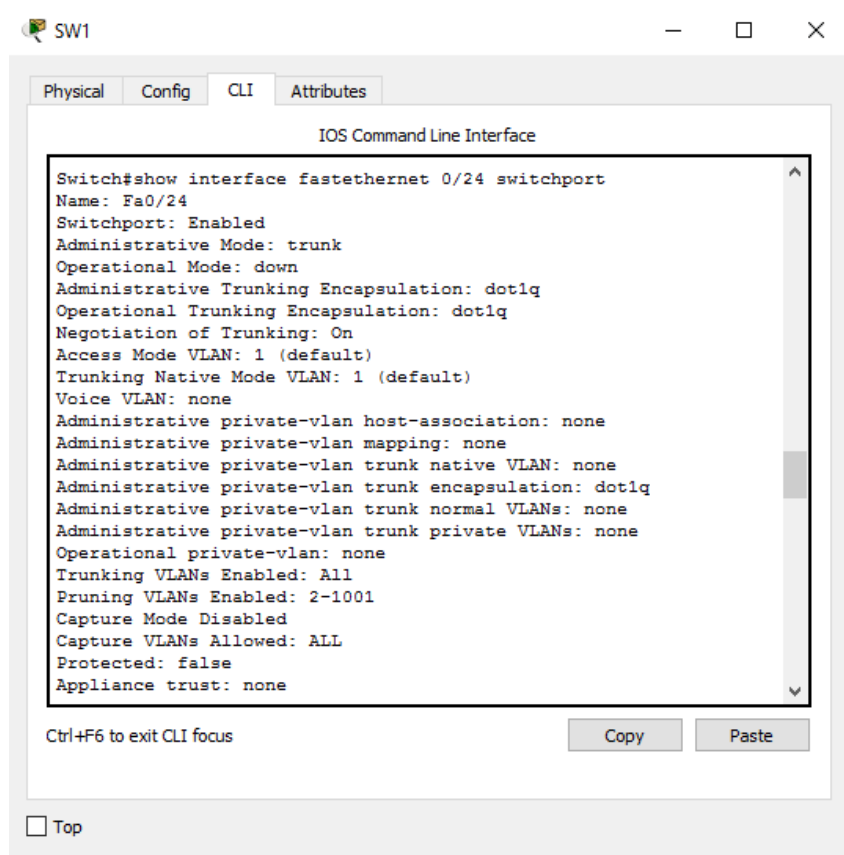
## D. Konfigurasi VLAN trunking pada switch 1



```
Switch>enable
Switch#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#interface fa 0/24
Switch(config-if)#switchport mode trunk
Switch(config-if)#exit
Switch(config)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console
```

## E. Konfigurasi Trunking

### ➤ Switchport



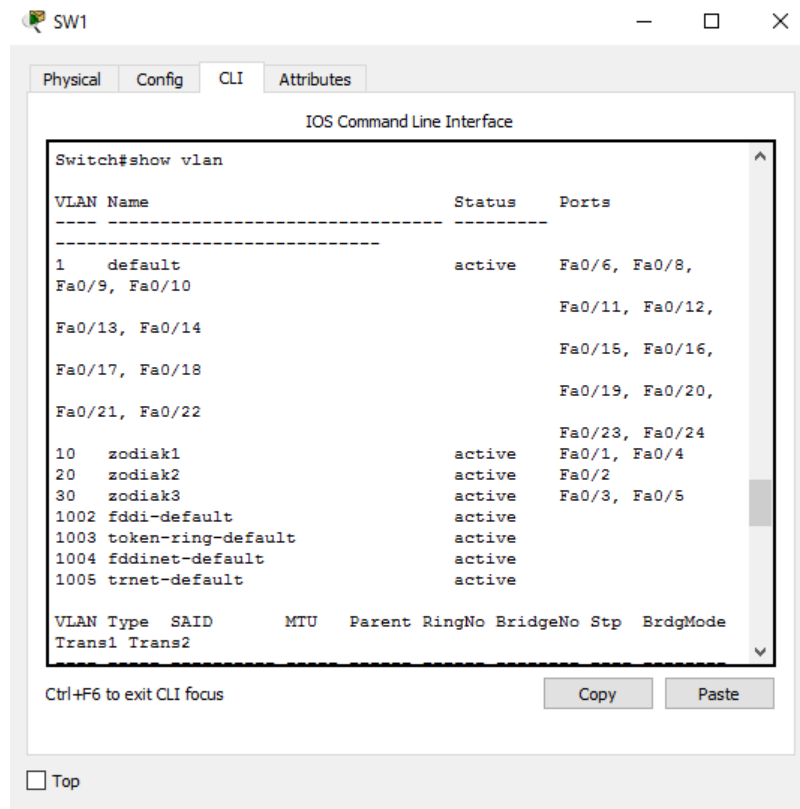
```
Switch#show interface fastethernet 0/24 switchport
Name: Fa0/24
Switchport: Enabled
Administrative Mode: trunk
Operational Mode: down
Administrative Trunking Encapsulation: dot1q
Operational Trunking Encapsulation: dot1q
Negotiation of Trunking: On
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 1 (default)
Voice VLAN: none
Administrative private-vlan host-association: none
Administrative private-vlan mapping: none
Administrative private-vlan trunk native VLAN: none
Administrative private-vlan trunk encapsulation: dot1q
Administrative private-vlan trunk normal VLANs: none
Administrative private-vlan trunk private VLANs: none
Operational private-vlan: none
Trunking VLANs Enabled: All
Pruning VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL
Protected: false
Appliance trust: none
```

Ctrl+F6 to exit CLI focus

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## ➤ Show Vlan



## F. TUGAS 7A . EXPLAIN

Interface Fastethernet 0/24 switchport menampilkan :

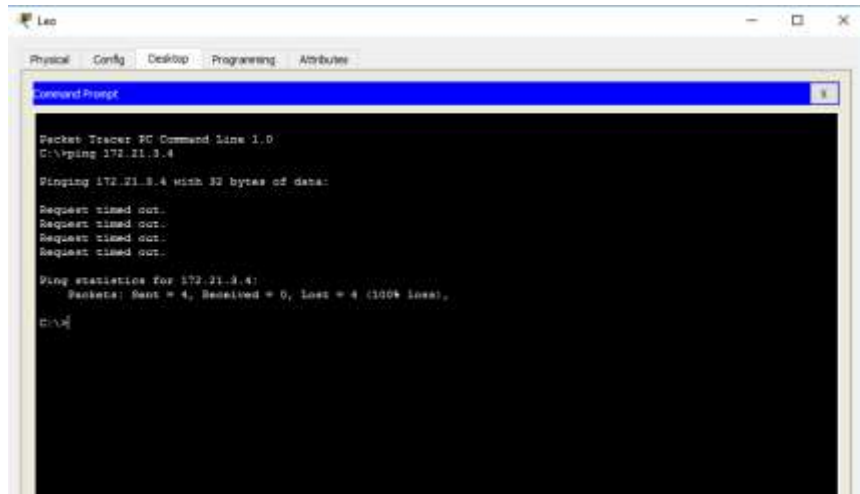
Switchport : enable

Administrative mode : trunk

Operational mode : trunk

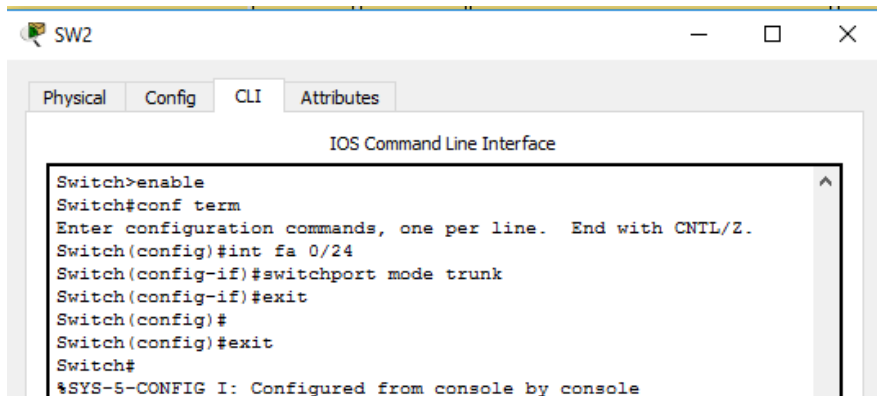
No	Variabel	Nilai		
1	Nomor VLAN	10	20	30
2	Nama VLAN	Zodiak1	Zodiak2	Zodiak3
3	Port	Fa 0/1, Fa 0/4	Fa 0/2, Fa 0/5	Fa 0/3, Fa 0/6
4	Status	Active	Active	Active

## G. Ping dari PC Leo ke PC Pisces

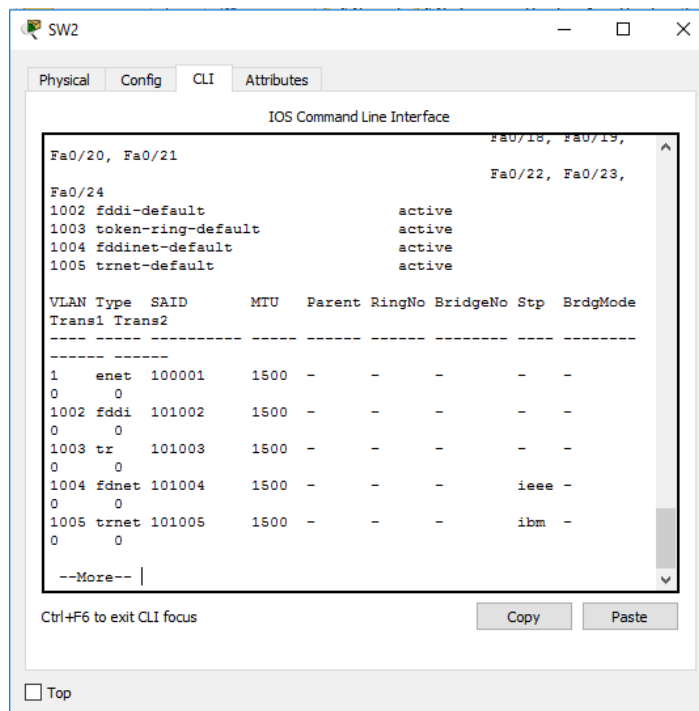
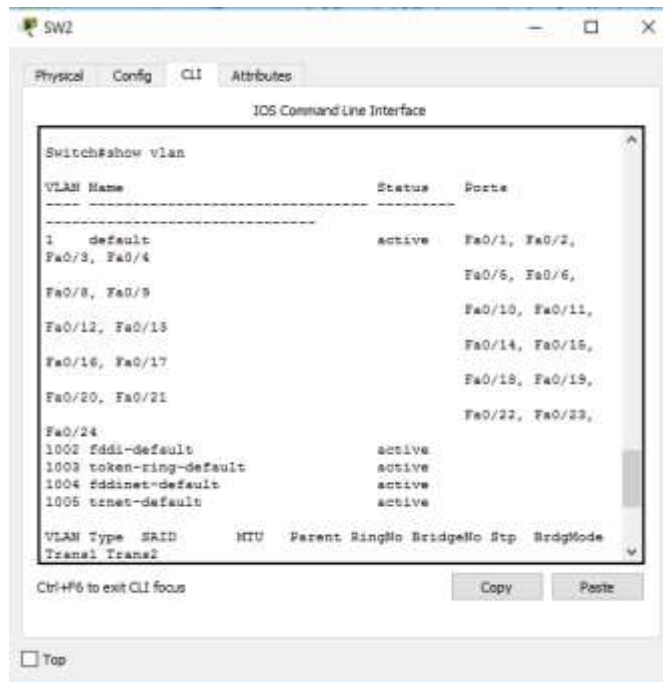


Explain : hasil dari ping di atas adalah “timed out” karena perbedaan network

## H. Membuat Konfigurasi VLAN Trunking

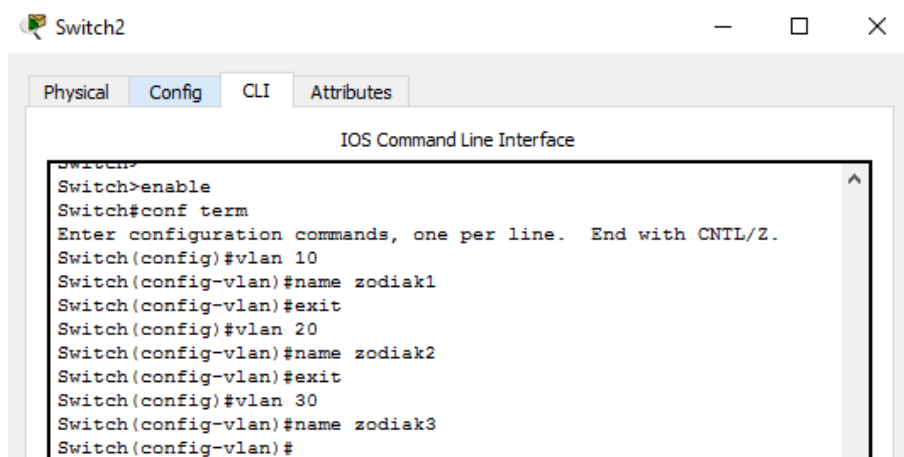


## I. SHOW VLAN

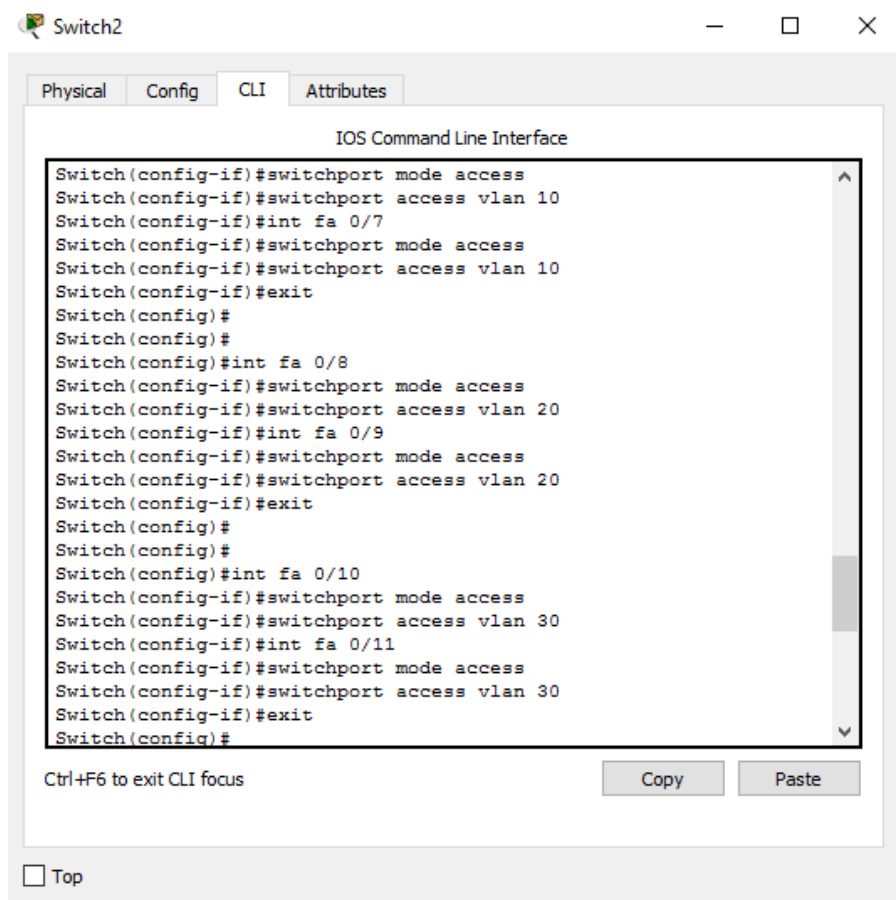


➤ Explain

## J. Membuat Konfigurasi Port Switch ke dalam VLAN zodiac



```
Switch2
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)#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)#
```



```
Switch2
Physical Config CLI Attributes
IOS Command Line Interface
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 10
Switch(config-if)#int fa 0/7
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 10
Switch(config-if)#exit
Switch(config)#
Switch(config)#
Switch(config)#int fa 0/8
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 20
Switch(config-if)#int fa 0/9
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 20
Switch(config-if)#exit
Switch(config)#
Switch(config)#
Switch(config)#int fa 0/10
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 30
Switch(config-if)#int fa 0/11
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 30
Switch(config-if)#exit
Switch(config)#
Switch(config)#
Switch(config)#int fa 0/12
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 10
Switch(config-if)#int fa 0/13
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 10
Switch(config-if)#exit
Switch(config)#
Switch(config)#
Switch(config)#int fa 0/14
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 20
Switch(config-if)#int fa 0/15
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 20
Switch(config-if)#exit
Switch(config)#
Switch(config)#
Switch(config)#int fa 0/16
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 30
Switch(config-if)#int fa 0/17
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 30
Switch(config-if)#exit
Switch(config)#
Switch(config)#
Switch(config)#int fa 0/18
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 10
Switch(config-if)#exit
Switch(config)#
```

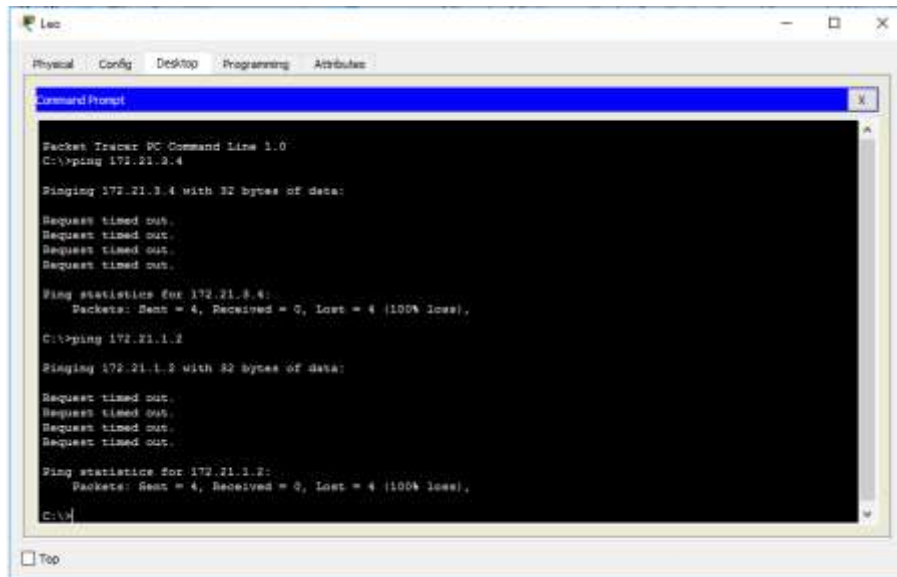
Ctrl+F6 to exit CLI focus

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## K. PING

### ➤ Ping Leo ke Aries



```
Packet Tracer PC Command Line 1.0
C:\>ping 172.21.1.4

Pinging 172.21.1.4 with 32 bytes of data:

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

Ping statistics for 172.21.1.4:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 172.21.1.2

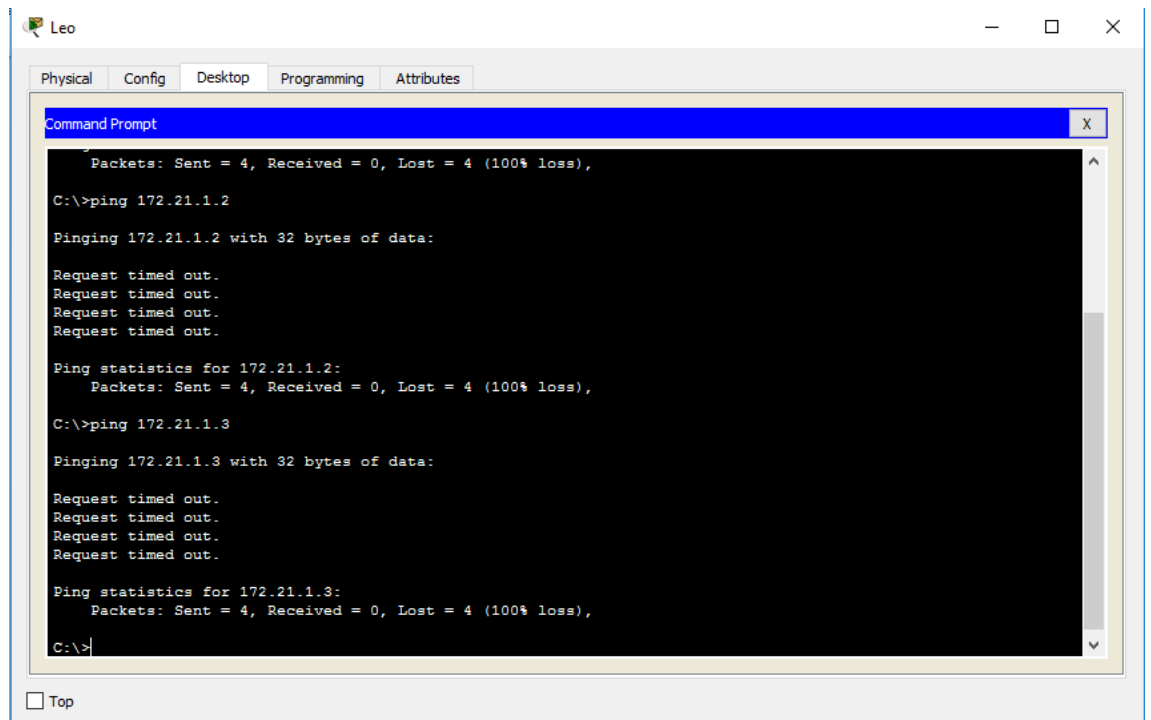
Pinging 172.21.1.2 with 32 bytes of data:

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:\>
```

### ➤ Ping Leo ke Aquarius



```

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:\>ping 172.21.1.3

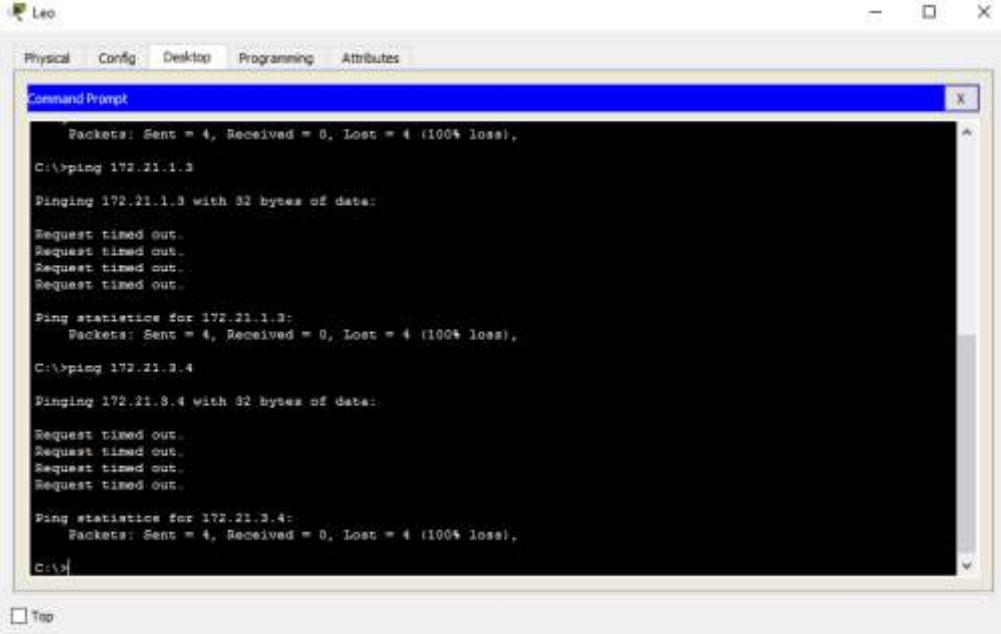
Pinging 172.21.1.3 with 32 bytes of data:

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

Ping statistics for 172.21.1.3:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>
```

➤ Ping Leo ke Pisces



```
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 172.21.1.3

Pinging 172.21.1.3 with 32 bytes of data:

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

Ping statistics for 172.21.1.3:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 172.21.3.4

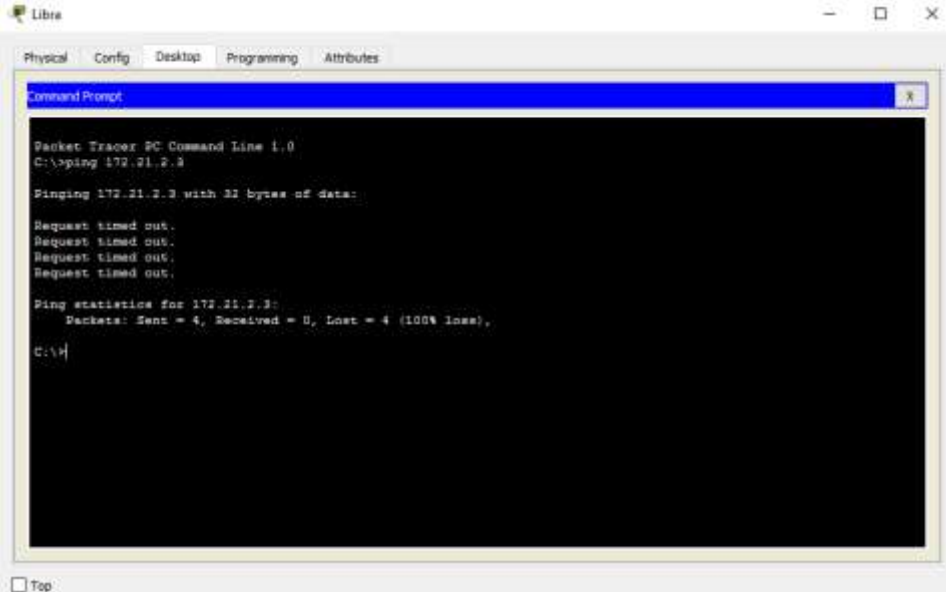
Pinging 172.21.3.4 with 32 bytes of data:

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 Libra ke 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:\>
```

➤ Ping Libra ke Leo

