

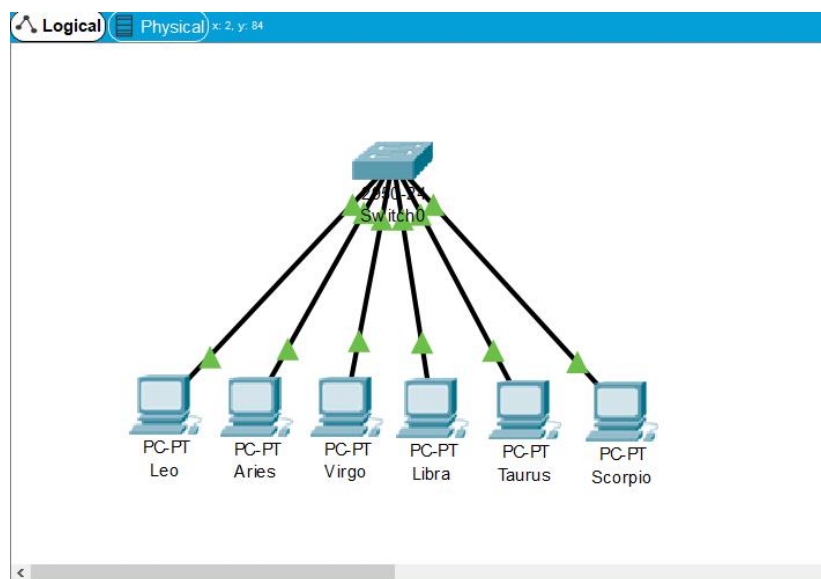
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NIM : L200180095
Kelas : C

JARINGAN KOMPUTER MODUL 4

Kegiatan Praktikum

1. Kegiatan 1. Topologi 1

- a) Pembuatan Topologi menggunakan IP Adrees 172.21.1.1 s/d 172.21.1.6



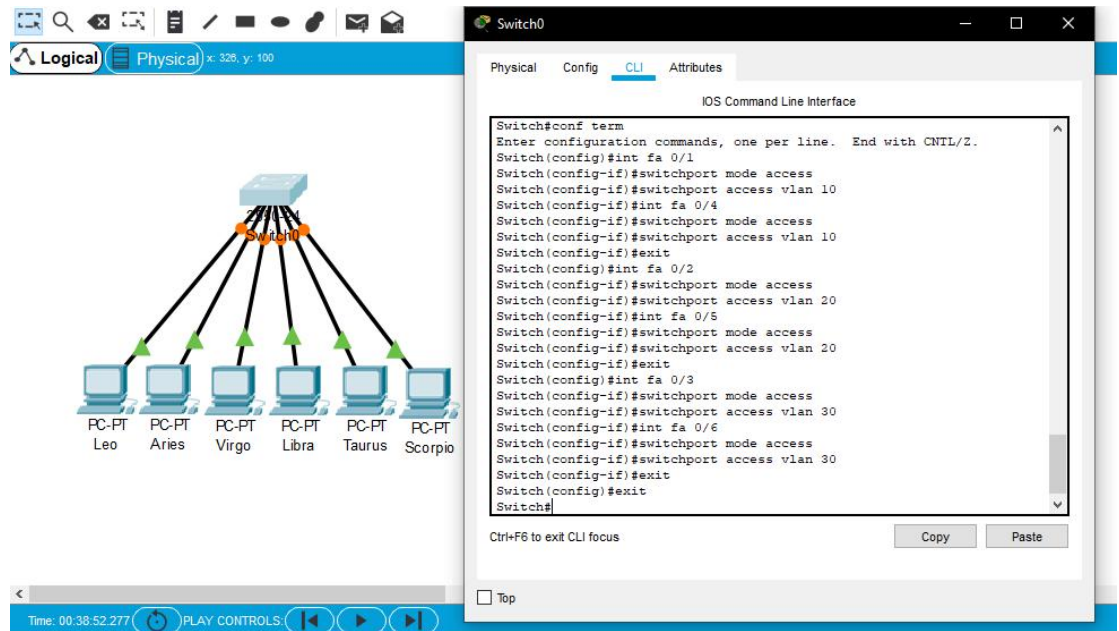
- b) Konfigurasi pada switch kemudian membuat 3 vlan dengan nama zodiak1, zodiak2, dan zodiak3.

The screenshot shows the same network topology diagram as before, but with a CLI window open for 'Switch0'. The CLI window has tabs for 'Physical', 'Config', 'CLI', and 'Attributes'. The 'CLI' tab is active, showing the 'IOS Command Line Interface'. The configuration commands entered are:

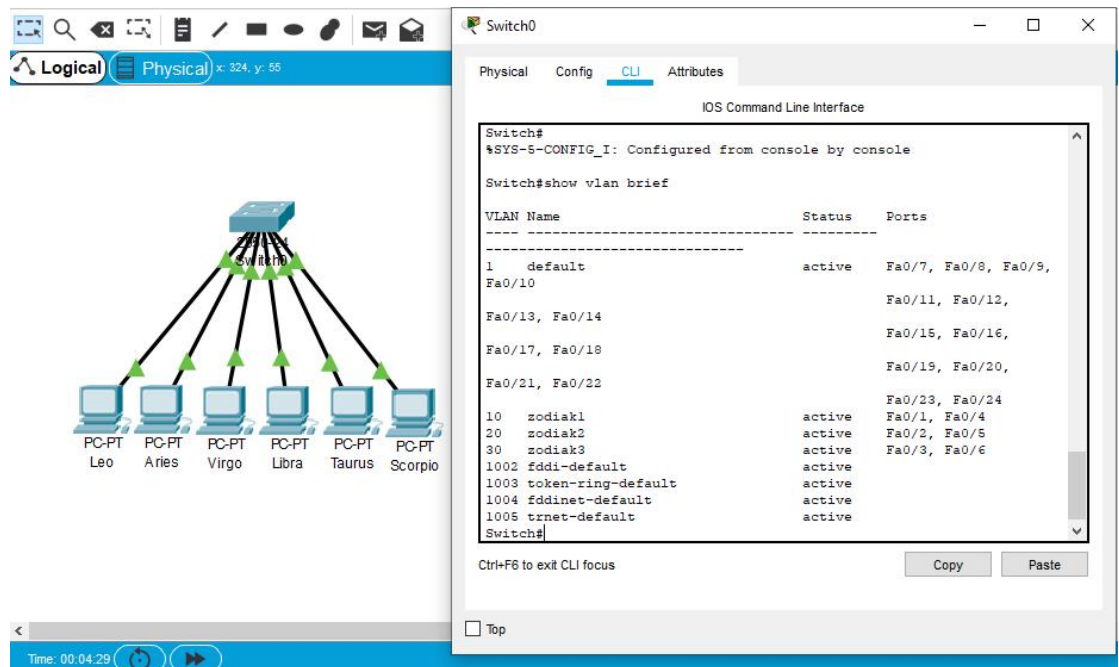
```
Switch>enable
Switch#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan 10
Switch(config-vlan)#name zodiak1
Switch(config-vlan)#exit
Switch(config)#vlan 20
Switch(config-vlan)#name zodiak2
Switch(config-vlan)#exit
Switch(config)#vlan 30
Switch(config-vlan)#name zodiak3
Switch(config-vlan)#exit
Switch(config)#exit
Switch#
```

The CLI window also shows status messages: '%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/5, changed state to up', '%LINK-5-CHANGED: Interface FastEthernet0/6, changed state to up', and '%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/6, changed state to up'. At the bottom of the CLI window, it says 'Ctrl+F6 to exit CLI focus'. There are 'Copy' and 'Paste' buttons. The bottom status bar shows 'Time: 00:38:52.277' and 'PLAY CONTROLS'.

- c) Konfigurasi port-port switch ke dalam VLAN dengan anggota sbb:
- Zodiak1 = Leo dan Libra
 - Zodiak2 = Aries dan Taurus
 - Zodiak3 = Virgo dan Scorpio

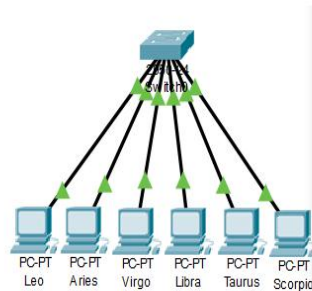


- d) Melihat konfigurasi VLAN yang telah dibuat.



Tugas 6A:

i. Tampilan Informasi VLAN 10



```
Switch#show vlan id 10
active
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
```

Switch#

Ctrl+F6 to exit CLI focus

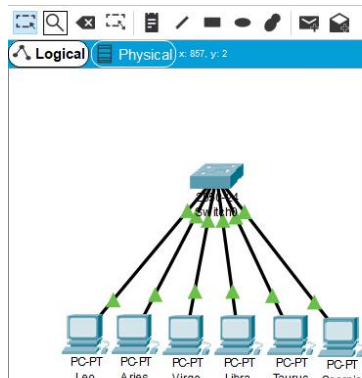
Copy Paste

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ii. Isi Tabel :

No.	Variabel	Nilai
1.	Nomer VLAN	10
2.	Nama VLAN	Zodiak1
3.	Port	Fa 0/1, Fa 0/4
4.	Status	Active

iii. Tampilan Informasi VLAN 20



```
Switch0
Physical Config CLI Attributes
IOS Command Line Interface
10  zodiak1                active    Fa0/1, Fa0/4

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

Switch#
```

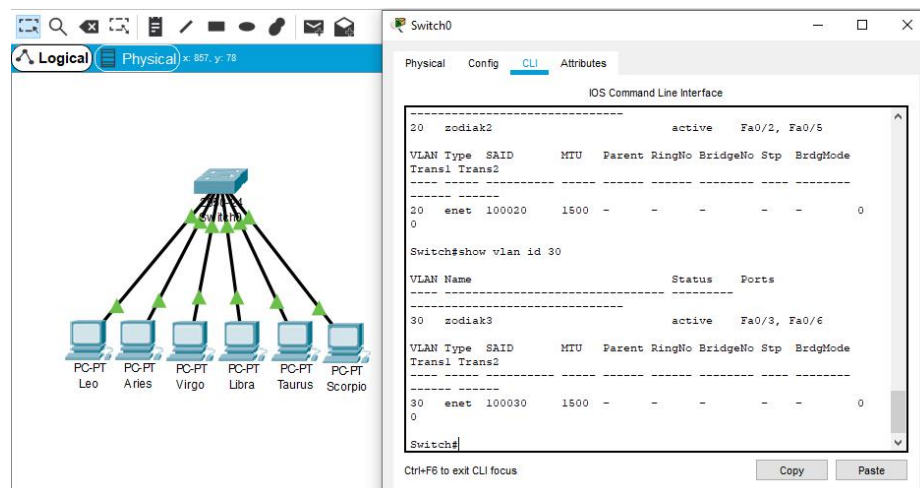
Ctrl+F6 to exit CLI focus

Copy Paste

iv. Isi Tabel :

No.	Variabel	Nilai
1.	Nomer VLAN	20
2.	Nama VLAN	Zodiak2
3.	Port	Fa 0/2, Fa 0/5
4.	Status	Active

v. Tampilan Informasi VLAN 30



vi. Isi Tabel :

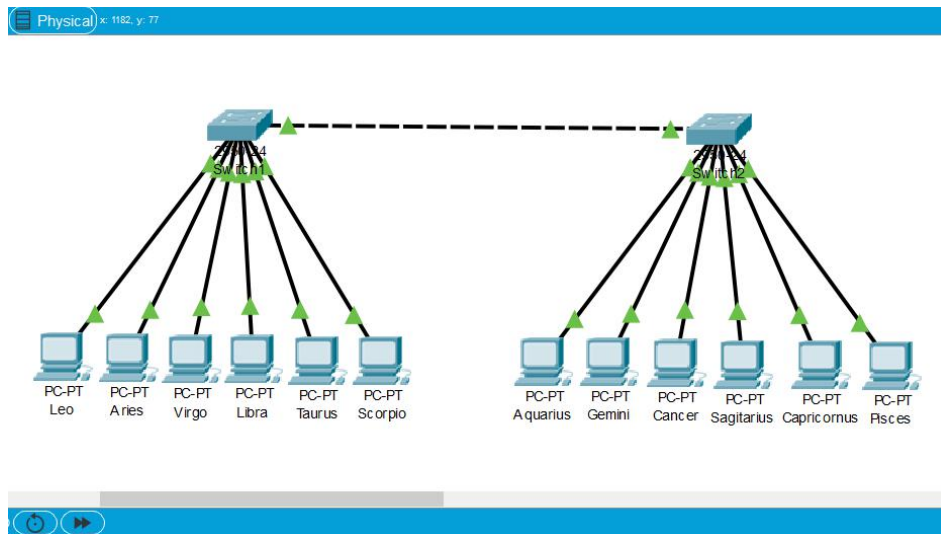
No.	Variabel	Nilai
1.	Nomer VLAN	30
2.	Nama VLAN	Zodiak3
3.	Port	Fa 0/3, Fa 0/6
4.	Status	Active

Tugas 6B:

- Dalam VLAN ID, status VLAN menjadi active.
- Identitas VLAN (1,2,3) sesuai dari pembuatan nama VLAN yaitu zodiak1, zodiak2, dan zodiak3.
- Port yang terdaftar dalam VLAN sesuai dengan konfigurasi yang telah dilakukan sebelumnya.

2. Kegiatan 2. Topologi 2

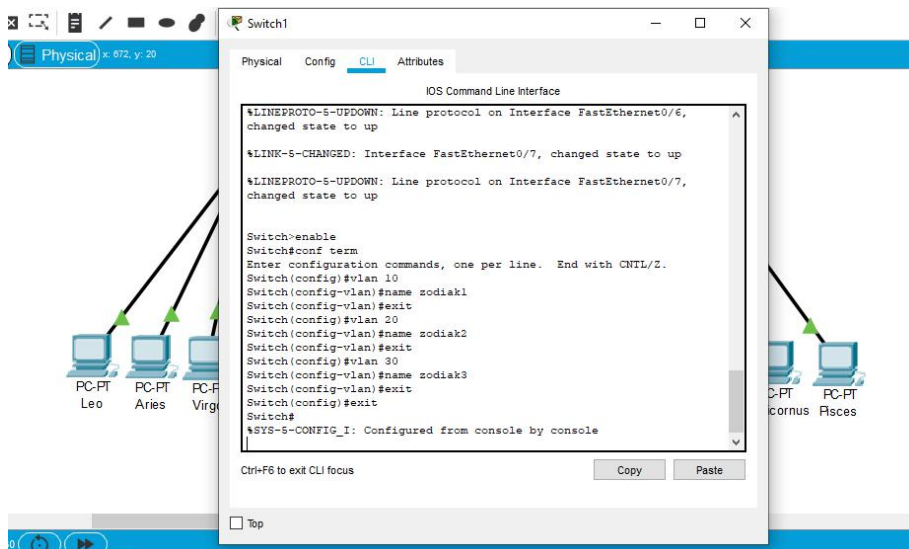
a) Pembuatan Topologi dengan penggantian IP address



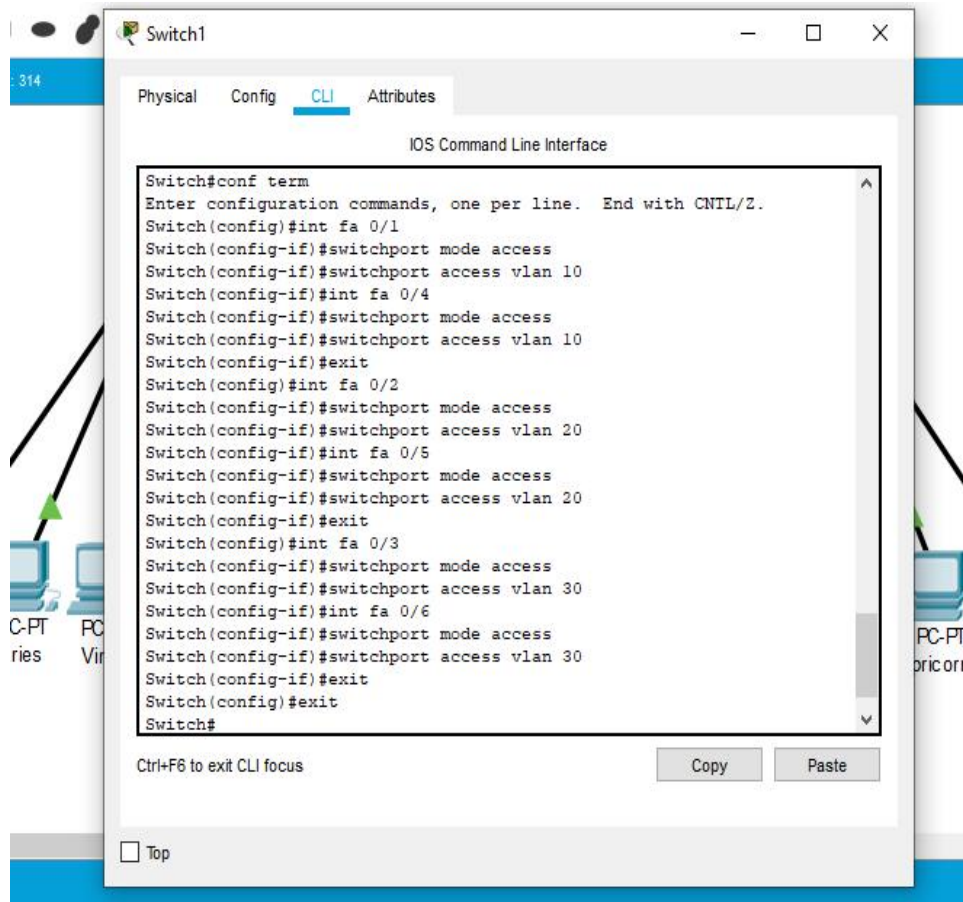
IP Address sbb :

❖ Leo	= 172.21.1.1
❖ Aries	= 172.21.1.2
❖ Virgo	= 172.21.2.1
❖ Libra	= 172.21.2.2
❖ Taurus	= 172.21.3.1
❖ Scorpio	= 172.21.3.2
❖ Aquarius	= 172.21.1.3
❖ Gemini	= 172.21.1.4
❖ Cancer	= 172.21.2.3
❖ Sagittarius	= 172.21.2.4
❖ Capricornus	= 172.21.3.3
❖ Pisces	= 172.21.2.4

b) Konfigurasi pada switch kemudian membuat 3 vlan dengan nama zodiak1, zodiak2, dan zodiak3.



- c) Konfigurasi port-port switch ke dalam VLAN dengan anggota sbb:
- Zodiak1 = Leo dan Libra
 - Zodiak2 = Aries dan Taurus
 - Zodiak3 = Virgo dan Scorpio



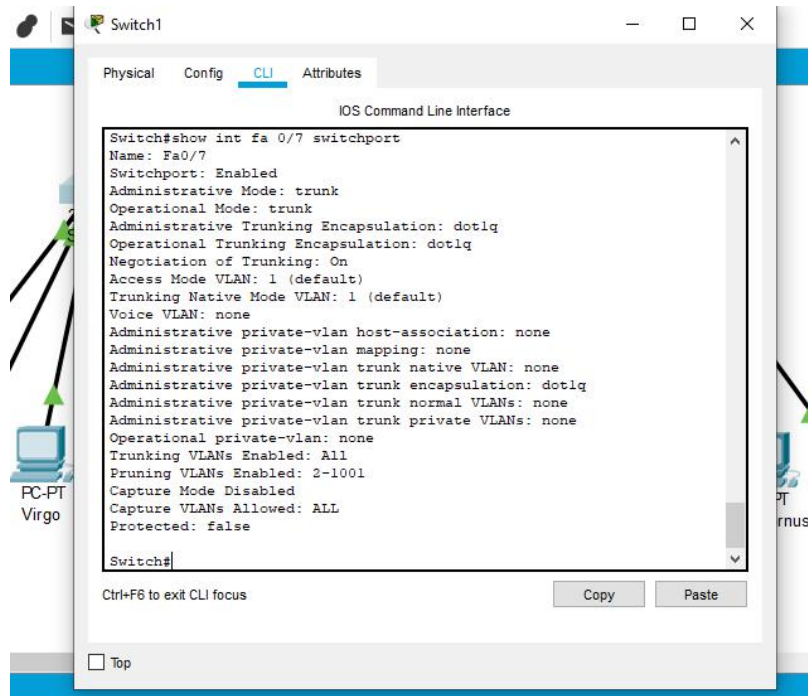
- d) Konfigurasi VLAN Trunking pada Switch1.

```
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
```


e) Melihat konfigurasi trunking yang telah dibuat.



```
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#
```

```
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      0
10   enet     100010   1500    -      -      -      -      -      0      0
20   enet     100020   1500    -      -      -      -      -      0      0
30   enet     100030   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
-----

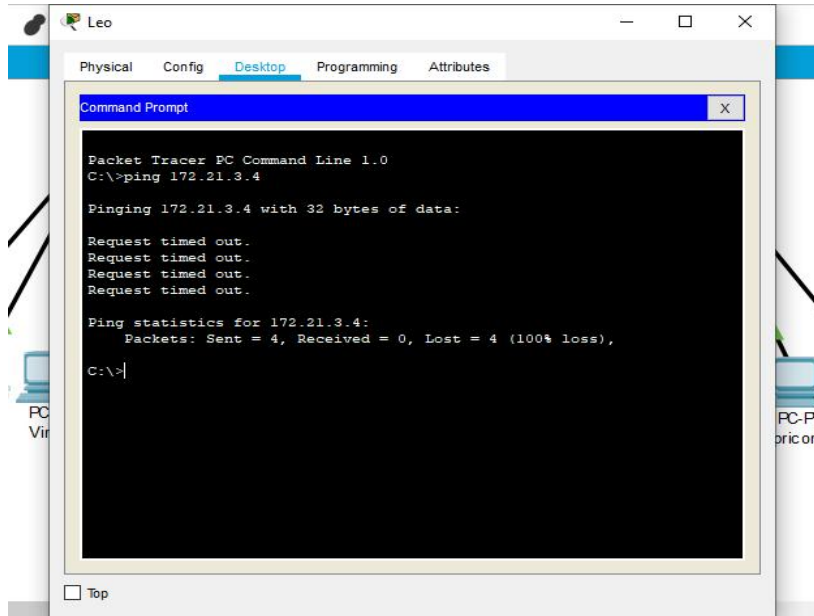
Remote SPAN VLANs
-----

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

Tugas 7A:

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.

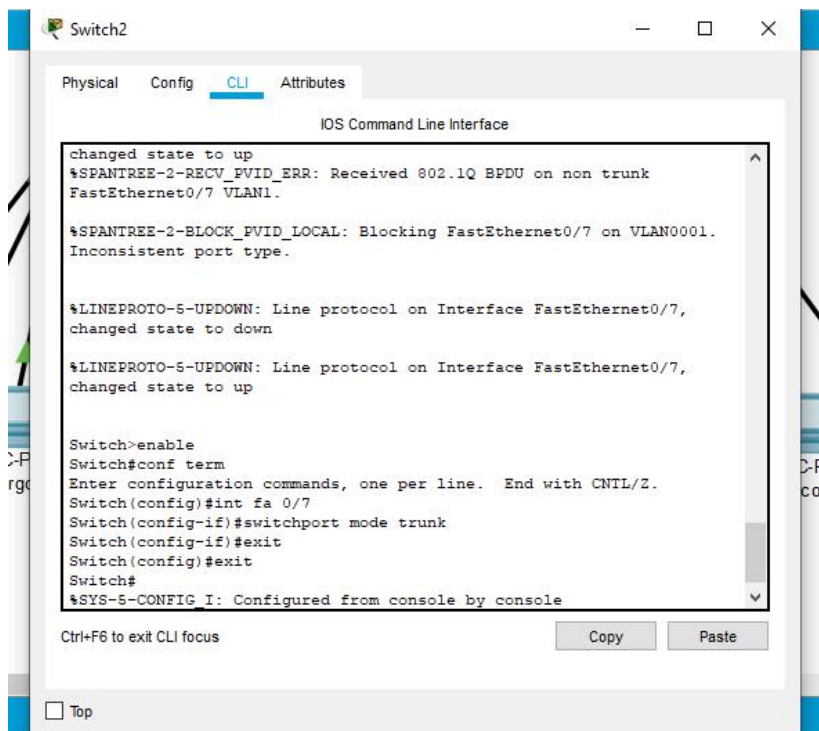
- f) Melakukan ping dari PC Leo ke PC Pisces.



Tugas 8A :

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

- g) Konfigurasi VLAN Trunking pada Switch2.



h) Melihat konfigurasi VLAN pada Switch2.

```
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	Transl	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	Transl	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


```
Remote SPAN VLANs
```

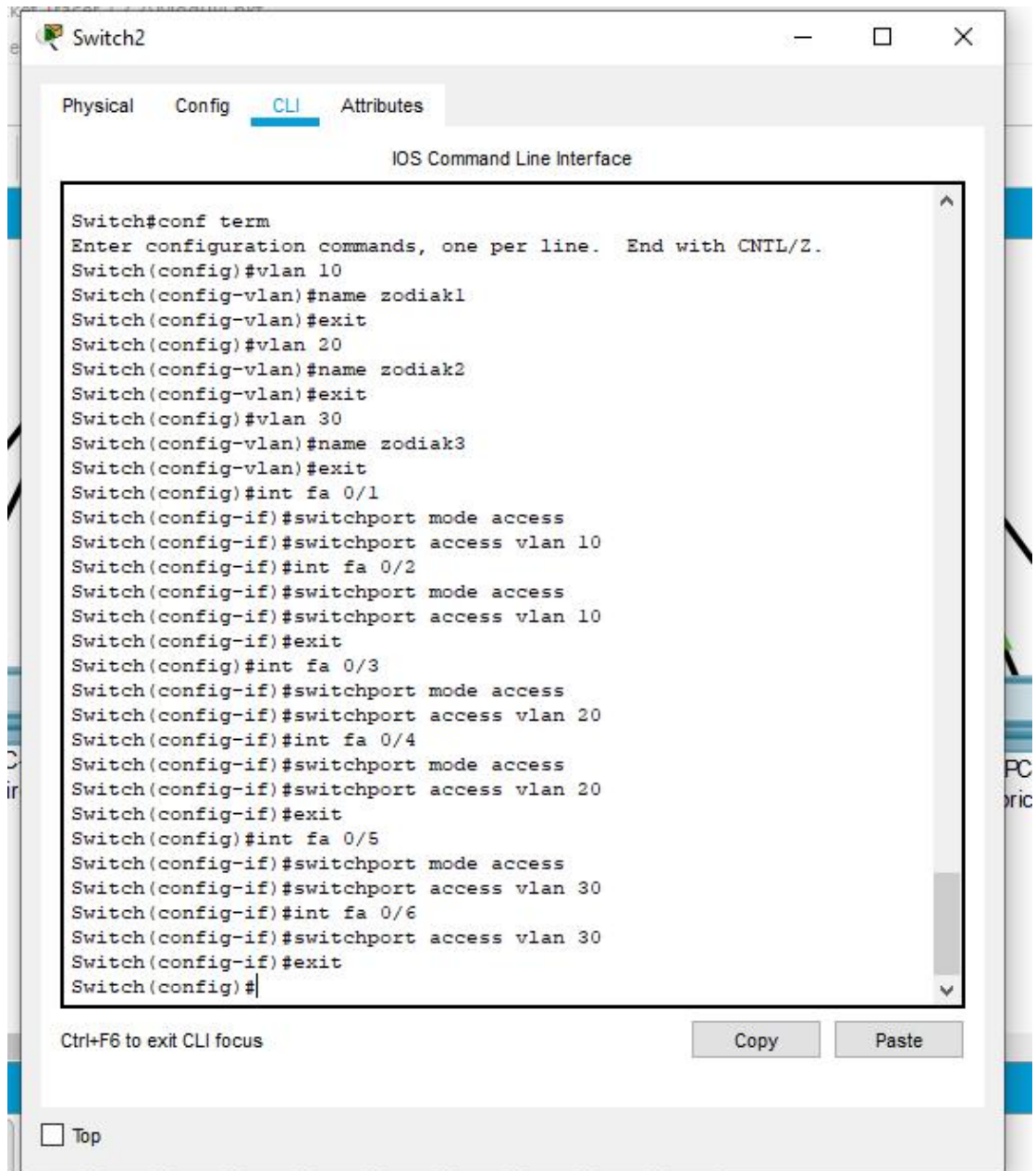
Primary	Secondary	Type	Ports

```
Switch#
```

Tugas 10A :

Pada langkah ini port - port fastethernet belum terkonfigurasi kedalam VLAN, bahkan VLANnya belum dibuat.

- i) Konfigurasi port-port switch ke dalam VLAN dengan anggota sbb:
- Zodiak1 = Aquarius dan Gemini
 - Zodiak2 = Cancer dan Sagitarius
 - Zodiak3 = Capricornus dan Pisces



j) Melakukan ping dari :

i. Leo ke Aries

```
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:\>
```

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ii. Leo ke 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=50ms TTL=128
Reply from 172.21.1.3: bytes=32 time=3ms TTL=128
Reply from 172.21.1.3: bytes=32 time=3ms TTL=128
Reply from 172.21.1.3: bytes=32 time=5ms 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 = 3ms, Maximum = 50ms, Average = 15ms

C:\>
```

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iii. Leo ke Pisces

```
C:\>ping 172.21.3.4

Pinging 172.21.3.4 with 32 bytes of data:

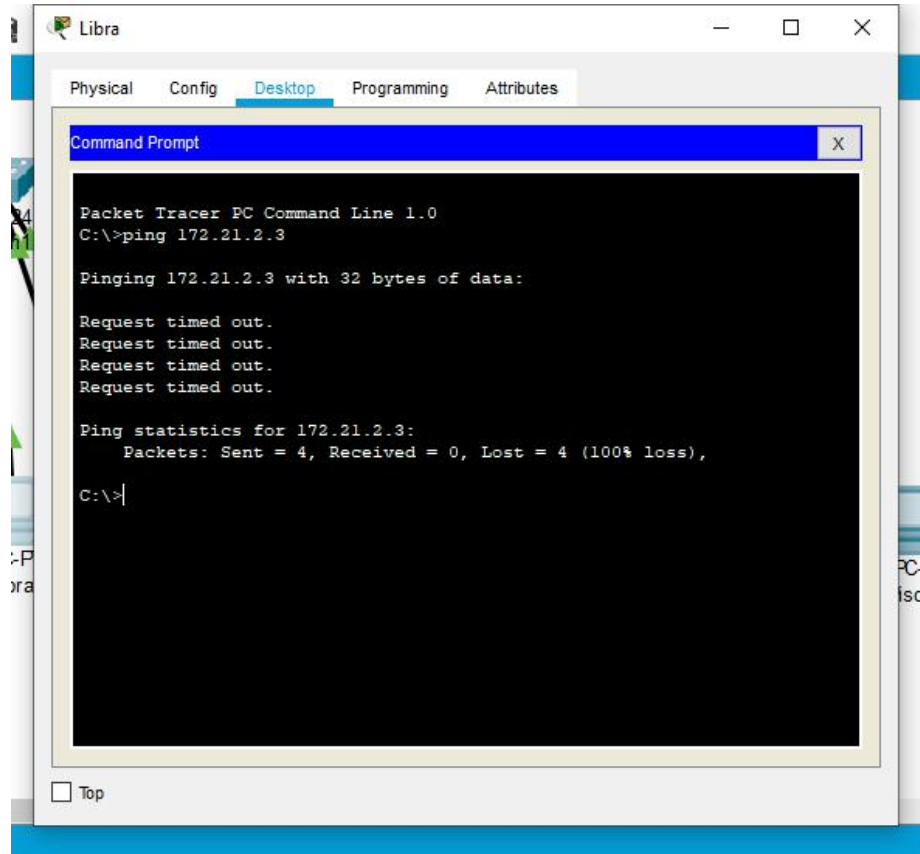
Request timed out.
Request timed out.
Request timed out.
Request timed out.

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

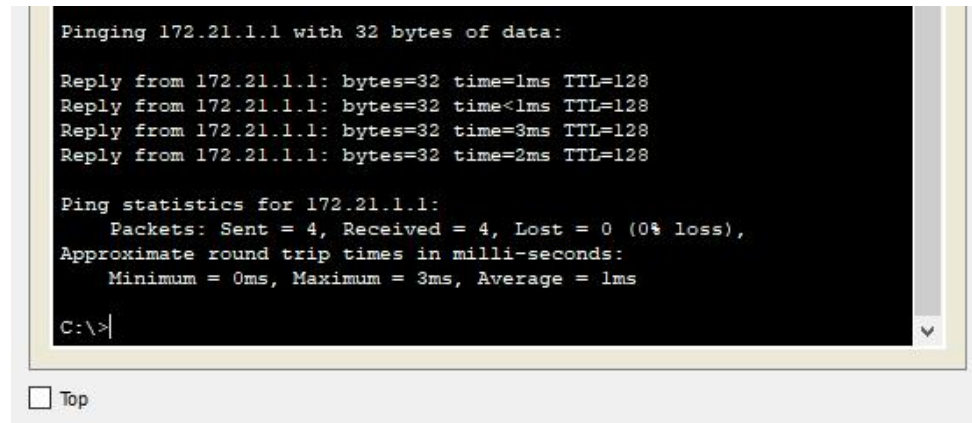
C:\>
```

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iv. Libra ke Cancer



v. Libra ke Leo



Tugas 12A :

Hasil dari percobaan diatas, dapat disimpulkan apabila PC berada pada VLAN yang sama, maka akan menghasilkan status Reply pada saat pengujian ping, seperti contohnya Leo ke Aquarius dan Libra ke Leo. Akan tetapi, jika berada pada VLAN yang berbeda akan menghasilkan status RTO seperti contoh pada Leo ke Aries, Leo ke Pisces, dan Libra ke Cancer.