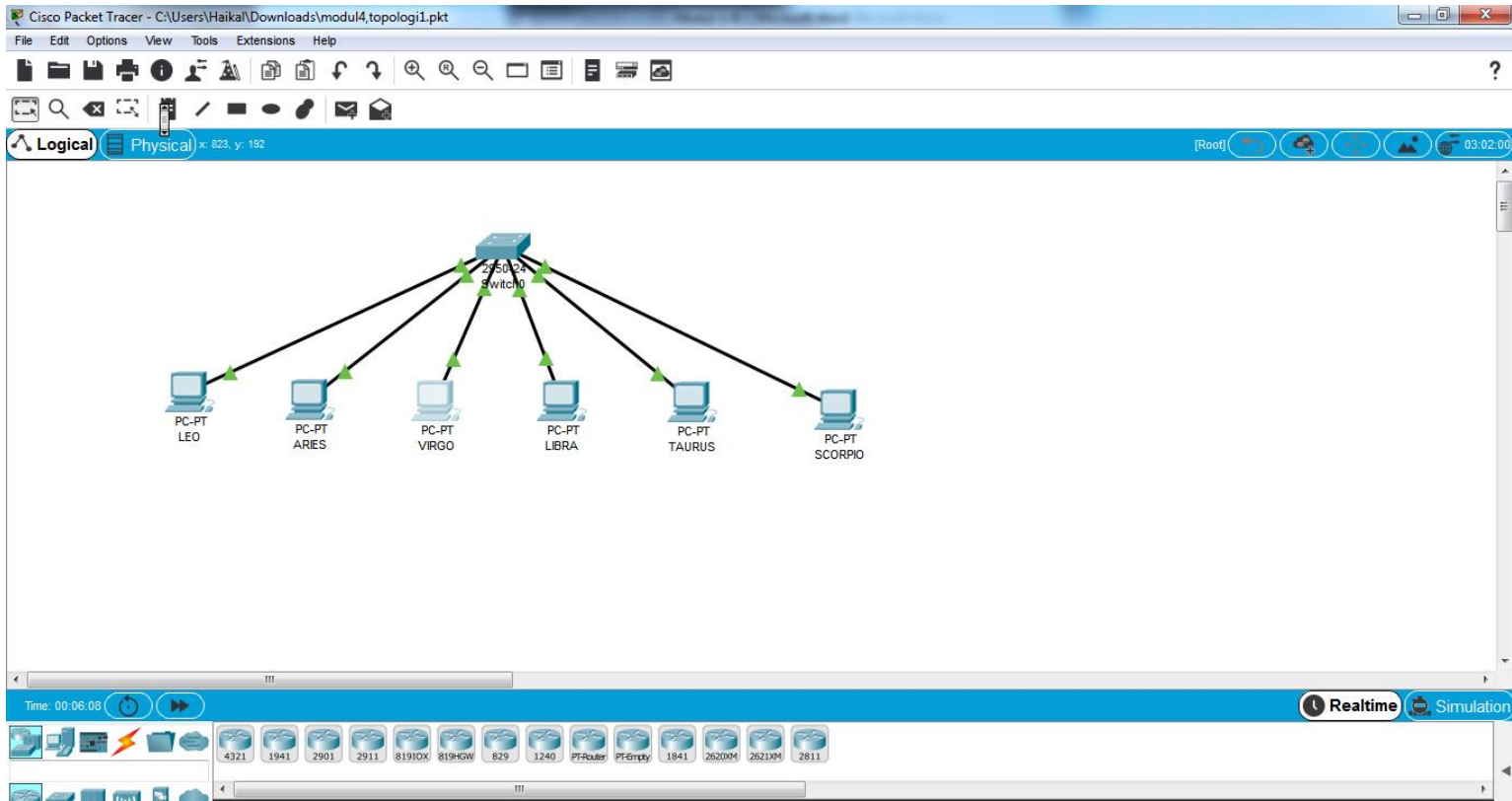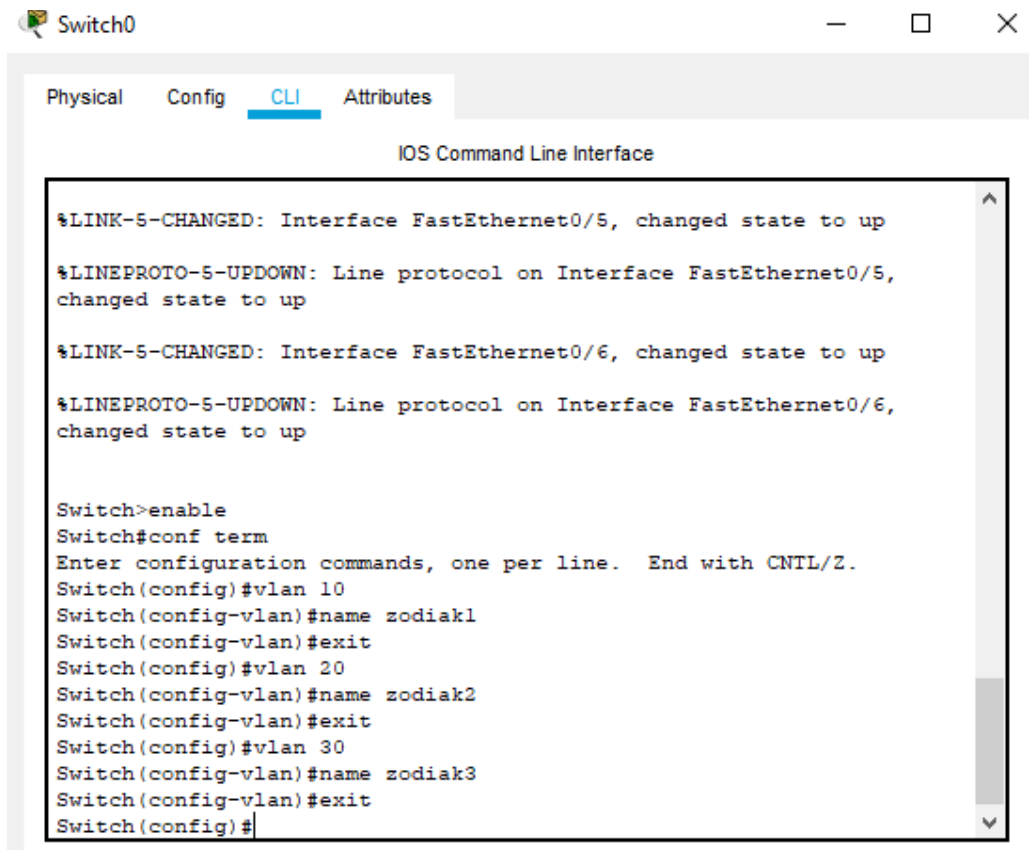**Nama : Fikri Zaki Haiqal**
NIM   : L200170079
Kelas : B
Modul: IV

Kegiatan 1

1. Desain topologi, penamaan, dan penyetingan IP address

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

Switch0   —   □   ✕

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
%LINK-5-CHANGED: Interface FastEthernet0/5, changed state to up

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

%LINK-5-CHANGED: Interface FastEthernet0/6, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/6,
changed state to up


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)#
```

3. Konfigurasi port-port switch kedalam 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
Transl 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
Transl 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
Transl Trans2
---- ----- ---------- ----- ------ ------ -------- ---- --------
------ ------
30   enet  100030     1500  -      -      -        -    -          0
0
```
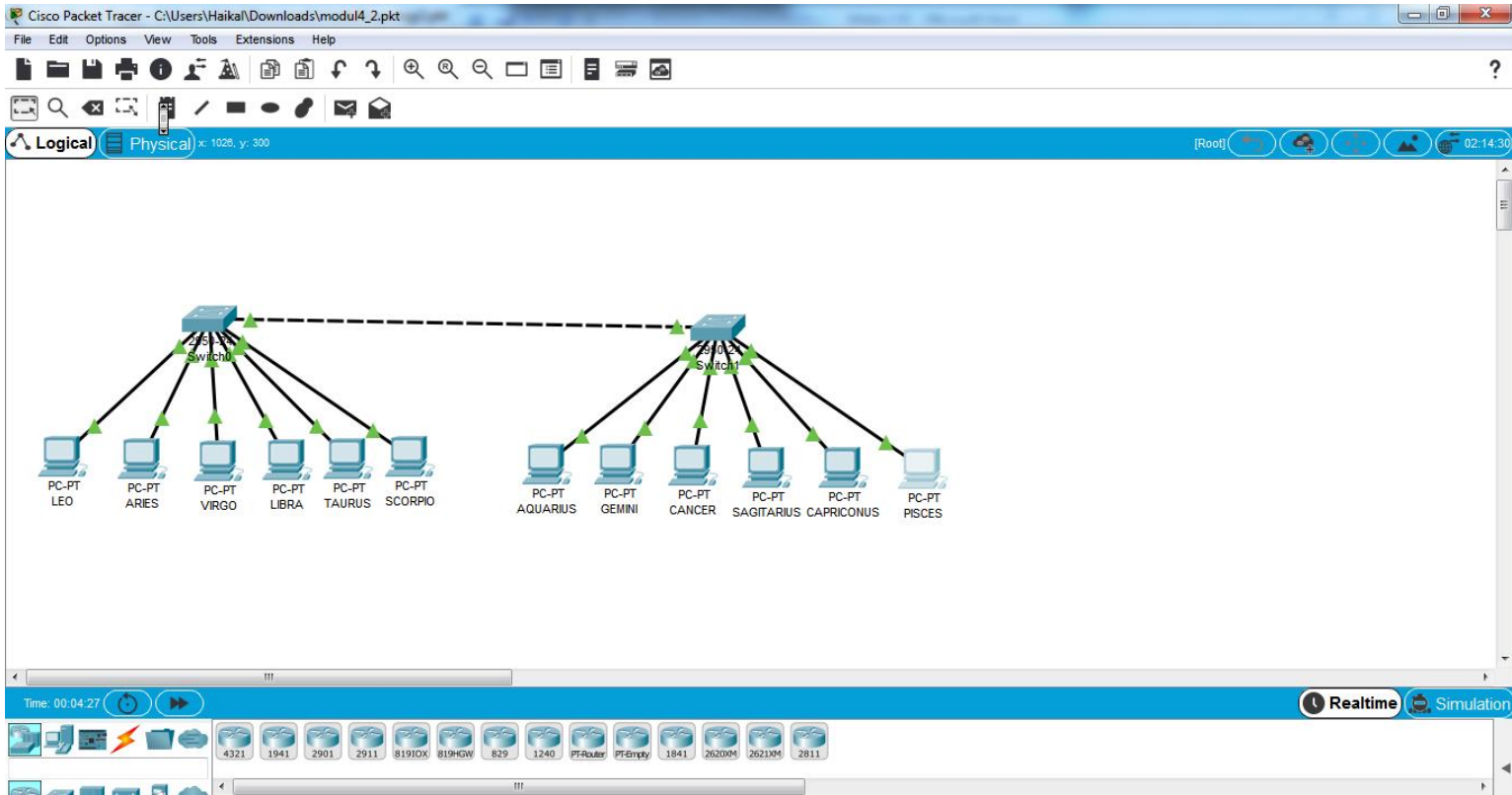
5. Table informasi tentang vlan

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

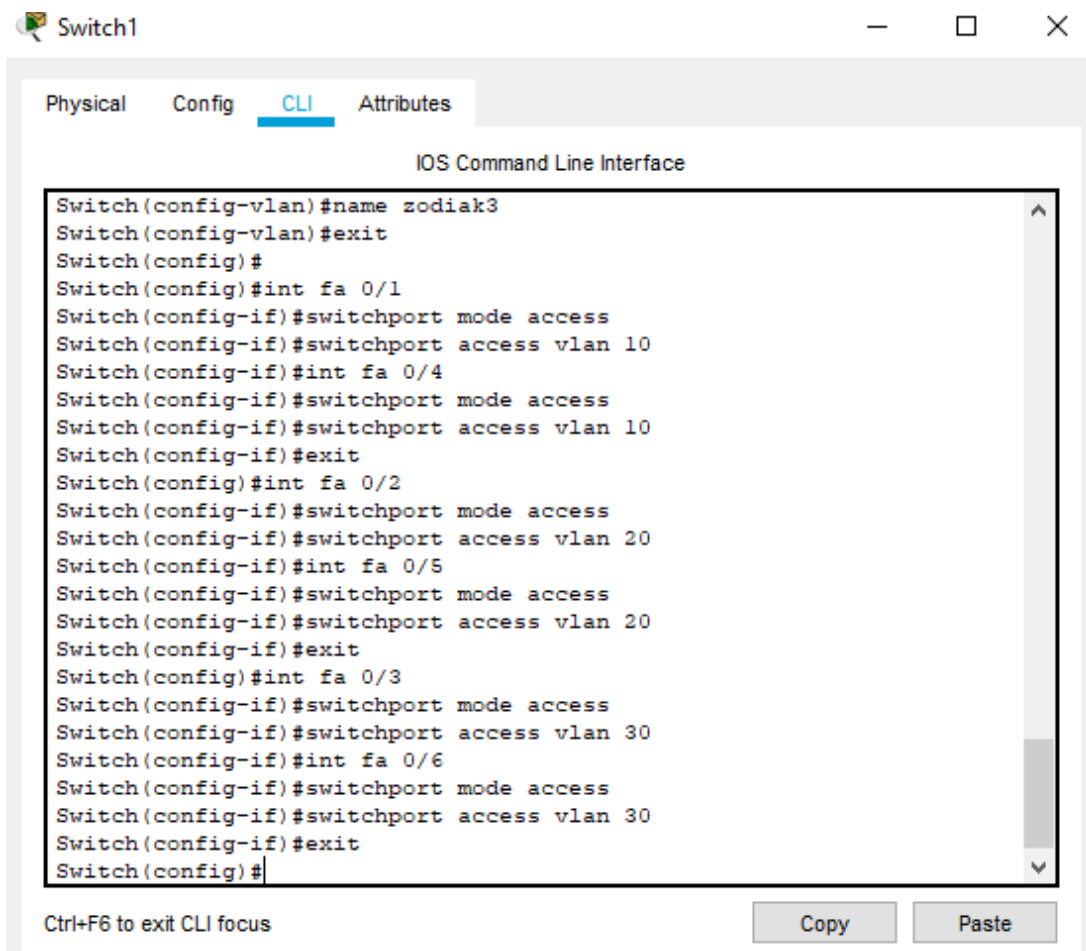1. Membuat topologi, menamai, dan menyeting IP address

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

Switch1   — ☐ ✕

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
%LINK-5-CHANGED: Interface FastEthernet0/6, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/6,
changed state to up

%LINK-5-CHANGED: Interface FastEthernet0/7, changed state to up

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


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)#
```

Ctrl+F6 to exit CLI focus   Copy   Paste

☐ Top

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

Switch1 — □ ×

Physical   Config   CLI   Attributes

IOS Command Line Interface

```
Switch(config-vlan)#name zodiak3
Switch(config-vlan)#exit
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 0/4
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)#
```
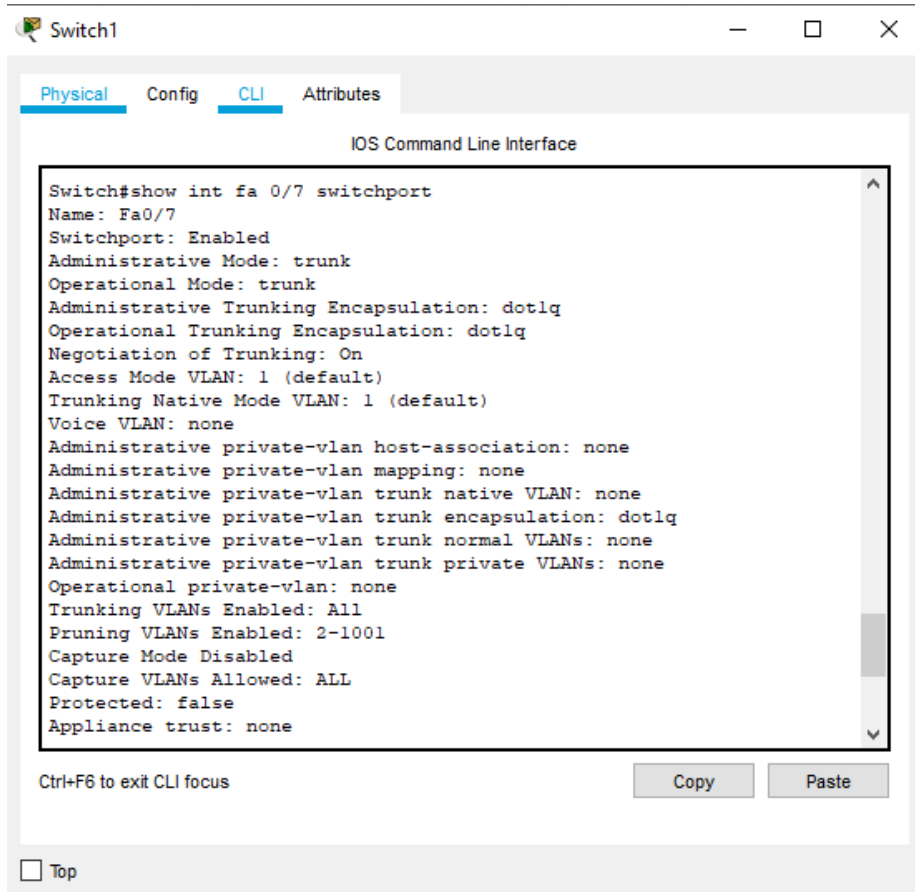
Ctrl+F6 to exit CLI focus   Copy   Paste

4. Konfigurasi VLAN trunking pada switch 1
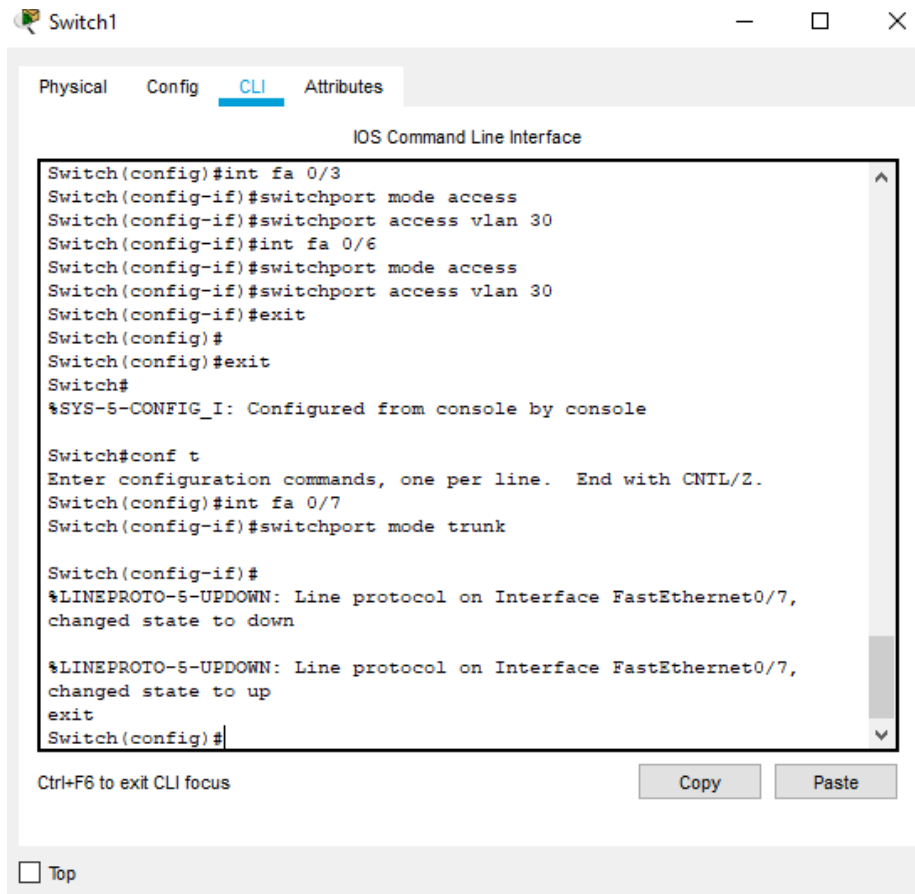
5. Melihat hasil konfigurasi trunking pada switch 1

Switch1   —   □   ✕

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

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
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#
```
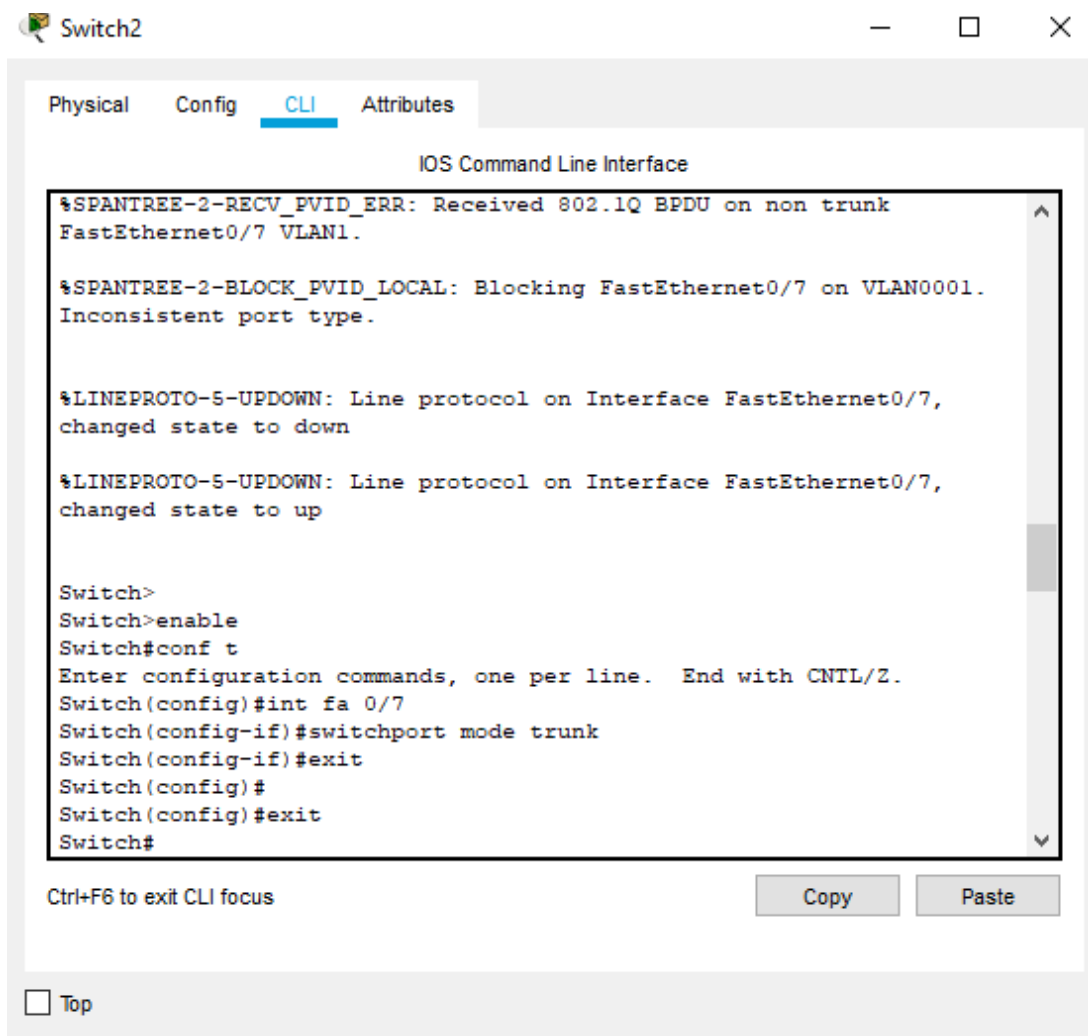
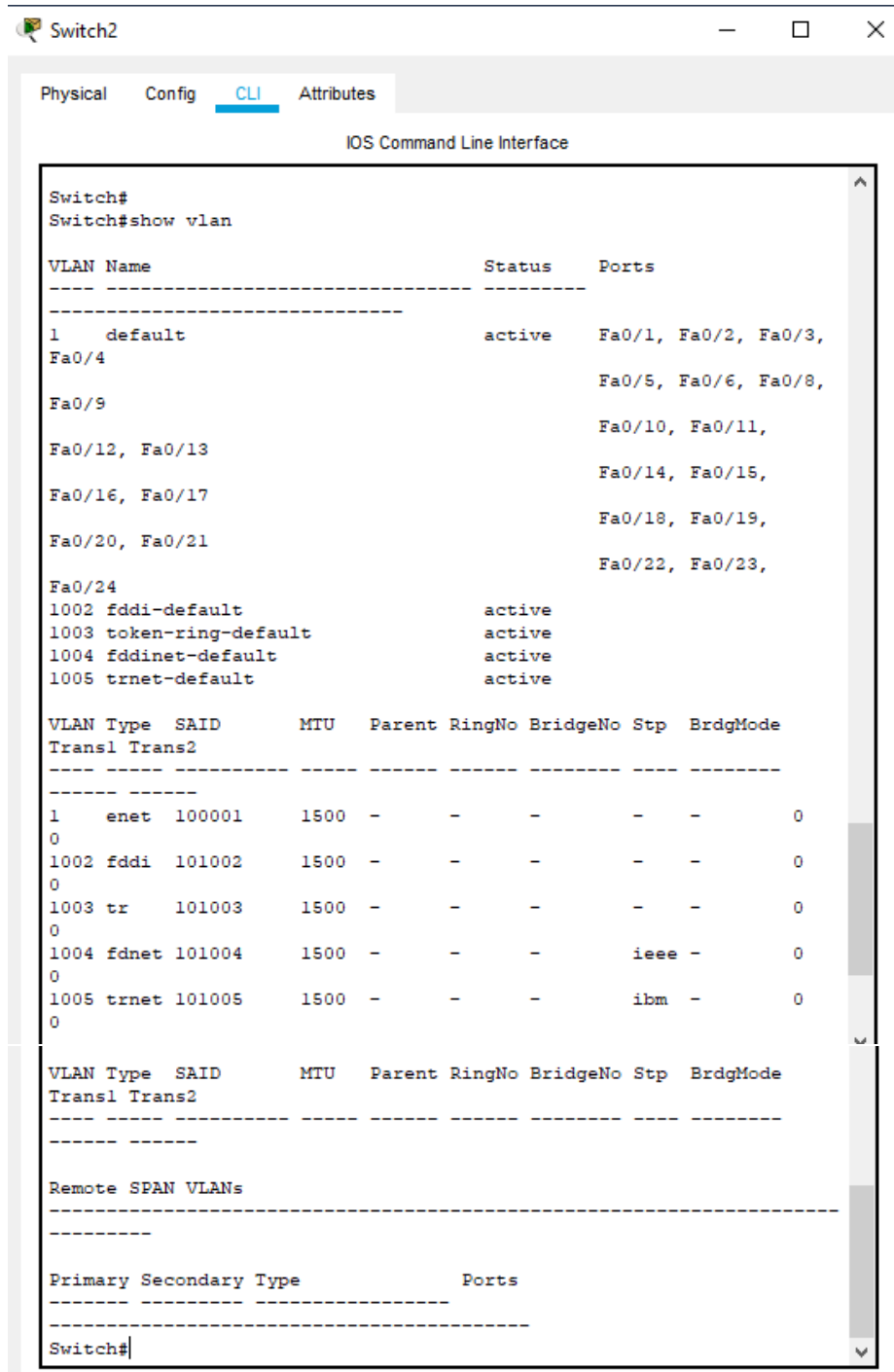Ctrl+F6 to exit CLI focus   Copy   Paste

6. Uji coba ping antara PC leo dengan PC pisces
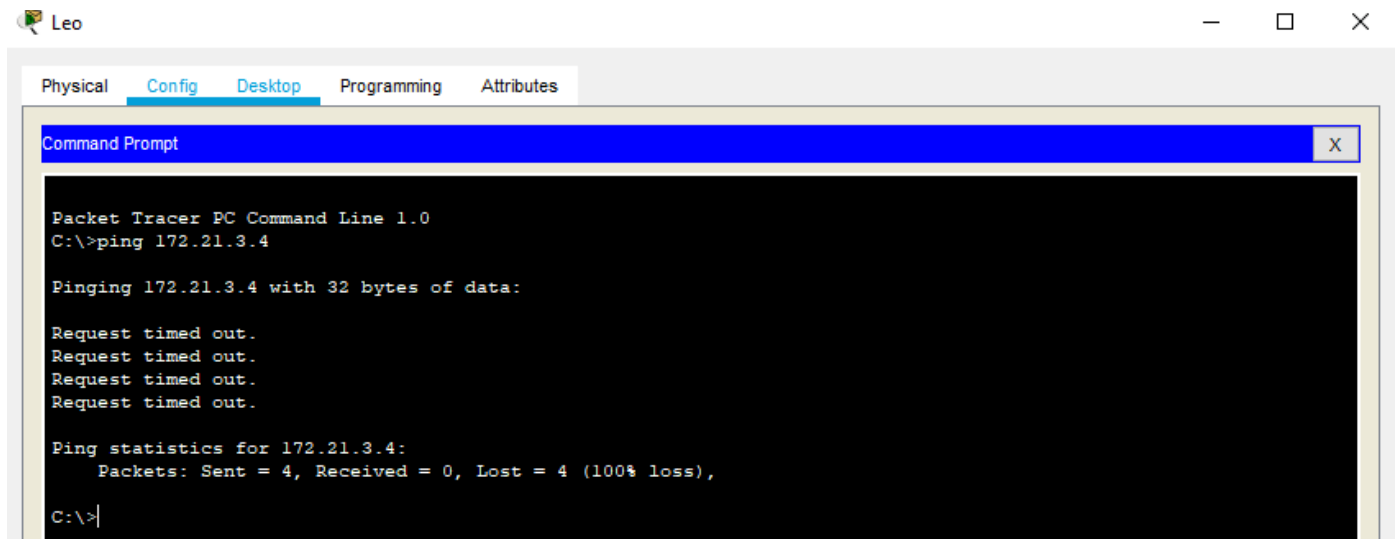

```
Packet Tracer PC Command Line 1.0
C:\>ping 172.21.3.4

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:\>
```

7. Konfigurasi VLAN trunking pada switch 2


```
%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#
```

8. 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
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
---- ----- --------- ----- ------ ------ -------- ---- --------
------ ------

Remote SPAN VLANs
-----------------------------------------------------------------
---------

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

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

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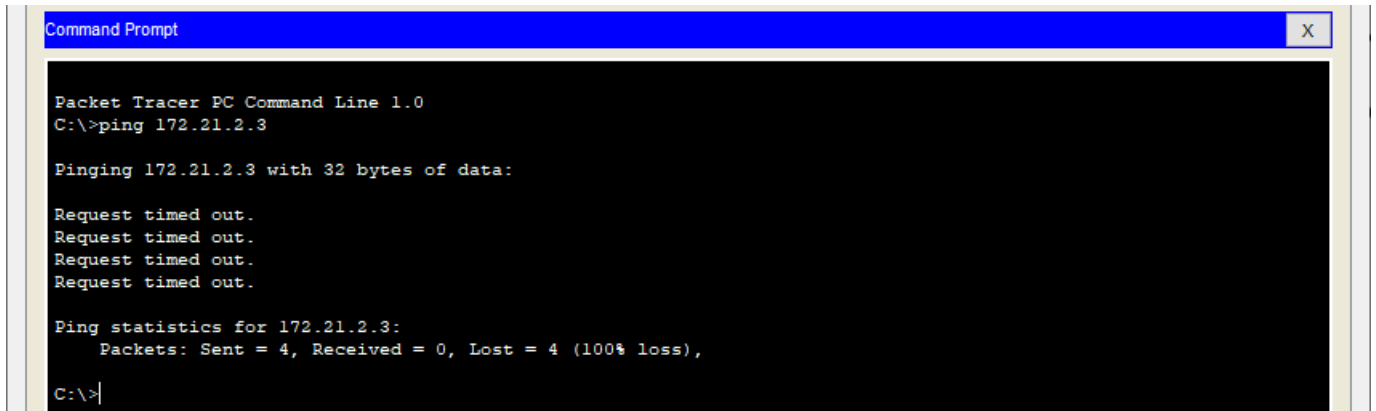
```
C:\>ping 172.21.3.4

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

```
Command Prompt                                                          X

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:\>
```
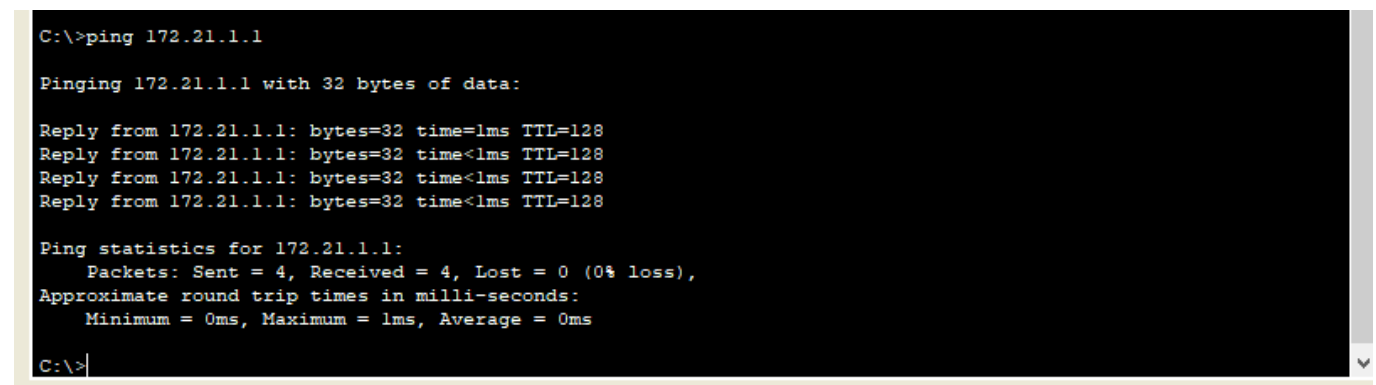
➢ PC libra ke PC leo

```
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:\>
```