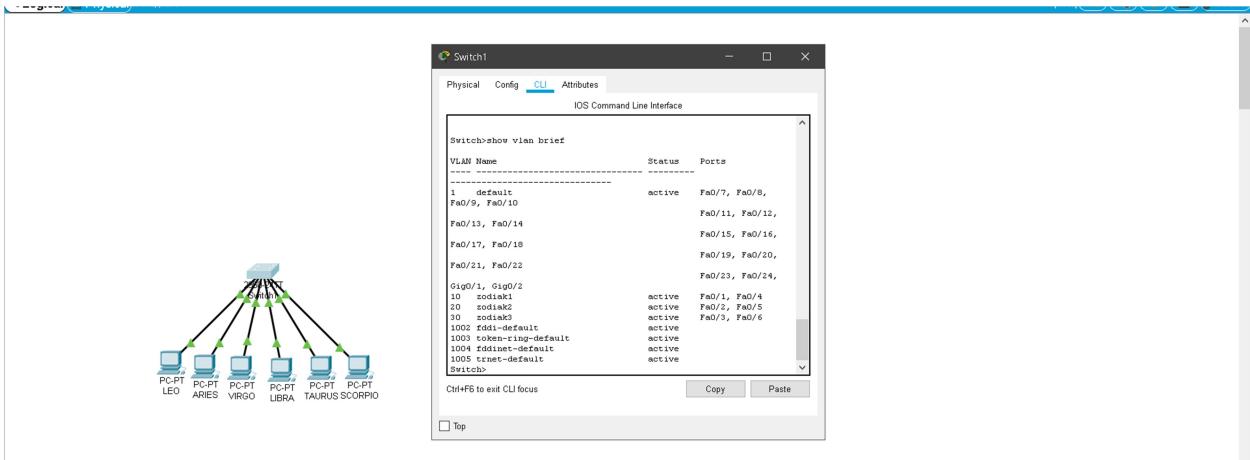


Nama

NIM

Latihan

## 1. Topologi 1



## Keterangan jaringan

The screenshot shows a terminal window displaying detailed VLAN configuration output from the 'show vlan' command.

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

Switch>show vlan brief
VLAN Name          Status     Ports
---- -----
1  default         active    Fa0/7, Fa0/8, Fa0/9, Fa0/10
                   active    Fa0/11, Fa0/12, Fa0/13, Fa0/14
                   active    Fa0/15, Fa0/16, Fa0/17, Fa0/18
                   active    Fa0/19, Fa0/20, Fa0/21, Fa0/22
                   active    Fa0/23, Fa0/24, Gig0/1, Gig0/2
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>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 1000010    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 1000020    1500 - - - - - - 0 0

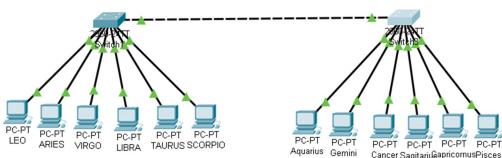
Switch>show vlan id 30
VLAN Name          Status     Ports
---- -----
30  zodiak3        active    Fa0/3, Fa0/6

VLAN Type SAID      MTU Parent RingNo BridgeNo Stp BrdgMode Trans1 Trans2
---- -----
30  enet 1000030    1500 - - - - - - 0 0

Switch>
```

At the bottom of the terminal window, there is a status bar showing network performance metrics: Download: ... MB/s, Upload: ... MB/s, and a timestamp: 12:17.

## 2. Topologi 2



Proses penamaan dan memasukkan pada vlan

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

Switch# 
Physical Config CLI Attributes

Switch#enable
Switch#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#interface FastEthernet0/1
Switch(config-if)#exit
Switch(config)#interface FastEthernet0/2
Switch(config-if)#exit
Switch(config)#interface FastEthernet0/3
Switch(config-if)#exit
Switch(config)#interface FastEthernet0/4
Switch(config-if)#exit
Switch(config)#interface FastEthernet0/5
Switch(config-if)#exit
Switch(config)#interface FastEthernet0/6
Switch(config-if)#exit
Switch(config)#exit
Switch#show vian brief
Switch#show vian brief

% Access VLAN does not exist. Creating vlan 40
% Access VLAN does not exist. Creating vlan 10
% Access VLAN does not exist. Creating vlan 10
Switch(config-if)#exit
Switch(config)#interface FastEthernet 0/1
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 40
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 mode access
Switch(config-if)#switchport access vlan 10
Switch(config-if)#exit
Switch(config)#interface FastEthernet 0/2
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 20
% Access VLAN does not exist. Creating vlan 20
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-if)#switchport access vlan 20
Switch(config-if)#exit
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 30
% Access VLAN does not exist. Creating vlan 30
Switch(config-if)#switchport access vlan 30
Switch(config-if)#interface FastEthernet 0/6
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 30
Switch(config-if)#exit
Switch(config)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console
Switch#show vian brief

Ctrl+F6 to exit CLI focus
```

## Proses trunking

Switch3 Physical Config **CLI** Attributes

```
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan zodiac4
^
% Invalid input detected at '^' marker.

Switch(config)#vlan 10
Switch(config-vlan)#name zodiac4
Switch(config-vlan)#exit
Switch(config)#vlan 30
Switch(config-vlan)#name zodiac5
Switch(config-vlan)#exit
Switch(config)#vlan 30
Switch(config-vlan)#name zodiac6
Switch(config-vlan)#exit
Switch(config)#exit

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, Gi0/1, Gi0/2
10  zodiac4        active    Fa0/2, Fa0/4
20  zodiac5        active    Fa0/2, Fa0/5
30  zodiac6        active    Fa0/3, Fa0/6
40  fa0/10         active
1002 fddi-default  active
1003 token-ring-default  active
1004 fddi-token-default  active
1005 token-ring-default  active
Switch#confd
Configuring from terminal, memory, or network [terminal]?
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#interface fa0/24
Switch(config-if)#switchport mode trunk
Switch(config-if)#exit
Switch(config)#interface FastEthernet0/2
Switch(config-if)#exit
Switch(config)#end
Switch#show database

% Warning: It is recommended to configure VLAN from config mode,
as VLAN database mode is being deprecated. Please consult user
documentation for configuring VTP/VLAN in config mode.

Switch(vlan)#
*SYS-5-CONFIG_I: Configured from console by console

Switch(vlan)#exit
APPLY completed.
Exiting...
Switch#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#interface FastEthernet0/1
Switch(config-if)#exit
Switch(config)#end
Switch#
Switch#
*SYS-5-CONFIG_I: Configured from console by console

Switch#show interface fastethernet0/?
<0-24> Fastethernet interface number
Switch#show interface fastethernet0/?
<0-24> Fastethernet interface number
Switch#show interface fastethernet0/24 switchport
^
% Invalid input detected at '^' marker.

Switch#show interface fastethernet0/24 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)
Native VLAN: 1 (default)
Administrative private-vlan host-association: none
Administrative private-vlan mapping: none
Administrative private-vlan trunk native VLAN: none
Administrative private-vlan trunk encapsulation: dot1q

Switch#H6 to exit CLI focus
```

□ Top

Switch3 Physical Config **CLI** Attributes

```
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#interface fa0/24
Switch(config-if)#switchport mode trunk
Switch(config-if)#exit
Switch(config)#interface FastEthernet0/2
Switch(config-if)#exit
Switch(config)#end
Switch#show database

% Warning: It is recommended to configure VLAN from config mode,
as VLAN database mode is being deprecated. Please consult user
documentation for configuring VTP/VLAN in config mode.

Switch(vlan)#
*SYS-5-CONFIG_I: Configured from console by console

Switch(vlan)#exit
APPLY completed.
Exiting...
Switch#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#interface FastEthernet0/1
Switch(config-if)#exit
Switch(config)#end
Switch#
Switch#
*SYS-5-CONFIG_I: Configured from console by console

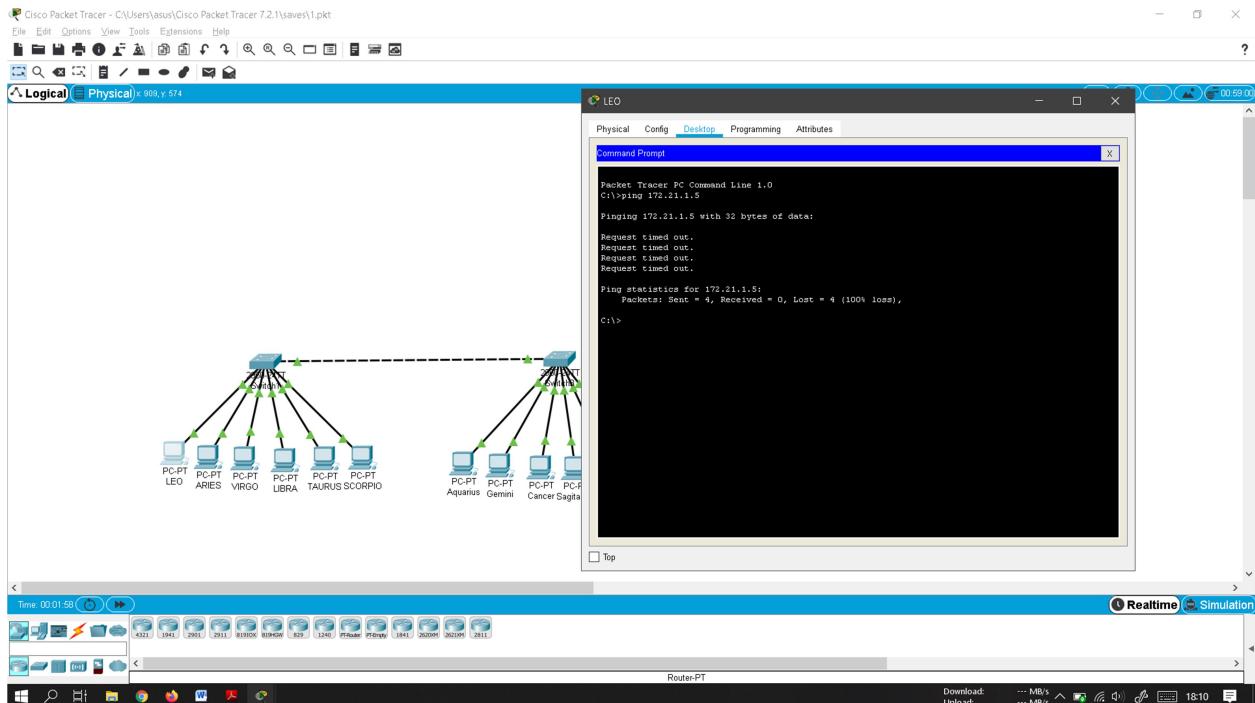
Switch#show interface fastethernet0/?
<0-24> Fastethernet interface number
Switch#show interface fastethernet0/?
<0-24> Fastethernet interface number
Switch#show interface fastethernet0/24 switchport
^
% Invalid input detected at '^' marker.

Switch#show interface fastethernet0/24 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)
Native VLAN: 1 (default)
Administrative private-vlan host-association: none
Administrative private-vlan mapping: none
Administrative private-vlan trunk native VLAN: none
Administrative private-vlan trunk encapsulation: dot1q

Switch#H6 to exit CLI focus
```

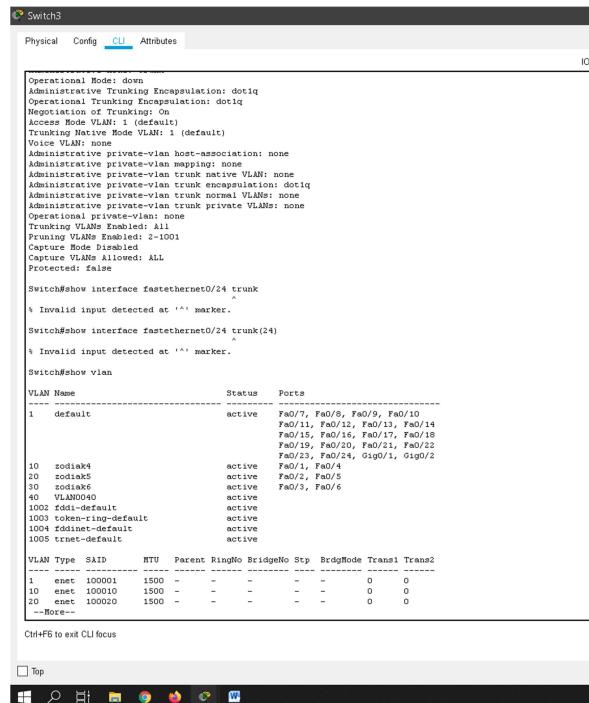
□ Top

Melakukan ping dari PC leo ke PC pisces



Hasil ping merupakan RTO (request time out) karena PC leo dan PC pisces tidak berada di dalam satu vyan dan memiliki network access yang berbeda.

## Melihat konfigurasi didalam vlan switch 2



```

Switch#show interface fastethernet0/24 trunk
^
% Invalid input detected at '^' marker.

Switch#show interface fastethernet0/24 trunk(24)
^
% Invalid input detected at '^' marker.

Switch#show vlan
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, Gig0/1, Gig0/2
                           Gig0/3, Gig0/4
10   zodiac4       active    Fa0/2, Fa0/5
20   zodiac5       active    Fa0/3, Fa0/6
30   zodiac6       active    Fa0/4
40   VLAN40        active
1003 token-ring-default active
1004 addinet-default active
1005 trinet-default active

VLAN Type      SAID    HTU    Parent RingNo BridgeNo Stp    BrdgMode Trans1 Trans2
---- -----
1   enet          +     -     -     -     -     -     0
10  enet          100010 1500  -     -     -     0     0
20  enet          100020 1500  -     -     -     0     0
--More--

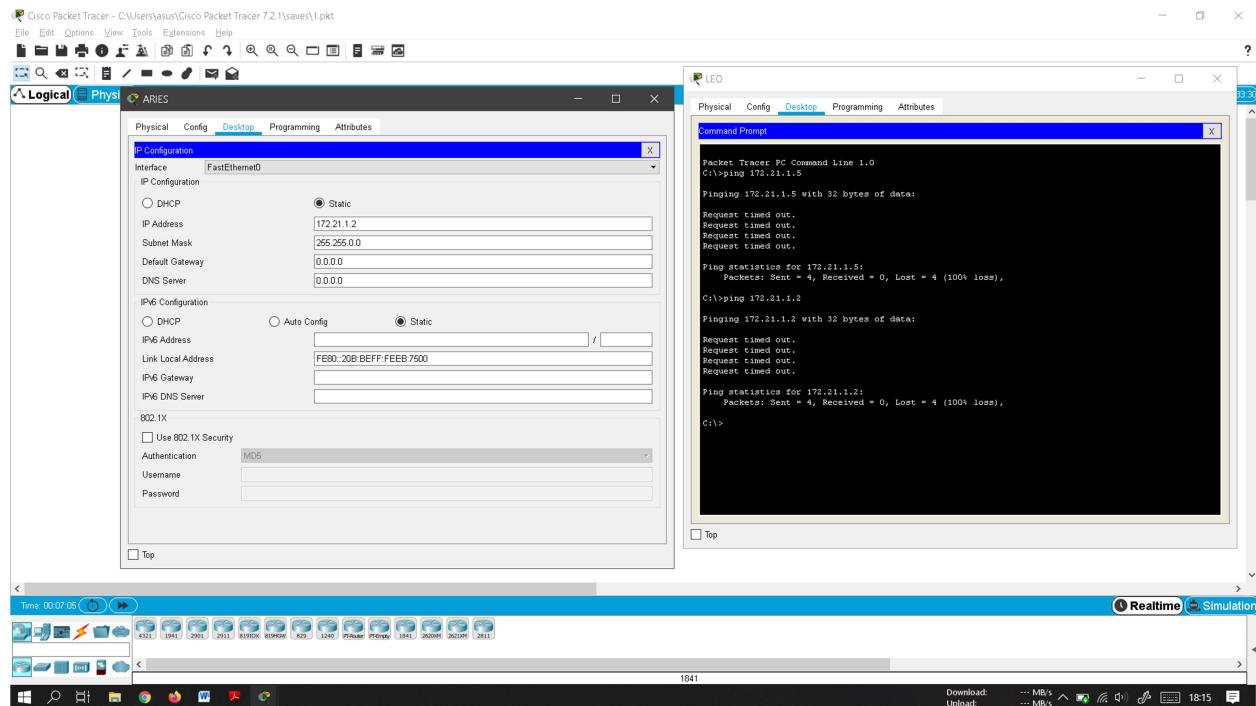
```

Ctrl+F6 to exit CLI focus

Top

pada langkah ini port – port fastethernet belum terkonfigurasi ke dalam vlan, bahkan vlan nya belum dibuat.

## Melakukan ping dari PC leo ke PC aries



Hasil ping dari PC leo ke PC aries “Request timed out” karena PC leo dan PC aries tidak berada dalam satu VLAN meskipun memiliki network access yang sama.

Melakukan ping terhadap PC leo ke PC aquarius

The screenshot shows the Cisco Packet Tracer interface. On the left, the configuration window for 'PC leo' is open, showing the 'Physical' tab selected. It displays the IP configuration for FastEthernet0, including static IP 172.21.1.2, subnet mask 255.255.0.0, and default gateway 0.0.0.0. On the right, a 'Command Prompt' window titled 'Leo' shows the output of several ping commands. The first two pings to 172.21.1.2 and 172.21.1.3 result in 'Request timed out'. The third ping to 172.21.1.3 shows statistics: Packets: Sent = 4, Received = 0, Lost = 4 (100% loss). The fourth ping to 172.21.3.4 also results in 'Request timed out'.

```
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),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

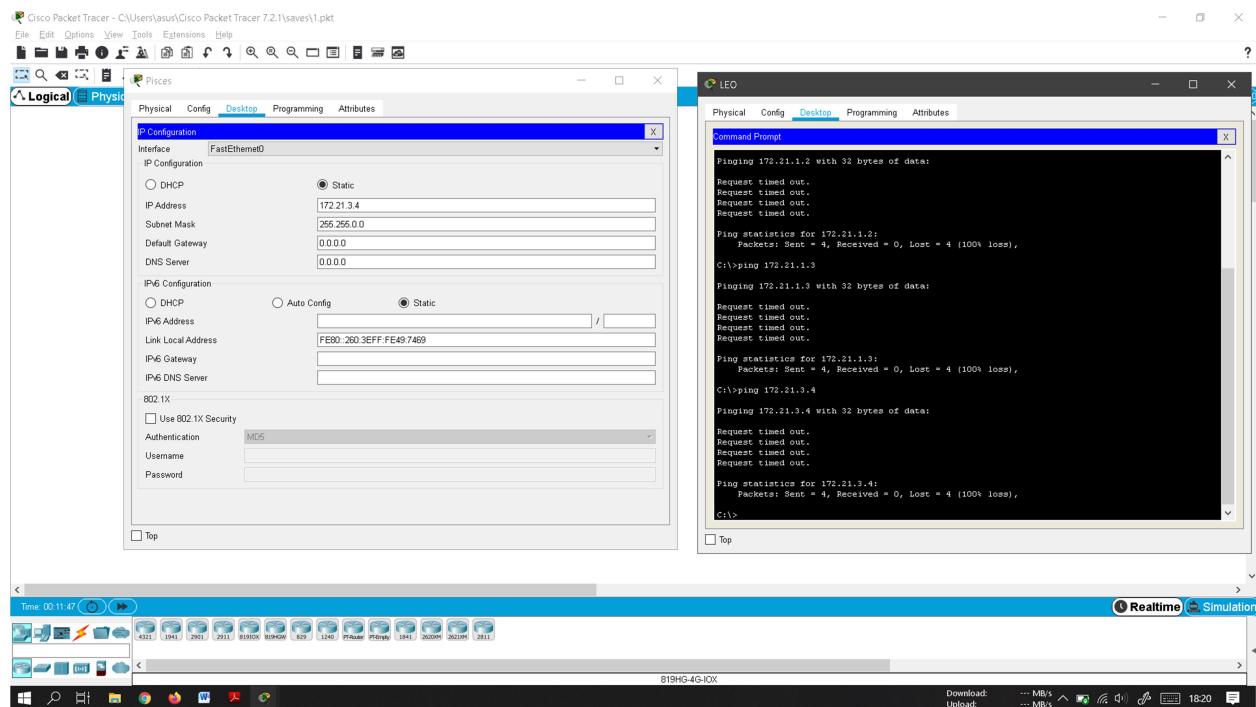
C:\>ping 172.21.1.3
Pinging 172.21.1.3 with 32 bytes of data:
Reply from 172.21.1.3: bytes=32 time=3ms TTL=128
Reply from 172.21.1.3: bytes=32 time=1ms TTL=128
Reply from 172.21.1.3: bytes=32 time=1ms TTL=128
Reply from 172.21.1.3: bytes=32 time=1ms TTL=128

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 = 3ms, Average = 0ms

C:\>ping 172.21.3.4
```

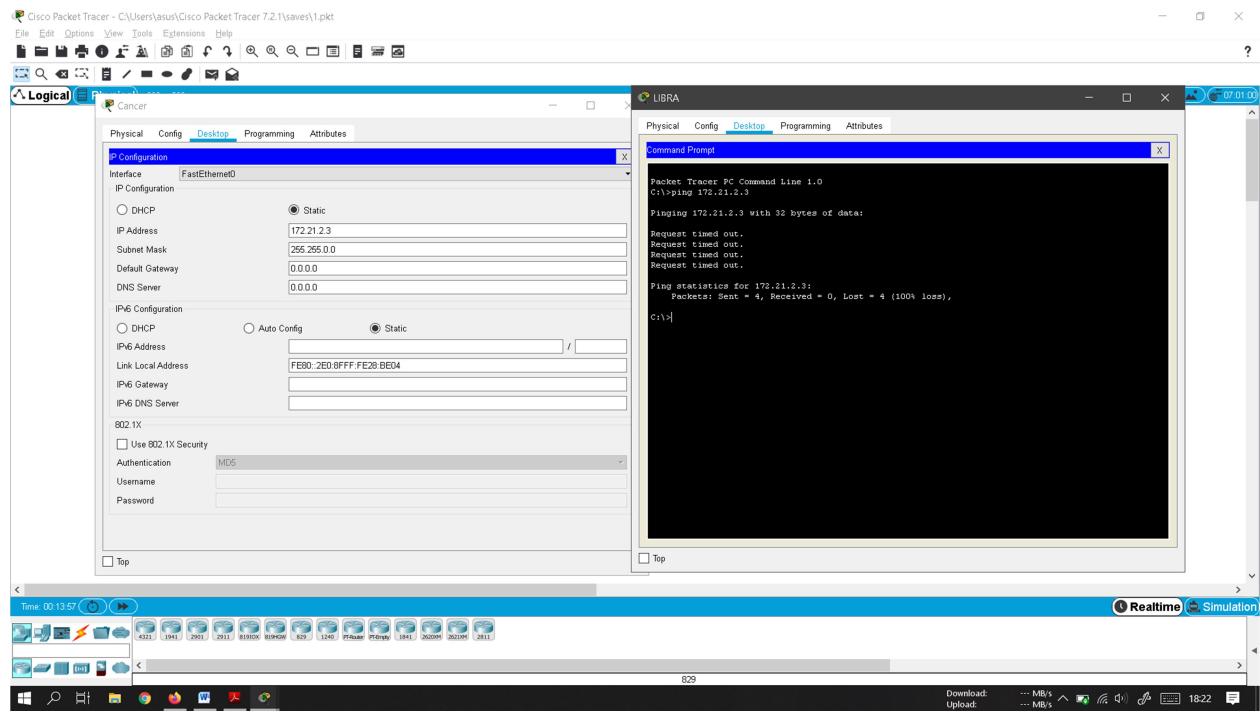
Hasil ping dari PC leo ke PC aquarius “Reply” karena PC leo dan PC aquarius berada dalam satu VLAN dan memiliki network access yang sama.

melakukan ping terhadap PC leo ke PC pisces



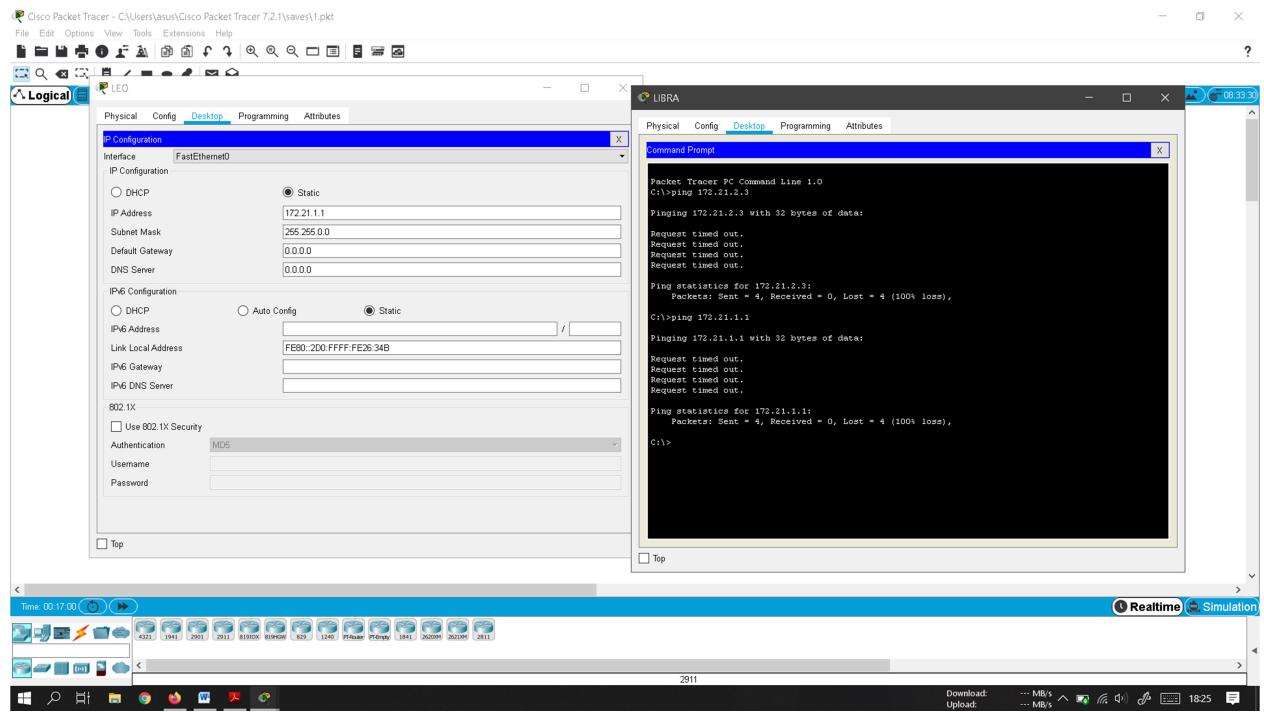
Hasil ping dari PC leo ke PC pisces “Request timed out” karena PC leo dan PC pisces tidak berada dalam satu VLAN dan memiliki network access yang berbeda.

## Melakukan ping terhadap PC Libra ke PC cancer



Hasil ping dari PC libra ke PC cancer “Request timed out” karena PC libra dan PC cancer tidak berada dalam satu VLAN meskipun memiliki network access yang sama.

## Melakukan ping terhadap PC libra ke PC leo



Hasil ping dari PC libra ke PC leo “Request timed out” karena PC libra dan PC leo tidak berada dalam satu VLAN meskipun memiliki network access yang sama.

## SOAL

6A.

No.	Variable	Nilai 1	Nilai 2	Nilai 3
1.	Nomor Vlan	10	20	30
2.	Nama Vlan	Zodiak 1	Zodiak 2	Zodiak 3
3.	Port	Fa0/1, Fa0/4	Fa0/2, Fa0/5	Fa0/3, Fa0/6
4.	Status	Active	Active	Active

6B. Percobaan pertama dilakukan supaya ketika membuat sebuah jaringan dan yang menggunakan jaringan tersebut banyak agak bingung dalam membagi jaringan

7A.

8A.