

# LAPORAN PRAKTIKUM JARINGAN KOMPUTER MODUL 4

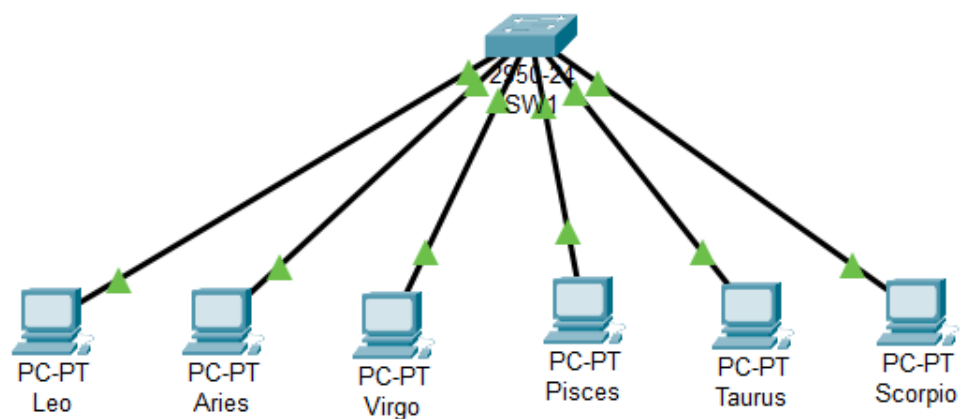
Nama : Afrialdy Asyura Buana

NIM : L200180175

Kelas : D

## Topologi 1

### 1. Rancangan jaringan



### 2. Alamat IP

Leo	Aries	Virgo	Pisces	Taurus	Scorpio
<p>Physical Config Desktop Program</p> <p>IP Configuration</p> <p>Interface FastEthernet0</p> <p>IP Configuration</p> <p><input type="radio"/> DHCP <input checked="" type="radio"/> Static</p> <p>IP Address 172.21.1.1</p> <p>Subnet Mask 255.255.0.0</p> <p>Default Gateway 0.0.0.0</p> <p>DNS Server 0.0.0.0</p> <p>IPv6 Configuration</p> <p><input type="radio"/> DHCP <input type="radio"/> Auto Config <input checked="" type="radio"/> Static</p> <p>IPv6 Address</p> <p>Link Local Address FE80:201:63</p> <p>IPv6 Gateway</p> <p>IPv6 DNS Server</p> <p>802.1X</p> <p><input type="checkbox"/> Use 802.1X Security</p> <p>Authentication</p> <p>Top</p>	<p>Physical Config Desktop Program</p> <p>IP Configuration</p> <p>Interface FastEthernet0</p> <p>IP Configuration</p> <p><input type="radio"/> DHCP <input checked="" type="radio"/> Static</p> <p>IP Address 172.21.1.2</p> <p>Subnet Mask 255.255.0.0</p> <p>Default Gateway 0.0.0.0</p> <p>DNS Server 0.0.0.0</p> <p>IPv6 Configuration</p> <p><input type="radio"/> DHCP <input type="radio"/> Auto Config <input checked="" type="radio"/> Static</p> <p>IPv6 Address</p> <p>Link Local Address FE80:200:C</p> <p>IPv6 Gateway</p> <p>IPv6 DNS Server</p> <p>802.1X</p> <p><input type="checkbox"/> Use 802.1X Security</p> <p>Authentication</p> <p>Top</p>	<p>Physical Config Desktop Program</p> <p>IP Configuration</p> <p>Interface FastEthernet0</p> <p>IP Configuration</p> <p><input type="radio"/> DHCP <input checked="" type="radio"/> Static</p> <p>IP Address 172.21.1.3</p> <p>Subnet Mask 255.255.0.0</p> <p>Default Gateway 0.0.0.0</p> <p>DNS Server 0.0.0.0</p> <p>IPv6 Configuration</p> <p><input type="radio"/> DHCP <input type="radio"/> Auto Config <input checked="" type="radio"/> Static</p> <p>IPv6 Address</p> <p>Link Local Address FE80:2C</p> <p>IPv6 Gateway</p> <p>IPv6 DNS Server</p> <p>802.1X</p> <p><input type="checkbox"/> Use 802.1X Security</p> <p>Authentication</p> <p>Top</p>	<p>Physical Config Desktop Program</p> <p>IP Configuration</p> <p>Interface FastEthernet0</p> <p>IP Configuration</p> <p><input type="radio"/> DHCP <input checked="" type="radio"/> Static</p> <p>IP Address 172.21.1.4</p> <p>Subnet Mask 255.255.0.0</p> <p>Default Gateway 0.0.0.0</p> <p>DNS Server 0.0.0.0</p> <p>IPv6 Configuration</p> <p><input type="radio"/> DHCP <input type="radio"/> Auto Config <input checked="" type="radio"/> Static</p> <p>IPv6 Address</p> <p>Link Local Address FE80:290:2</p> <p>IPv6 Gateway</p> <p>IPv6 DNS Server</p> <p>802.1X</p> <p><input type="checkbox"/> Use 802.1X Security</p> <p>Authentication</p> <p>Top</p>	<p>Physical Config Desktop Program</p> <p>IP Configuration</p> <p>Interface FastEthernet0</p> <p>IP Configuration</p> <p><input type="radio"/> DHCP <input checked="" type="radio"/> Static</p> <p>IP Address 172.21.1.5</p> <p>Subnet Mask 255.255.0.0</p> <p>Default Gateway 0.0.0.0</p> <p>DNS Server 0.0.0.0</p> <p>IPv6 Configuration</p> <p><input type="radio"/> DHCP <input type="radio"/> Auto Config <input checked="" type="radio"/> Static</p> <p>IPv6 Address</p> <p>Link Local Address FE80:201:96</p> <p>IPv6 Gateway</p> <p>IPv6 DNS Server</p> <p>802.1X</p> <p><input type="checkbox"/> Use 802.1X Security</p> <p>Authentication</p> <p>Top</p>	<p>Physical Config Desktop Program</p> <p>IP Configuration</p> <p>Interface FastEthernet0</p> <p>IP Configuration</p> <p><input type="radio"/> DHCP <input checked="" type="radio"/> Static</p> <p>IP Address 172.21.1.6</p> <p>Subnet Mask 255.255.0.0</p> <p>Default Gateway 0.0.0.0</p> <p>DNS Server 0.0.0.0</p> <p>IPv6 Configuration</p> <p><input type="radio"/> DHCP <input type="radio"/> Auto Config <input checked="" type="radio"/> Static</p> <p>IPv6 Address</p> <p>Link Local Address FE80:206:2AFF:FE4A:30D1</p> <p>IPv6 Gateway</p> <p>IPv6 DNS Server</p> <p>802.1X</p> <p><input type="checkbox"/> Use 802.1X Security</p> <p>Authentication</p> <p>Top</p>

### 3. 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
Trans1 Trans2
-----
10    enet    100010   1500    -      -      -      -      -
0      0
```

NO	Variabel	Nilai
1.	Nomor VLAN	10
2.	Nama VLAN	zodiak1
3.	Port	Fa 0/1, Fa 0/4
4.	Status	active

Telah membuat no VLAN 10 dengan nama zodiak1 dan memiliki port Fa 0/1 dan Fa 0/4 yang merupakan anggota dari zodiak1 yaitu Leo dan Libra, dan berstatus active.

### 4. 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
Trans1 Trans2
-----
20    enet    100020   1500    -      -      -      -      -
0      0
```

NO	Variabel	Nilai
1.	Nomor VLAN	20
2.	Nama VLAN	zodiak2

3.	Port	Fa 0/2, Fa 0/5
4.	Status	active

Telah membuat no VLAN 20 dengan nama zodiak2 dan memiliki port Fa 0/2 dan Fa 0/5 yang merupakan anggota dari zodiak2 yaitu Aries dan Taurus, dan berstatus active.

#### 5. 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

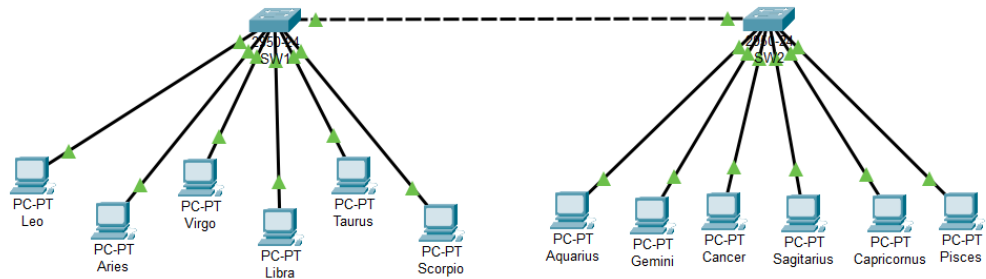
Switch>
```

NO	Variabel	Nilai
1.	Nomor VLAN	30
2.	Nama VLAN	zodiak3
3.	Port	Fa 0/3, Fa 0/5
4.	Status	active

Telah membuat no VLAN 30 dengan nama zodiak3 dan memiliki port Fa 0/3 dan Fa 0/6 yang merupakan anggota dari zodiak3 yaitu Virgo dan Scorpio, dan berstatus active.

## Topologi 2

### 1. Rancangan Jaringan



### 2. Trunk pada switch 1

```
Switch#show interface FastEthernet 0/7 switchport
Name: Fa0/7
Switchport: Enabled
Administrative Mode: trunk
Operational Mode: trunk
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

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
------	------	------	-----	--------	--------	----------	-----	----------	--------	--------

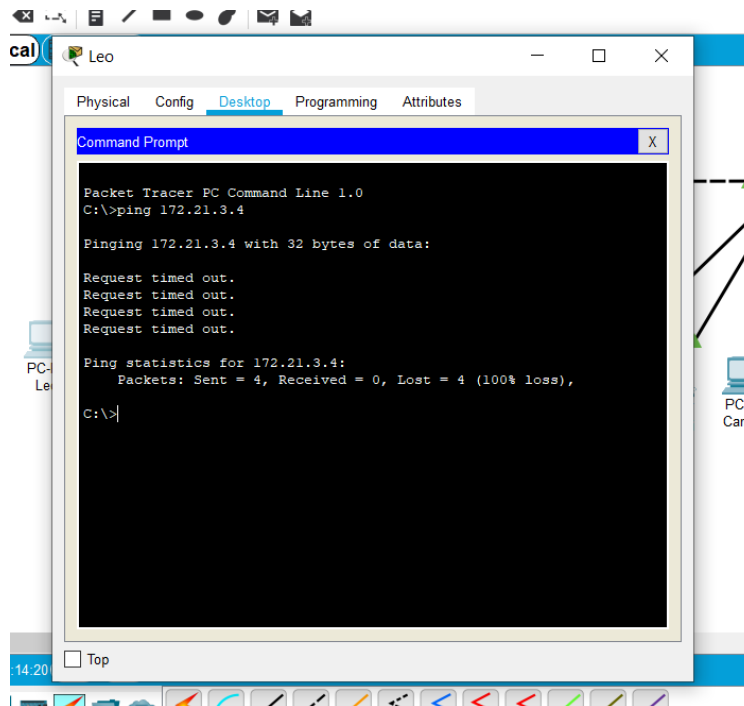
Remote SPAN VLANs

Primary	Secondary	Type	Ports
---------	-----------	------	-------

Switch#

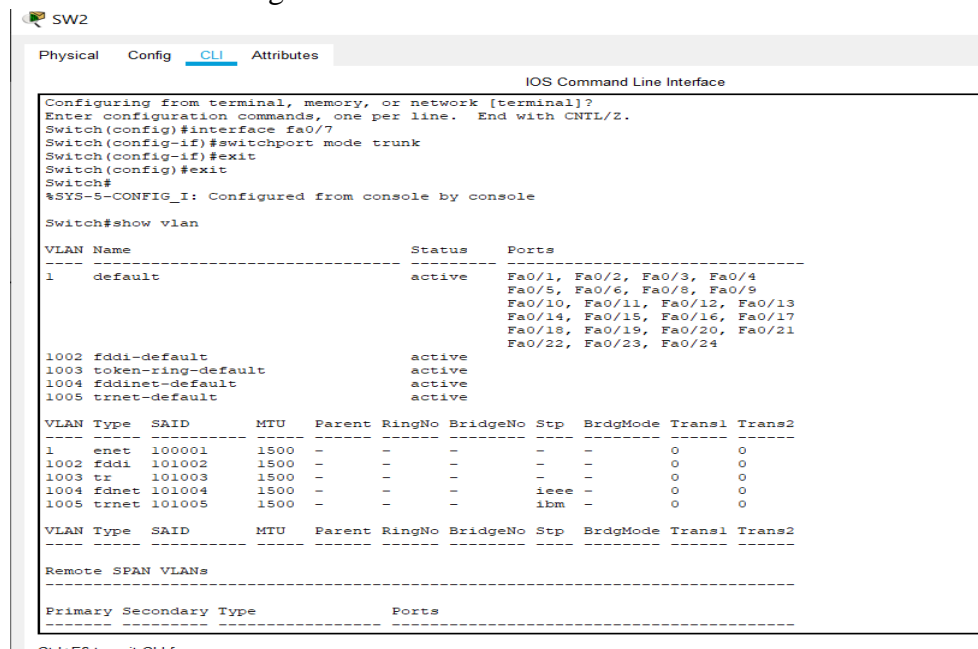
Pada langkah ini port yang sudah terkonfigurasi ke dalam vlan yaitu port 0/1 sampai port 0/6, sedangkan port 0/7 untuk trunking antar switch.

### 3. Melakukan ping dari PC leo ke PC pisces



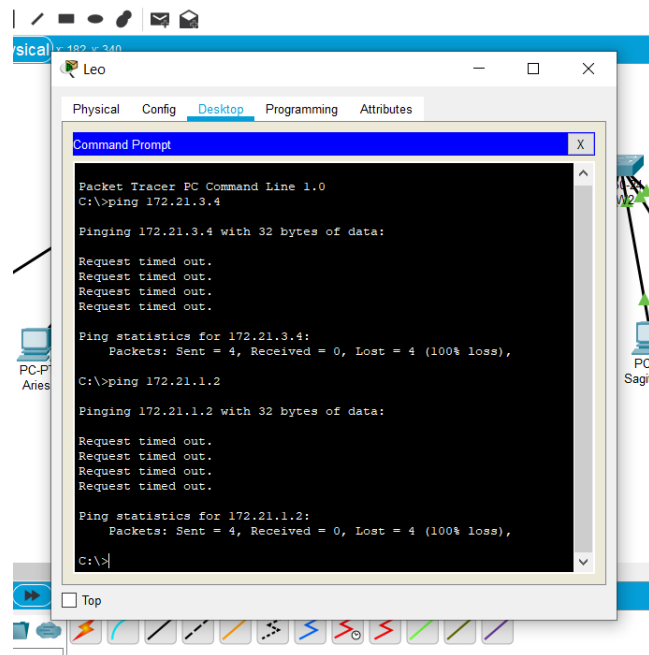
Hasil ping dari PC leo ke PC pisces “Request timed out” karena PC leo dan PC pisces tidak berada dalam satu VLAN dan memiliki network access yang berbeda.

### 4. Untuk melihat konfigurasi



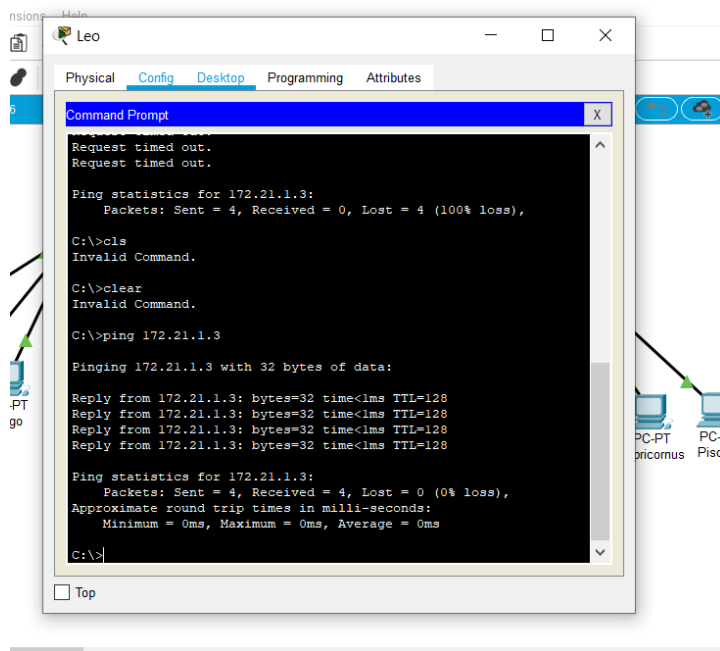
Pada langkah ini port port fastethernet belum terkonfigurasi ke dalam VLAN, bahkan VLAN nya belum dibuat

## 5. Melakukan ping dari PC Leo ke PC Aries



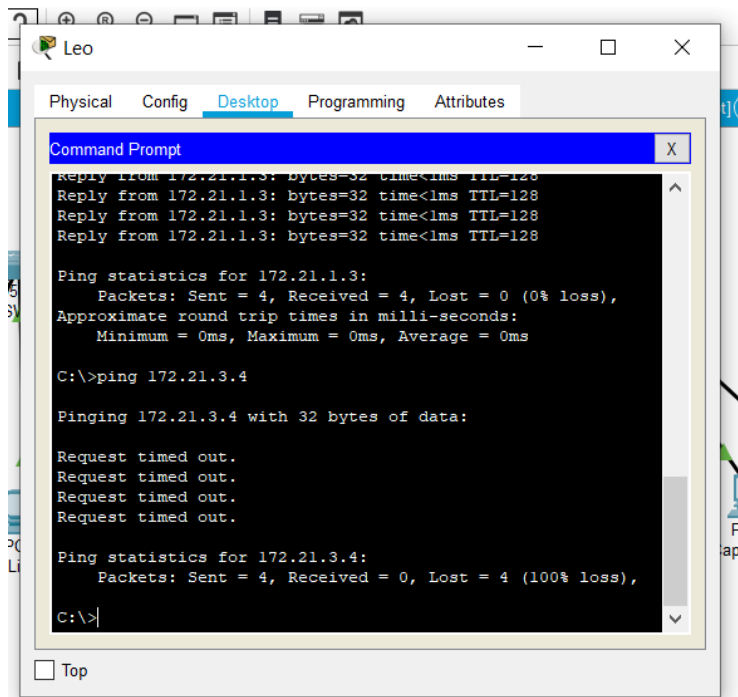
Hasil ping dari PC leo ke PC aries “Request timed out” karena PC leo dan PC aries tidak berada dalam satu VLAN meskipun memiliki network access yang sama.

## 6. Melakukan ping dari PC leo ke PC aquarius



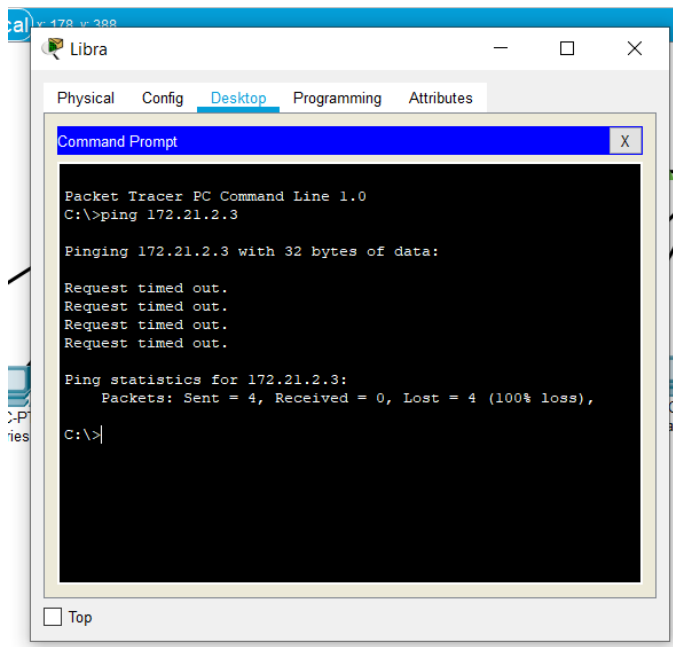
Hasil ping dari PC leo ke PC aquarius “Reply” karena PC leo dan PC aquarius berada dalam satu VLAN dan memiliki network access yang sama.

7. Melakukan ping dari 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.

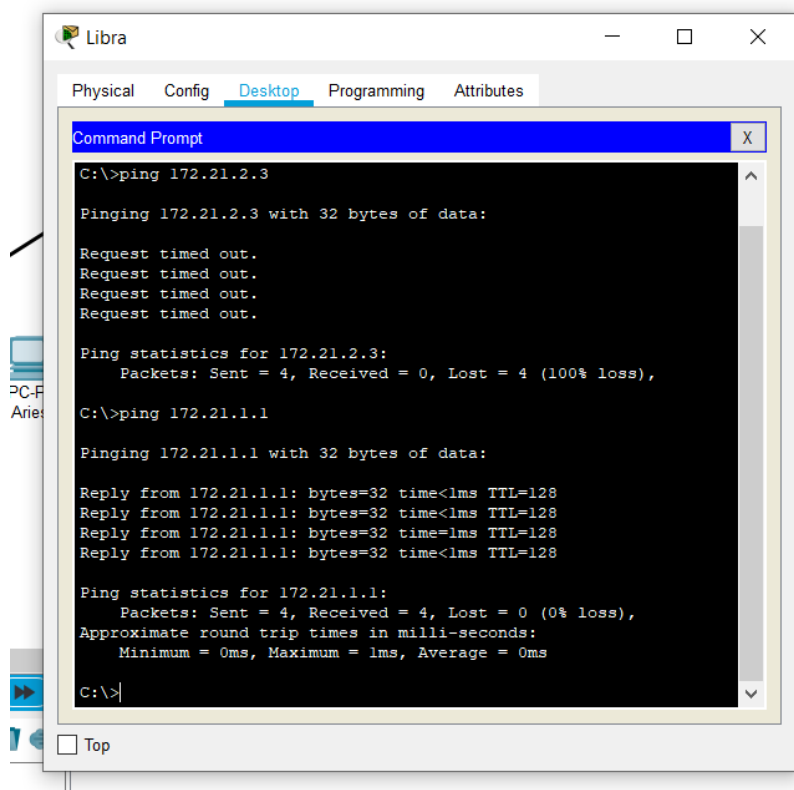
8. Melakukan ping dari PC libra ke PC cancer



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.



9. Melakukan ping dari PC libra ke PC leo



The screenshot shows a Command Prompt window titled "Libra" with tabs for Physical, Config, Desktop, Programming, and Attributes. The Desktop tab is active. The Command Prompt displays the following text:

```
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<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:\>
```

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.