

**Nama** : Sufyan Habib Zaini

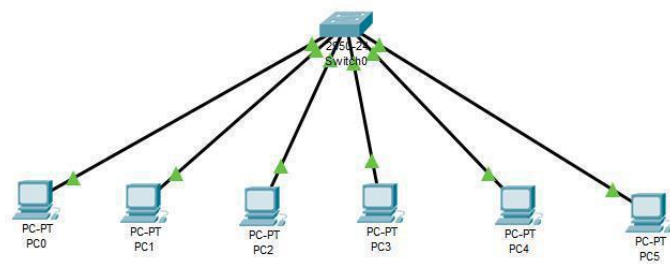
**NIM** : L200184098

**Kelas** : E

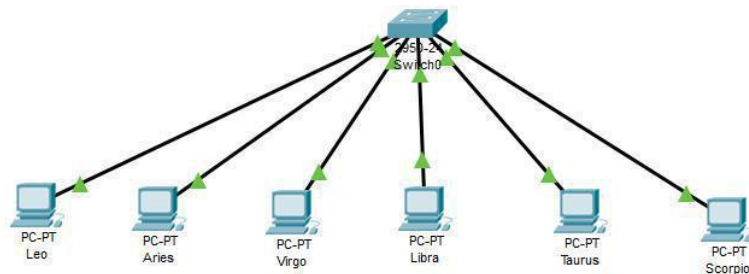
## MODUL 4

### KEGIATAN 1.TOPOLOGI 1

- A. Menggunakan packet tracker buat topologi berikut ini dengan menggunakan switch



- B. Beri nama masing-masing perangkat dengan SW1(switch), Leo(PC0), Aries(PC1), Virgo(PC2), Pisces(PC3), Taurus(PC4), dan scorpio(PC5)



C. Konfigurasi masing-masing PC dengan nama dan alamat IP

➤ Leo = 172.21.1.1/24

The screenshot shows the configuration window for a PC named 'Leo'. The 'Desktop' tab is selected. Under the 'IP Configuration' section, the 'Static' radio button is chosen. The IP Address is set to 172.21.1.1, Subnet Mask to 255.255.0.0, Default Gateway to 0.0.0.0, and DNS Server to 0.0.0.0. A warning message states: 'Another device has attempted to use this IP Address.' The 'IPv6 Configuration' section has 'Static' selected, with IPv6 Address, Link Local Address (FE80::2E0:F7FF:FECA:335E), IPv6 Gateway, and IPv6 DNS Server fields. The '802.1X' section has 'Use 802.1X Security' unchecked, with 'Authentication' set to MD5 and empty fields for Username and Password. A 'Top' button is at the bottom left.

➤ Aries = 172.21.1.2/24

The screenshot shows the configuration window for a PC named 'Aries'. The 'Desktop' tab is selected. Under the 'IP Configuration' section, the 'Static' radio button is chosen. The IP Address is set to 172.21.1.2, Subnet Mask to 255.255.0.0, Default Gateway to 0.0.0.0, and DNS Server to 0.0.0.0. The 'IPv6 Configuration' section has 'Static' selected, with IPv6 Address, Link Local Address (FE80::2E0:70FF:FE22:7794), IPv6 Gateway, and IPv6 DNS Server fields. The '802.1X' section has 'Use 802.1X Security' unchecked, with 'Authentication' set to MD5 and empty fields for Username and Password. A 'Top' button is at the bottom left.

➤ Virgo = 172.21.1.3/24

The screenshot shows the 'Virgo' network configuration window. The 'Desktop' tab is selected. Under the 'Static' configuration, the IP Address is set to 172.21.1.3, Subnet Mask to 255.255.0.0, Default Gateway to 0.0.0.0, and DNS Server to 0.0.0.0. The IPv6 Configuration section shows 'Static' selected, with IPv6 Address, Link Local Address (FE80::290:2BFF:FE2D:1747), IPv6 Gateway, and IPv6 DNS Server fields. The 802.1X section has 'Use 802.1X Security' unchecked, with Authentication set to MD5 and empty Username and Password fields. A 'Top' button is at the bottom left.

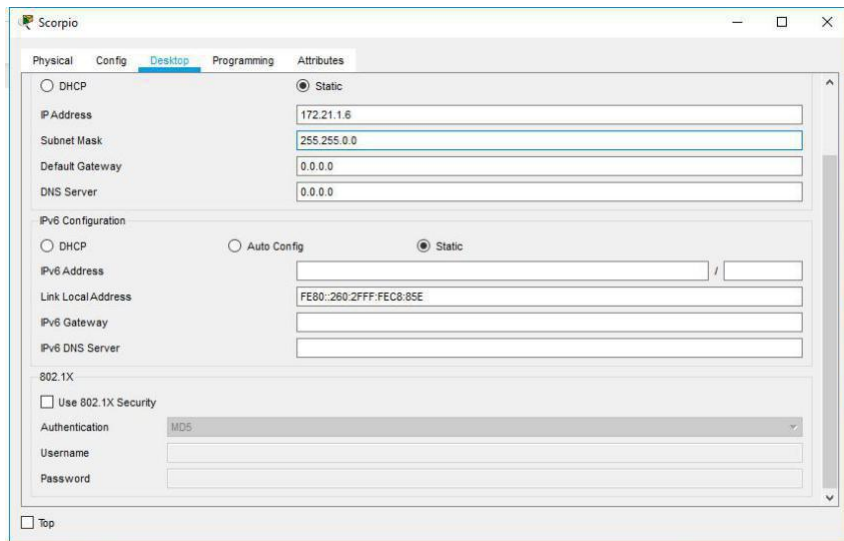
➤ Libra = 172.21.1.4/24

The screenshot shows the 'Libra' network configuration window. The 'Desktop' tab is selected. Under the 'Static' configuration, the IP Address is set to 172.21.1.4, Subnet Mask to 255.255.0.0, Default Gateway to 0.0.0.0, and DNS Server to 0.0.0.0. The IPv6 Configuration section shows 'Static' selected, with IPv6 Address, Link Local Address (FE80::20B:BEFF:FE04:555E), IPv6 Gateway, and IPv6 DNS Server fields. The 802.1X section has 'Use 802.1X Security' unchecked, with Authentication set to MD5 and empty Username and Password fields. A 'Top' button is at the bottom left.

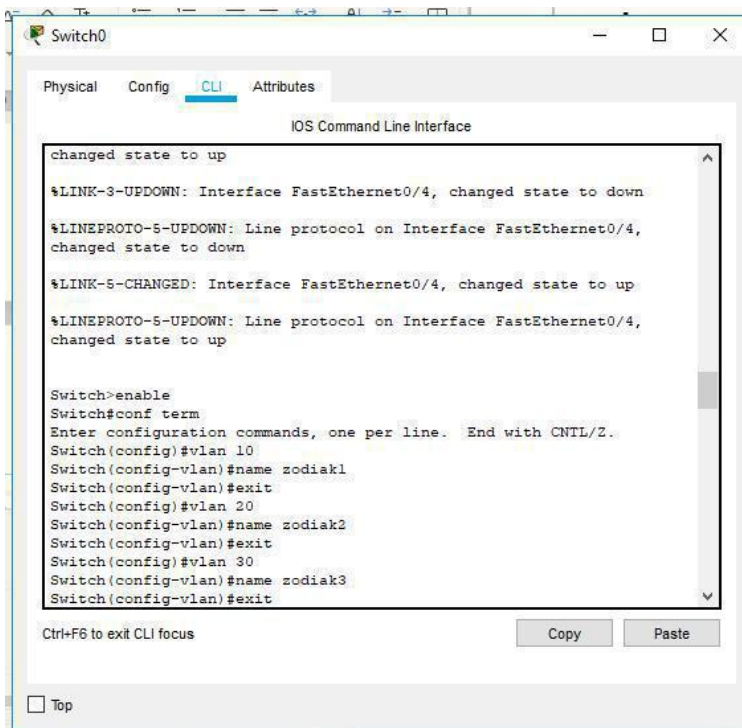
Taurus = 172.21.1.5/24

The screenshot shows the 'Taurus' network configuration window. The 'Desktop' tab is selected. Under the 'Static' configuration, the IP Address is set to 172.21.1.5, Subnet Mask to 255.255.0.0, Default Gateway to 0.0.0.0, and DNS Server to 0.0.0.0. A red error message 'This address is already used in the network.' is displayed next to the IP Address field. The IPv6 Configuration section shows 'Static' selected, with IPv6 Address, Link Local Address (FE80::202:16FF:FEA4:2810), IPv6 Gateway, and IPv6 DNS Server fields. The 802.1X section has 'Use 802.1X Security' unchecked, with Authentication set to MD5 and empty Username and Password fields. A 'Top' button is at the bottom left.

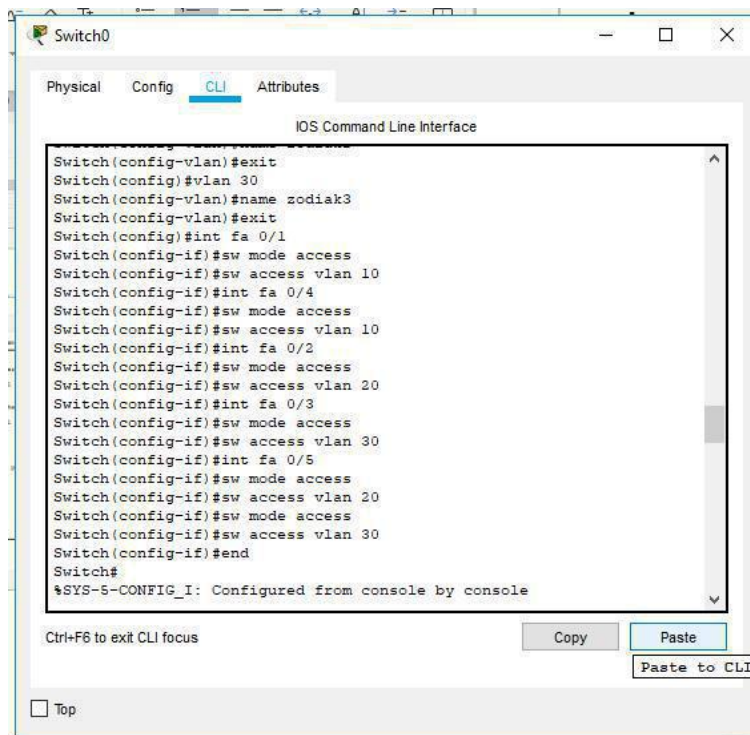
➤ Scorpio = 172.21.1.6/24



D. Konfigurasi pada switch dengan mode user atau mode privileged, buat 3 VLAN dengan nama zodiak1, zodiak2, dan zodiak3.



- E. Pada mode configuration, konfigurasi port-port switch ke dalam VLAN zodiak1, zodiak2, dan zodiak3.



The screenshot shows a network configuration window titled 'Switch0' with tabs for Physical, Config, CLI, and Attributes. The CLI tab is active, displaying the 'IOS Command Line Interface'. The following commands have been entered:

```
Switch(config-vlan)#exit
Switch(config)#vlan 30
Switch(config-vlan)#name zodiak3
Switch(config-vlan)#exit
Switch(config)#int fa 0/1
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 10
Switch(config-if)#int fa 0/4
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 10
Switch(config-if)#int fa 0/2
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 20
Switch(config-if)#int fa 0/3
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 30
Switch(config-if)#int fa 0/5
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 20
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 30
Switch(config-if)#end
Switch#
%SYS-5-CONFIG_I: Configured from console by console
```

At the bottom of the CLI window, there are buttons for 'Copy', 'Paste', and 'Paste to CLI'. Below the CLI window, there is a checkbox labeled 'Top' and a note 'Ctrl+F6 to exit CLI focus'.

- F. Pada mode user atau mode privileged, lihat konfigurasi VLAN yang telah dibuat.

Informasi VLAN keseluruhan

```
Switch#show vlan brief
```

VLAN	Name	Status	Ports
1	default	active	Fa0/6, 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
30	zodiak3	active	Fa0/3, Fa0/5
1002	fdi-default	active	
1003	token-ring-default	active	
1004	fdinet-default	active	
1005	tnet-default	active	

➤ 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
Trans1 Trans2
-----
10   enet    100010   1500  -     -     -     -     -     0
0
```

**Tugas 6A**

No	Variabel	Nilai
1.	Nomor VLAN	10
2.	Nama VLAN	Zodiak1
3.	Port	Fa0/1, Fa0/4
4.	Status	Active

➤ Informasi VLAN 20

```
Switch#show vlan id 20

VLAN Name                Status    Ports
-----
20   zodiak2                active    Fa0/2

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

**Tugas 6A**

No	Variabel	Nilai
1.	Nomor VLAN	20
2.	Nama VLAN	Zodiak2
3.	Port	Fa0/2
4.	Status	Active

➤ Informasi VLAN 30

```
Switch#show vlan id 30

VLAN Name                Status    Ports
-----
30   zodiak3                active    Fa0/3, Fa0/5

VLAN Type  SAID      MTU   Parent RingNo BridgeNo Stp  BrdgMode
Trans1 Trans2
-----
30   enet    100030   1500  -     -     -     -     -     0
0

Switch#
```

### Tugas 6A

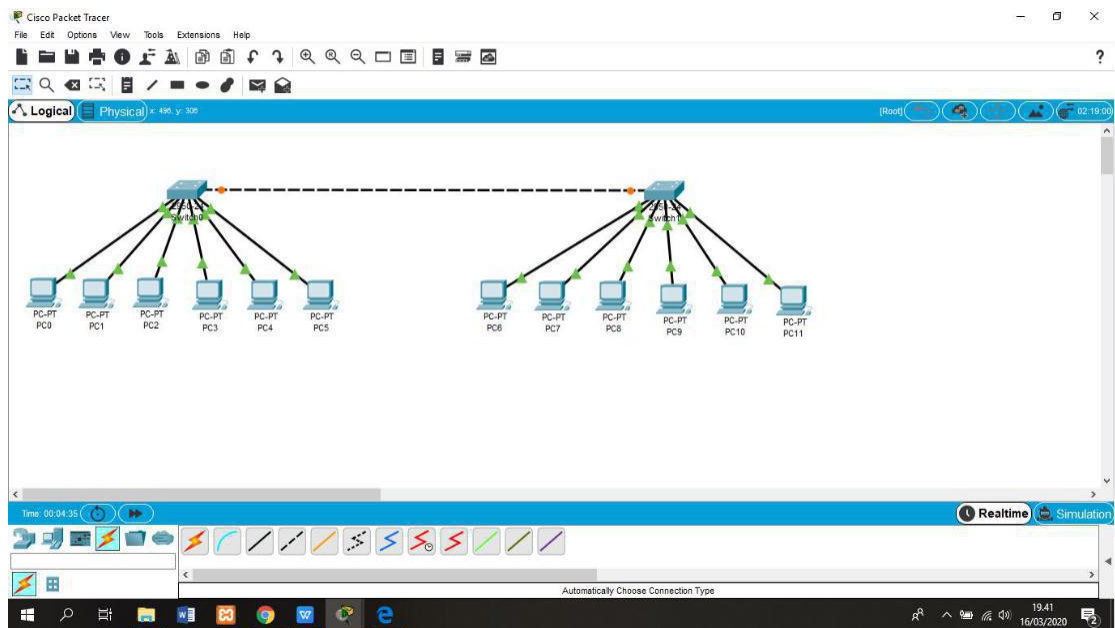
No	Variabel	Nilai
1.	Nomor VLAN	30
2.	Nama VLAN	Zodiak3
3.	Port	Fa0/3, Fa0/5
4.	Status	Active

**Tugas 6B:** Jelaskan secara singkat hasil yang anda peroleh dari **tugas 6A**.

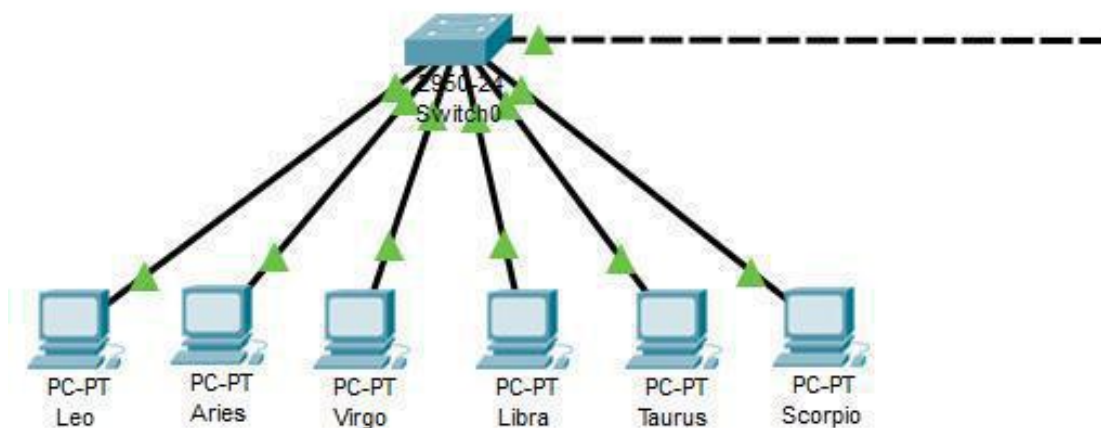
- Dalam VLAN ID, status VLAN menjadi active
- Identitas VLAN (1,2,3) sesuai dari pembuatan nama VLAN dengan nama zodiak1, zodiak2, dan zodiak3
- Port yang terdaftar dalam VLAN sesuai dengan konfigurasi yang telah dilakukan sebelumnya.

## KEGIATAN 2. TOPOLOGI 2

- A. Menggunakan packet tracker buat topologi berikut ini dengan menggunakan switch catalyst 2950.

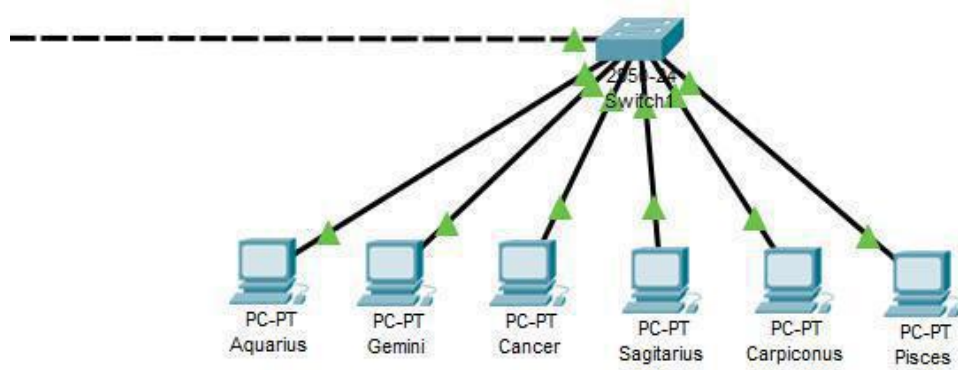


- B. Beri nama masing-masing perangkat dengan SW1(switch 1), Leo(PC0), Aries(PC1), Virgo(PC2), Pisces(PC3), Taurus(PC4), dan scorpio(PC5) untuk segmen switch 1.





- C. Beri nama masing-masing perangkat dengan SW2(switch 2), Aquarius(PC6), Gemini(PC7), Cancer(PC8), Sagitarius(PC9), Carpiconus(PC10), dan Pisces(PC11) untuk segmen switch 2.



- D. Konfigurasi masing-masing PC dengan nama dan alamat IP

➤ Leo = 172.21.1.1/24

Leo

Physical Config Desktop Programming Attributes

☐ DHCP ☒ Static

IP Address: 172.21.1.1

Subnet Mask: 255.255.0.0

Default Gateway: 0.0.0.0

DNS Server: 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::260:3EFF:FE8B:723B

IPv6 Gateway:

IPv6 DNS Server:

802.1X

☐ Use 802.1X Security

Authentication: MDS

Username:

Password:

☐ Top

➤ Aries = 172.21.1.2/24

The screenshot shows the 'Aries' configuration window with the 'Desktop' tab selected. The 'Static' radio button is chosen for the IP configuration. The IP Address is set to 172.21.1.2, Subnet Mask to 255.255.0.0, Default Gateway to 0.0.0.0, and DNS Server to 0.0.0.0. The IPv6 Configuration section has 'Static' selected, with IPv6 Address, Link Local Address (FE80::260:2FFF:FEA6:6632), IPv6 Gateway, and IPv6 DNS Server fields. The 802.1X section has 'Use 802.1X Security' unchecked, Authentication set to MDS, and empty Username and Password fields. A 'Top' button is at the bottom left.

Field	Value
IP Address	172.21.1.2
Subnet Mask	255.255.0.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0
IPv6 Address	
Link Local Address	FE80::260:2FFF:FEA6:6632
IPv6 Gateway	
IPv6 DNS Server	
Authentication	MDS
Username	
Password	

➤ Virgo = 172.21.2.1/24

The screenshot shows the 'Virgo' configuration window with the 'Desktop' tab selected. The 'Static' radio button is chosen for the IP configuration. The IP Address is set to 172.21.2.1, Subnet Mask to 255.255.0.0, Default Gateway to 0.0.0.0, and DNS Server to 0.0.0.0. The IPv6 Configuration section has 'Static' selected, with IPv6 Address, Link Local Address (FE80::260:2FFF:FE4C:938B), IPv6 Gateway, and IPv6 DNS Server fields. The 802.1X section has 'Use 802.1X Security' unchecked, Authentication set to MDS, and empty Username and Password fields. A 'Top' button is at the bottom left.

Field	Value
IP Address	172.21.2.1
Subnet Mask	255.255.0.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0
IPv6 Address	
Link Local Address	FE80::260:2FFF:FE4C:938B
IPv6 Gateway	
IPv6 DNS Server	
Authentication	MDS
Username	
Password	

➤ Libra = 172.21.2.2/24

The screenshot shows the 'Libra' configuration window with the 'Desktop' tab selected. The 'Static' radio button is chosen for the IP configuration. The IP Address is set to 172.21.2.2, Subnet Mask to 255.255.0.0, Default Gateway to 0.0.0.0, and DNS Server to 0.0.0.0. The IPv6 Configuration section has 'Static' selected, with an empty IPv6 Address field, Link Local Address set to FE80::201:C9FF:FE7A:8750, and empty fields for IPv6 Gateway and IPv6 DNS Server. The 802.1X section has 'Use 802.1X Security' unchecked, Authentication set to MD5, and empty fields for Username and Password. A 'Top' button is at the bottom left.

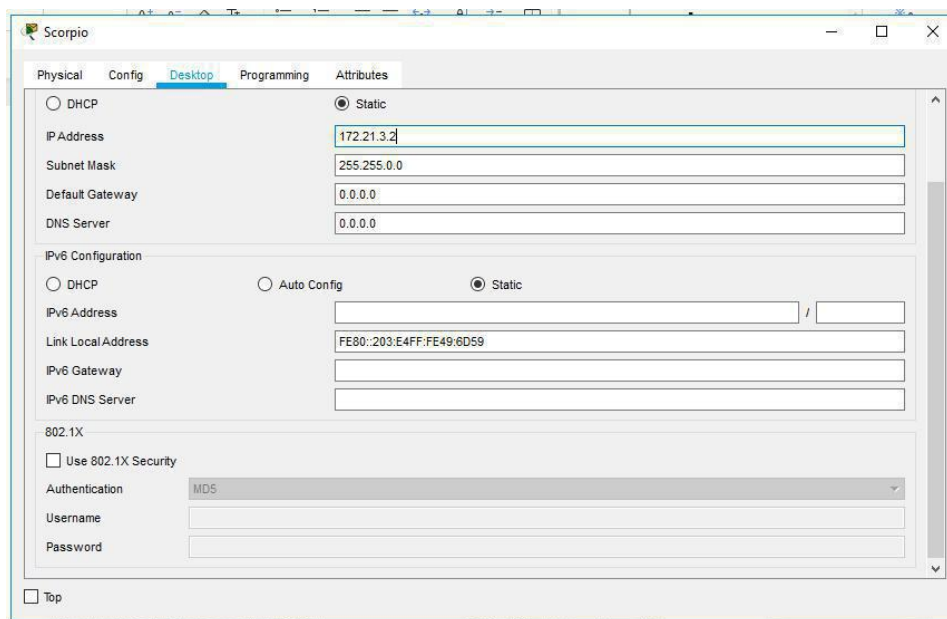
Field	Value
IP Address	172.21.2.2
Subnet Mask	255.255.0.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0
IPv6 Address	
Link Local Address	FE80::201:C9FF:FE7A:8750
IPv6 Gateway	
IPv6 DNS Server	
Use 802.1X Security	<input type="checkbox"/>
Authentication	MD5
Username	
Password	

➤ Taurus = 172.21.3.1/24

The screenshot shows the 'Taurus' configuration window with the 'Desktop' tab selected. The 'Static' radio button is chosen for the IP configuration. The IP Address is set to 172.21.3.1, Subnet Mask to 255.255.0.0, Default Gateway to 0.0.0.0, and DNS Server to 0.0.0.0. The IPv6 Configuration section has 'Static' selected, with an empty IPv6 Address field, Link Local Address set to FE80::201:42FF:FE5E:C1C4, and empty fields for IPv6 Gateway and IPv6 DNS Server. The 802.1X section has 'Use 802.1X Security' unchecked, Authentication set to MD5, and empty fields for Username and Password. A 'Top' button is at the bottom left.

Field	Value
IP Address	172.21.3.1
Subnet Mask	255.255.0.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0
IPv6 Address	
Link Local Address	FE80::201:42FF:FE5E:C1C4
IPv6 Gateway	
IPv6 DNS Server	
Use 802.1X Security	<input type="checkbox"/>
Authentication	MD5
Username	
Password	

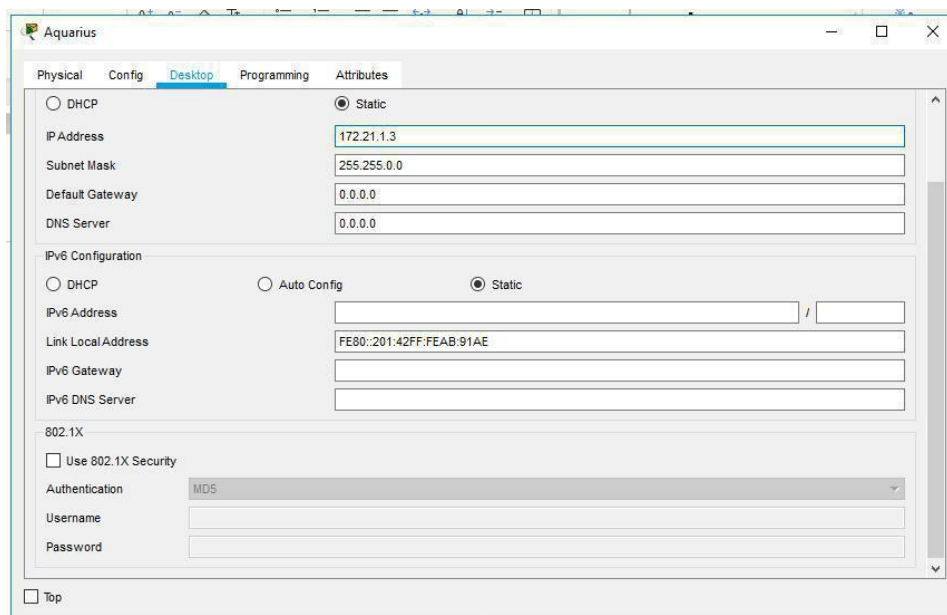
- Scorpio = 172.21.3.2/24



The image shows the 'Scorpio' configuration window with the 'Desktop' tab selected. The 'Static' radio button is chosen for IP configuration. The IP Address is set to 172.21.3.2, Subnet Mask to 255.255.0.0, Default Gateway to 0.0.0.0, and DNS Server to 0.0.0.0. Under 'IPv6 Configuration', 'Static' is also selected, with Link Local Address set to FE80::203:E4FF:FE49:6D59. The '802.1X' section has 'Use 802.1X Security' unchecked, and 'Authentication' is set to 'MDS'.

Field	Value
IP Address	172.21.3.2
Subnet Mask	255.255.0.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0
IPv6 Address	
Link Local Address	FE80::203:E4FF:FE49:6D59
IPv6 Gateway	
IPv6 DNS Server	
Use 802.1X Security	<input type="checkbox"/>
Authentication	MDS
Username	
Password	

- Aquarius = 172.21.1.3/24



The image shows the 'Aquarius' configuration window with the 'Desktop' tab selected. The 'Static' radio button is chosen for IP configuration. The IP Address is set to 172.21.1.3, Subnet Mask to 255.255.0.0, Default Gateway to 0.0.0.0, and DNS Server to 0.0.0.0. Under 'IPv6 Configuration', 'Static' is also selected, with Link Local Address set to FE80::201:42FF:FEAB:91AE. The '802.1X' section has 'Use 802.1X Security' unchecked, and 'Authentication' is set to 'MDS'.

Field	Value
IP Address	172.21.1.3
Subnet Mask	255.255.0.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0
IPv6 Address	
Link Local Address	FE80::201:42FF:FEAB:91AE
IPv6 Gateway	
IPv6 DNS Server	
Use 802.1X Security	<input type="checkbox"/>
Authentication	MDS
Username	
Password	

➤ Gemini = 172.21.1.4/24

The screenshot shows the 'Gemini' network configuration window. It has tabs for 'Physical', 'Config', 'Desktop', 'Programming', and 'Attributes'. The 'Desktop' tab is active. Under the 'Static' radio button, the 'IP Address' is set to '172.21.1.4', 'Subnet Mask' is '255.255.0.0', 'Default Gateway' is '0.0.0.0', and 'DNS Server' is '0.0.0.0'. The 'IPv6 Configuration' section has 'Static' selected, with 'IPv6 Address' empty, 'Link Local Address' set to 'FE80::201:64FF:FECD:6546', and 'IPv6 Gateway' and 'IPv6 DNS Server' empty. The '802.1X' section has 'Use 802.1X Security' unchecked, 'Authentication' set to 'MD5', and 'Username' and 'Password' fields empty. A 'Top' button is at the bottom left.

Field	Value
IP Address	172.21.1.4
Subnet Mask	255.255.0.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0
IPv6 Address	
Link Local Address	FE80::201:64FF:FECD:6546
IPv6 Gateway	
IPv6 DNS Server	
Use 802.1X Security	<input type="checkbox"/>
Authentication	MD5
Username	
Password	

➤ Cancer = 172.21.2.3/24

The screenshot shows the 'Cancer' network configuration window. It has tabs for 'Physical', 'Config', 'Desktop', 'Programming', and 'Attributes'. The 'Desktop' tab is active. Under the 'Static' radio button, the 'IP Address' is set to '172.21.2.3', 'Subnet Mask' is '255.255.0.0', 'Default Gateway' is '0.0.0.0', and 'DNS Server' is '0.0.0.0'. The 'IPv6 Configuration' section has 'Static' selected, with 'IPv6 Address' empty, 'Link Local Address' set to 'FE80::201:64FF:FEAE:BC78', and 'IPv6 Gateway' and 'IPv6 DNS Server' empty. The '802.1X' section has 'Use 802.1X Security' unchecked, 'Authentication' set to 'MD5', and 'Username' and 'Password' fields empty. A 'Top' button is at the bottom left.

Field	Value
IP Address	172.21.2.3
Subnet Mask	255.255.0.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0
IPv6 Address	
Link Local Address	FE80::201:64FF:FEAE:BC78
IPv6 Gateway	
IPv6 DNS Server	
Use 802.1X Security	<input type="checkbox"/>
Authentication	MD5
Username	
Password	

- Sagitarius = 172.21.2.4/24

The screenshot shows the 'Sagitarius' configuration window with the 'Desktop' tab selected. The 'Static' radio button is chosen for the IP configuration. The IP Address is set to 172.21.2.4, Subnet Mask to 255.255.0.0, Default Gateway to 0.0.0.0, and DNS Server to 0.0.0.0. The IPv6 Configuration section has 'Static' selected, with IPv6 Address, Link Local Address (FE80::201:43FF:FE35:D924), IPv6 Gateway, and IPv6 DNS Server fields. The 802.1X section has 'Use 802.1X Security' unchecked, Authentication set to 'MD5', and empty Username and Password fields. A 'Top' button is at the bottom left.

Field	Value
IP Address	172.21.2.4
Subnet Mask	255.255.0.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0
IPv6 Address	
Link Local Address	FE80::201:43FF:FE35:D924
IPv6 Gateway	
IPv6 DNS Server	
Use 802.1X Security	<input type="checkbox"/>
Authentication	MD5
Username	
Password	

- Carpiconus = 172.21.3.3/24

The screenshot shows the 'Carpiconus' configuration window with the 'Desktop' tab selected. The 'Static' radio button is chosen for the IP configuration. The IP Address is set to 172.21.3.3, Subnet Mask to 255.255.0.0, Default Gateway to 0.0.0.0, and DNS Server to 0.0.0.0. The IPv6 Configuration section has 'Static' selected, with IPv6 Address, Link Local Address (FE80::207:ECFF:FE81:DD87), IPv6 Gateway, and IPv6 DNS Server fields. The 802.1X section has 'Use 802.1X Security' unchecked, Authentication set to 'MD5', and empty Username and Password fields. A 'Top' button is at the bottom left.

Field	Value
IP Address	172.21.3.3
Subnet Mask	255.255.0.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0
IPv6 Address	
Link Local Address	FE80::207:ECFF:FE81:DD87
IPv6 Gateway	
IPv6 DNS Server	
Use 802.1X Security	<input type="checkbox"/>
Authentication	MD5
Username	
Password	

➤ Pisces = 172.21.3.4/24

The screenshot shows the 'Pisces' configuration window with the 'Desktop' tab selected. The 'Static' radio button is chosen for IP configuration. The IP Address is set to 172.21.3.4, Subnet Mask to 255.255.0.0, Default Gateway to 0.0.0.0, and DNS Server to 0.0.0.0. Under 'IPv6 Configuration', the 'Static' radio button is also selected, with IPv6 Address, Link Local Address (FE80::2E0:8FFF:FE1E:72E9), IPv6 Gateway, and IPv6 DNS Server fields. The '802.1X' section has 'Use 802.1X Security' unchecked, and 'Authentication' is set to 'MD5'.

<input type="radio"/> DHCP		<input checked="" type="radio"/> Static	
IP Address	172.21.3.4		
Subnet Mask	255.255.0.0		
Default Gateway	0.0.0.0		
DNS Server	0.0.0.0		
IPv6 Configuration			
<input type="radio"/> DHCP		<input type="radio"/> Auto Config	
		<input checked="" type="radio"/> Static	
IPv6 Address			
Link Local Address	FE80::2E0:8FFF:FE1E:72E9		
IPv6 Gateway			
IPv6 DNS Server			
802.1X			
<input type="checkbox"/> Use 802.1X Security			
Authentication	MD5		
Username			
Password			

☐ Top

E. Lakukan langkah 4 dan 5 laboratorium 1 untuk switch 1

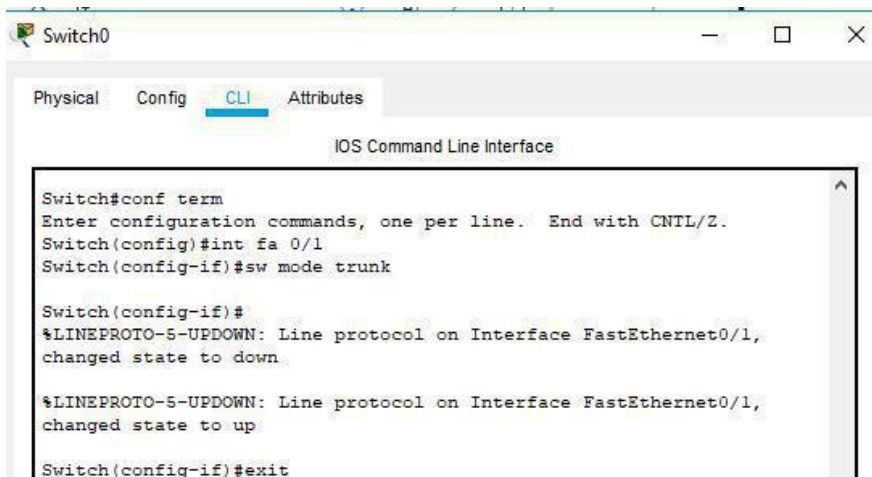
The screenshot shows the 'Switch0' configuration window with the 'CLI' tab selected. The 'IOS Command Line Interface' is displayed, showing a series of configuration commands for VLANs and interfaces. The commands include enabling the switch, entering configuration mode, creating VLANs 10, 20, and 30, and configuring interfaces fa 0/1, fa 0/2, fa 0/3, and fa 0/4. The configuration is completed with the 'end' command.

```
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)#int fa 0/1
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 10
Switch(config-if)#int fa 0/4
%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on FastEthernet0/1 (10), with Switch FastEthernet0/7 (1).
Switch(config-if)#int fa 0/4
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 10
Switch(config-if)#int fa 0/2
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 20
Switch(config-if)#int fa 0/3
%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on FastEthernet0/1 (10), with Switch FastEthernet0/7 (1).
Switch(config-if)#int fa 0/3
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 30
Switch(config-if)#int fa 0/5
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 20
Switch(config-if)#sw
%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on FastEthernet0/1 (10), with Switch FastEthernet0/7 (1)
% Ambiguous command: "s"
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 30
Switch(config-if)#end
```

Ctrl+F6 to exit CLI focus

☐ Top

F. Lakukan konfigurasi VLAN trunking pada switch 1



```
Switch0
Physical Config CLI Attributes
IOS Command Line Interface

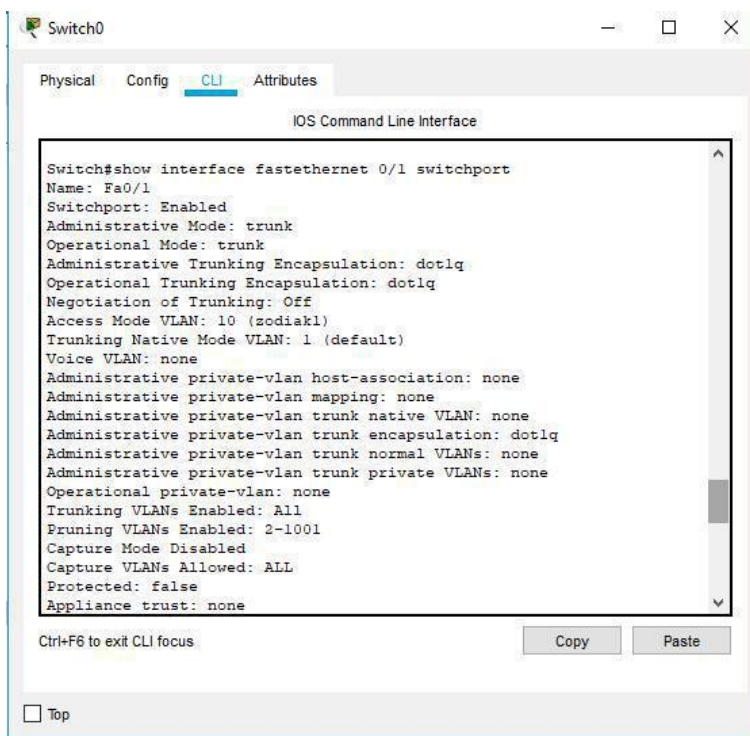
Switch#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#int fa 0/1
Switch(config-if)#sw mode trunk

Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1,
changed state to down.

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1,
changed state to up

Switch(config-if)#exit
```

G. Pada mode user atau mode privileged, lihat konfigurasi trunking yang telah dibuat



```
Switch0
Physical Config CLI Attributes
IOS Command Line Interface

Switch#show interface fastethernet 0/1 switchport
Name: Fa0/1
Switchport: Enabled
Administrative Mode: trunk
Operational Mode: trunk
Administrative Trunking Encapsulation: dot1q
Operational Trunking Encapsulation: dot1q
Negotiation of Trunking: Off
Access Mode VLAN: 10 (zodiak1)
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
Copy Paste
Top
```



```
Switch#show vlan
```

VLAN Name	Status	Ports
1 default	active	Fa0/6, 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	Fa0/4
20 zodiak2	active	Fa0/2
30 zodiak3	active	Fa0/3, Fa0/5
1002 fddi-default	active	
1003 token-ring-default	active	
1004 fddinet-default	active	
1005 trnet-default	active	

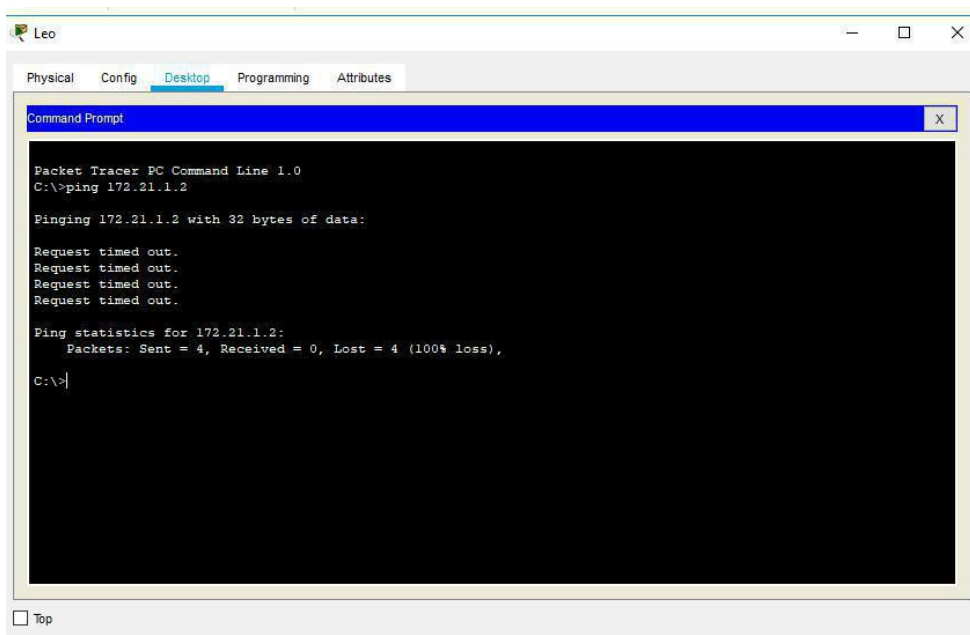
VLAN	Type	SAID	MTU	Parent	RingNo	BridgeNo	Stp	BrdgMode	Trans1	Trans2
1	enet	100001	1500	-	-	-	-	-	0	0
10	enet	100010	1500	-	-	-	-	-	0	0
20	enet	100020	1500	-	-	-	-	-	0	0
30	enet	100030	1500	-	-	-	-	-	0	0

--More--

**Tugas 7A :** Jelaskan secara singkat hasil yang anda peroleh dari langkah 7.

- Mengaktifkan switch port Fa0/1(port yang digunakan untuk trunk),  
Administrative mode menjadi trunk dan juga Operational Mode trunk.

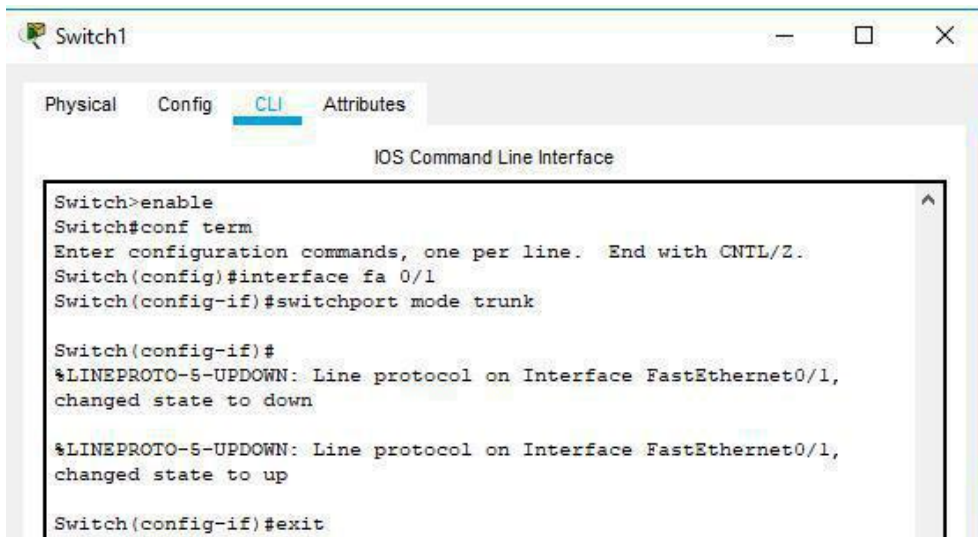
H. Lakukan ping dari PC leo ke PC Pisces



**Tugas 8A :** Jelaskan secara singkat mengapa hasil yang anda peroleh dari langkah 8 mendapatkan status “RTO”?

- Ping dari PC leo ke PC Pisces mendapatkan status RTO atau Request Time Out karena keduanya berada pada jaringan yang berbeda dan dalam kondisi VLAN keduanya berada dalam VLAN yang berbeda(VLAN zodiak1 dan VLAN zodiak2)

- I. Lakukan konfigurasi VLAN trunking pada switch 2 seperti langkah 6



```
Switch1
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)#interface fa 0/1
Switch(config-if)#switchport mode trunk

Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1,
changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1,
changed state to up

Switch(config-if)#exit
```

- J. Pada mode user atau mode privileged, lihat konfigurasi VLAN pada switch 2

```
Switch#show vlan

VLAN Name                Status    Ports
-----
1    default                active    Fa0/2, Fa0/3, Fa0/4, Fa0/5
                                           Fa0/6, 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

1002 fddi-default        active
1003 token-ring-default   active
1004 fddinet-default      active
1005 trnet-default        active

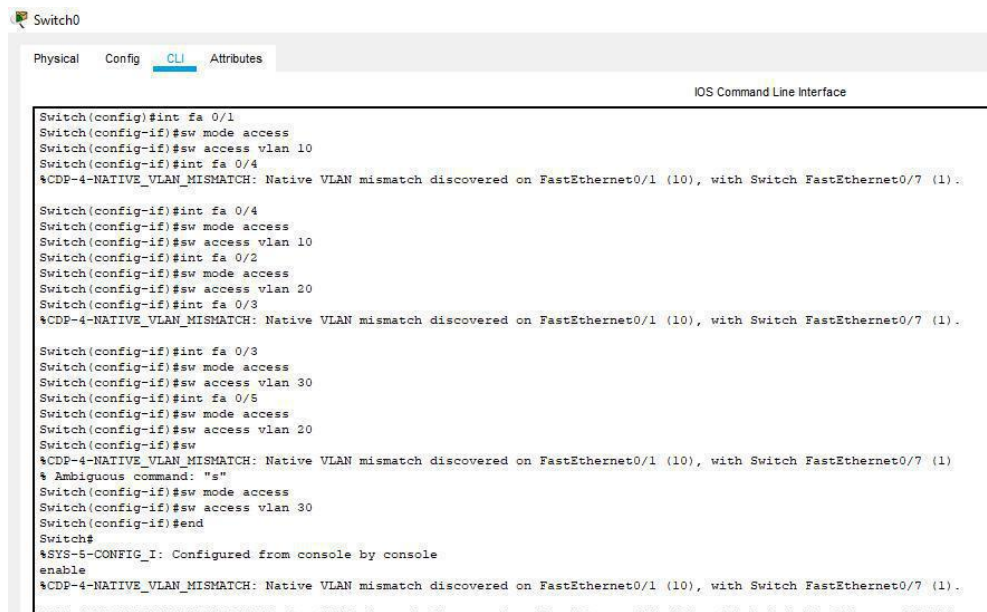
VLAN Type  SAID      MTU    Parent RingNo BridgeNo Stp    BrgdMode Trans1 Trans2
-----
1    enet    1000001   1500    -      -      -      -      -      0      0
1002 fddi    1010002   1500    -      -      -      -      -      0      0
1003 tr      1010003   1500    -      -      -      -      -      0      0
1004 fdnet   1010004   1500    -      -      -      -      -      0      0
1005 trnet   1010005   1500    -      -      -      -      -      0      0

--More--
```

**Tugas 10A :** Jelaskan secara singkat hasil yang anda peroleh dari langkah 10.

- Dapat disimpulkan bahwa pada konfigurasi trunking sudah dilakukan dan dalam switch menunjukkan konfigurasi trunking sudah berjalan. Port yang telah didaftarkan dalam trunking memiliki kapasitas untuk memanager beberapa hal yang berkaitan dengan domain(1, 10, 20, 30).

- K. Pada mode configuration, konfigurasi port-port switch ke dalam VLAN zodiak1, zodiak2, dan zodiak3.



```
Switch0
Physical Config CLI Attributes
IOS Command Line Interface

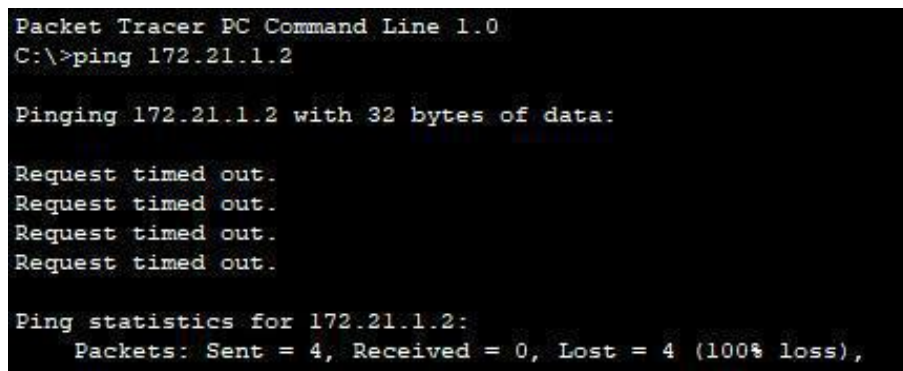
Switch(config)#int fa 0/1
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 10
Switch(config-if)#int fa 0/4
%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on FastEthernet0/1 (10), with Switch FastEthernet0/7 (1).

Switch(config-if)#int fa 0/4
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 10
Switch(config-if)#int fa 0/2
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 20
Switch(config-if)#int fa 0/3
%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on FastEthernet0/1 (10), with Switch FastEthernet0/7 (1).

Switch(config-if)#int fa 0/3
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 30
Switch(config-if)#int fa 0/5
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 20
Switch(config-if)#sw
%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on FastEthernet0/1 (10), with Switch FastEthernet0/7 (1)
% Ambiguous command: "s"
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 30
Switch(config-if)#end
Switch#
$SYS-5-CONFIG_I: Configured from console by console
enable
%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on FastEthernet0/1 (10), with Switch FastEthernet0/7 (1).
```

- L. Lakukan ping dari:

- Leo ke Aries



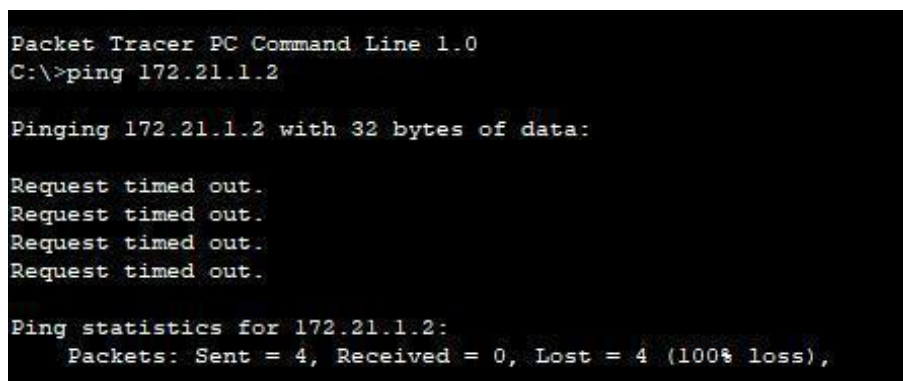
```
Packet Tracer PC Command Line 1.0
C:\>ping 172.21.1.2

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),
```

- Leo ke Aquarius



```
Packet Tracer PC Command Line 1.0
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),
```

➤ 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),
```

➤ 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),
```

➤ Libra ke Leo

```
C:\>ping 172.21.1.1

Pinging 172.21.1.1 with 32 bytes of data:

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

Ping statistics for 172.21.1.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

**Tugas 12A :** Jelaskan secara singkat hasil yang anda peroleh dari langkah 8.

- Dari langkah 8 dapat disimpulkan bahwa seluruh device yang sudah dikonfigurasi hasil dari pengujian koneksi(ping) menunjukkan bahwa device yang dalam jaringan yang sama namun memiliki perbedaan VLAN menunjukkan hasil RTO, dalam network yang sama namun dalam VLAN yang berbeda juga menunjukkan hasil RTO.
- Untuk hasil pengujian koneksi(ping) yang reply hanyalah dalam device dengan spesifikasi jaringan yang sama dan dalam VLAN yang sama.

Perlu adanya konfigurasi gateway dalam switch agar dalam setiap device dapat terkoneksi satu dengan yang lain.