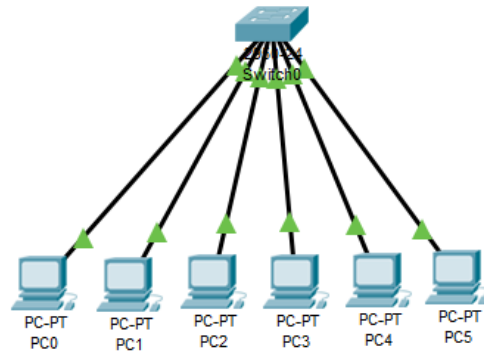


NAMA : BERLIAN VIDIA PUSPA
NIM : L200180107
KELAS : C

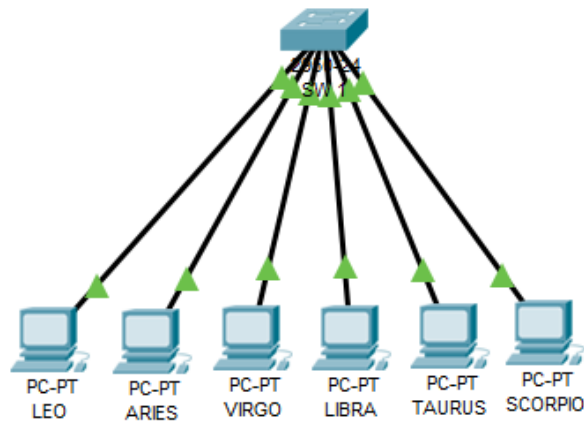
MODUL 4

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 LEO network configuration window with the 'Desktop' tab selected. The configuration is as follows:

Category	Option	Value
DHCP/Static	<input type="radio"/> DHCP	
	<input checked="" type="radio"/> Static	
	IP Address	172.21.1.1
	Subnet Mask	255.255.0.0
	Default Gateway	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::250:FFF:FE7E:923B
802.1X	<input type="checkbox"/> Use 802.1X Security	
	Authentication	MD5
	Username	
	Password	

Top

➤ Aries = 172.21.1.2/24

The screenshot shows the ARIES network configuration window with the 'Desktop' tab selected. The configuration is as follows:

Category	Option	Value
DHCP/Static	<input type="radio"/> DHCP	
	<input checked="" type="radio"/> Static	
	IP Address	172.21.1.2
	Subnet Mask	255.255.0.0
	Default Gateway	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::2D0:BAFF:FE4B:327C
802.1X	<input type="checkbox"/> Use 802.1X Security	
	Authentication	MD5
	Username	
	Password	

Top

➤ Virgo = 172.21.1.3/24

The screenshot shows the VIRGO network configuration window with the 'Desktop' tab selected. The configuration is as follows:

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 Configuration	
DHCP	<input type="radio"/>
Auto Config	<input type="radio"/>
Static	<input checked="" type="radio"/>
IPv6 Address	
Link Local Address	FE80::20A:F3FF:FE52:832A
IPv6 Gateway	
IPv6 DNS Server	
802.1X	
Use 802.1X Security	<input type="checkbox"/>
Authentication	MDS
Username	
Password	

➤ Libra = 172.21.1.4/24

The screenshot shows the LIBRA network configuration window with the 'Desktop' tab selected. The configuration is as follows:

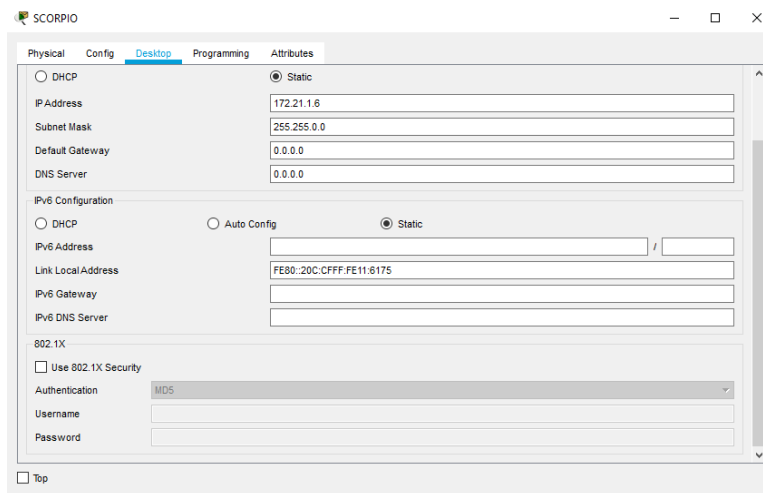
Field	Value
IP Address	172.21.1.4
Subnet Mask	255.255.0.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0
IPv6 Configuration	
DHCP	<input type="radio"/>
Auto Config	<input type="radio"/>
Static	<input checked="" type="radio"/>
IPv6 Address	
Link Local Address	FE80::210:11FF:FE14:BE8E
IPv6 Gateway	
IPv6 DNS Server	
802.1X	
Use 802.1X Security	<input type="checkbox"/>
Authentication	MDS
Username	
Password	

➤ Taurus = 172.21.1.5/24

The screenshot shows the TAURUS network configuration window with the 'Desktop' tab selected. The configuration is as follows:

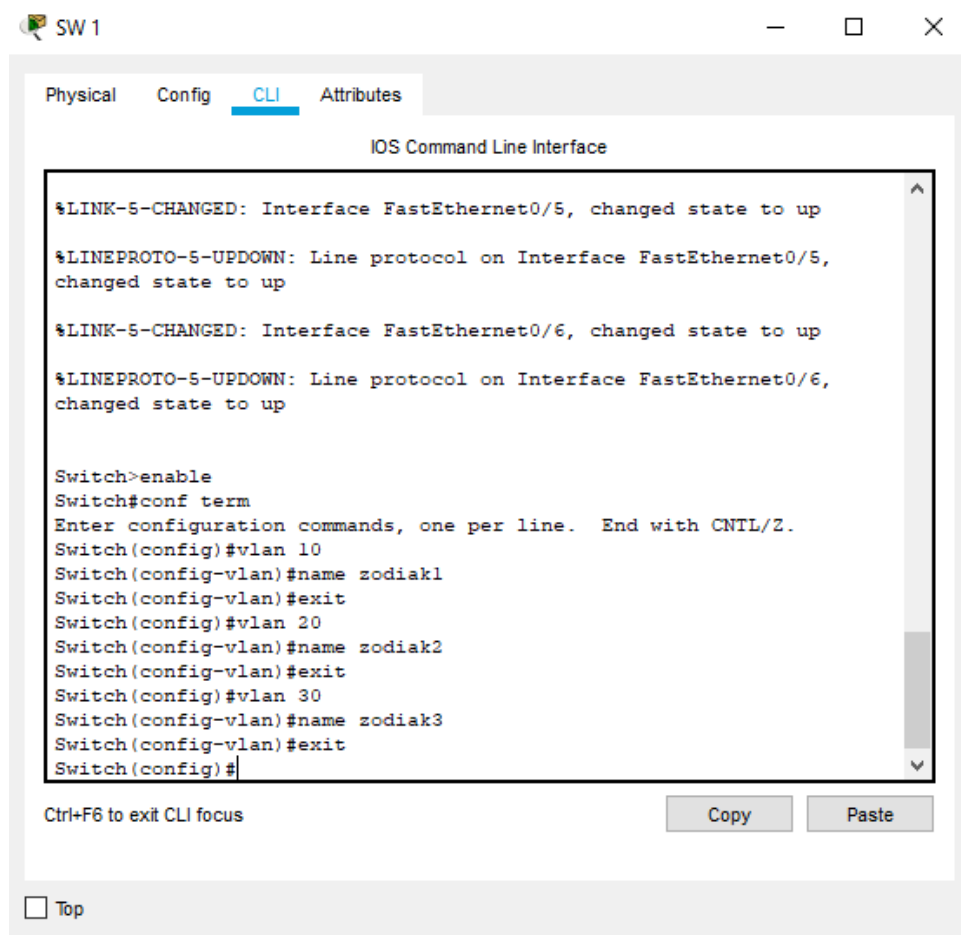
Field	Value
IP Address	172.21.1.5
Subnet Mask	255.255.0.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0
IPv6 Configuration	
DHCP	<input type="radio"/>
Auto Config	<input type="radio"/>
Static	<input checked="" type="radio"/>
IPv6 Address	
Link Local Address	FE80::2E0:A3FF:FED0:C712
IPv6 Gateway	
IPv6 DNS Server	
802.1X	
Use 802.1X Security	<input type="checkbox"/>
Authentication	MDS
Username	
Password	

➤ Scorpio = 172.21.1.6/24



The screenshot 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 172.21.1.6, 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. The IPv6 Address field is empty, Link Local Address is FE80::20C:CFFF:FE11:6175, and both IPv6 Gateway and IPv6 DNS Server fields are empty. 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.

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



The screenshot shows the SW 1 configuration window with the 'CLI' tab selected. The 'IOS Command Line Interface' section displays the following text:

```
%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)#
```

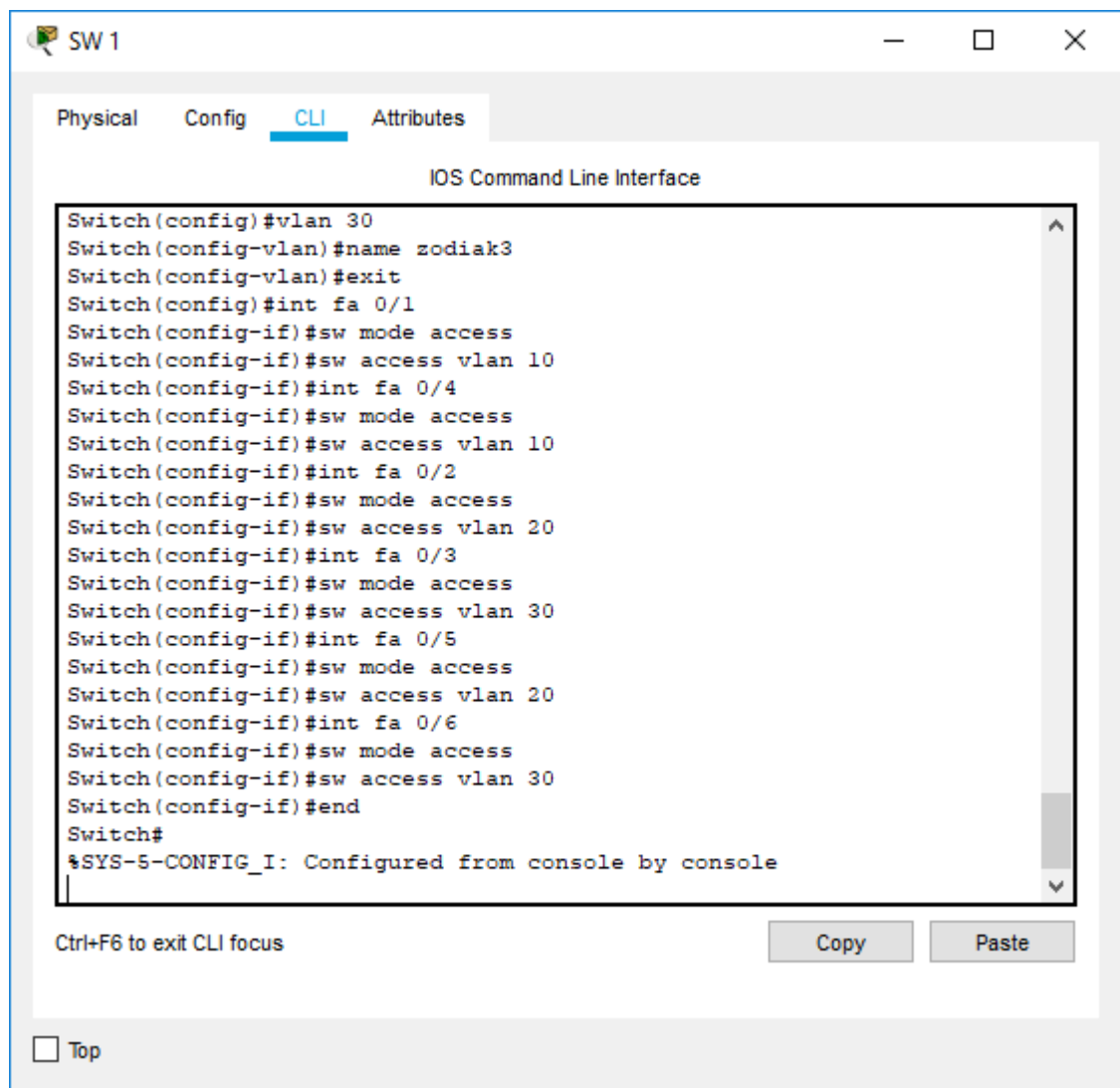
Below the CLI window, there is a 'Ctrl+F6 to exit CLI focus' message and 'Copy' and 'Paste' buttons. A 'Top' button is at the bottom left.

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

Zodiak 1 = leo dan libra

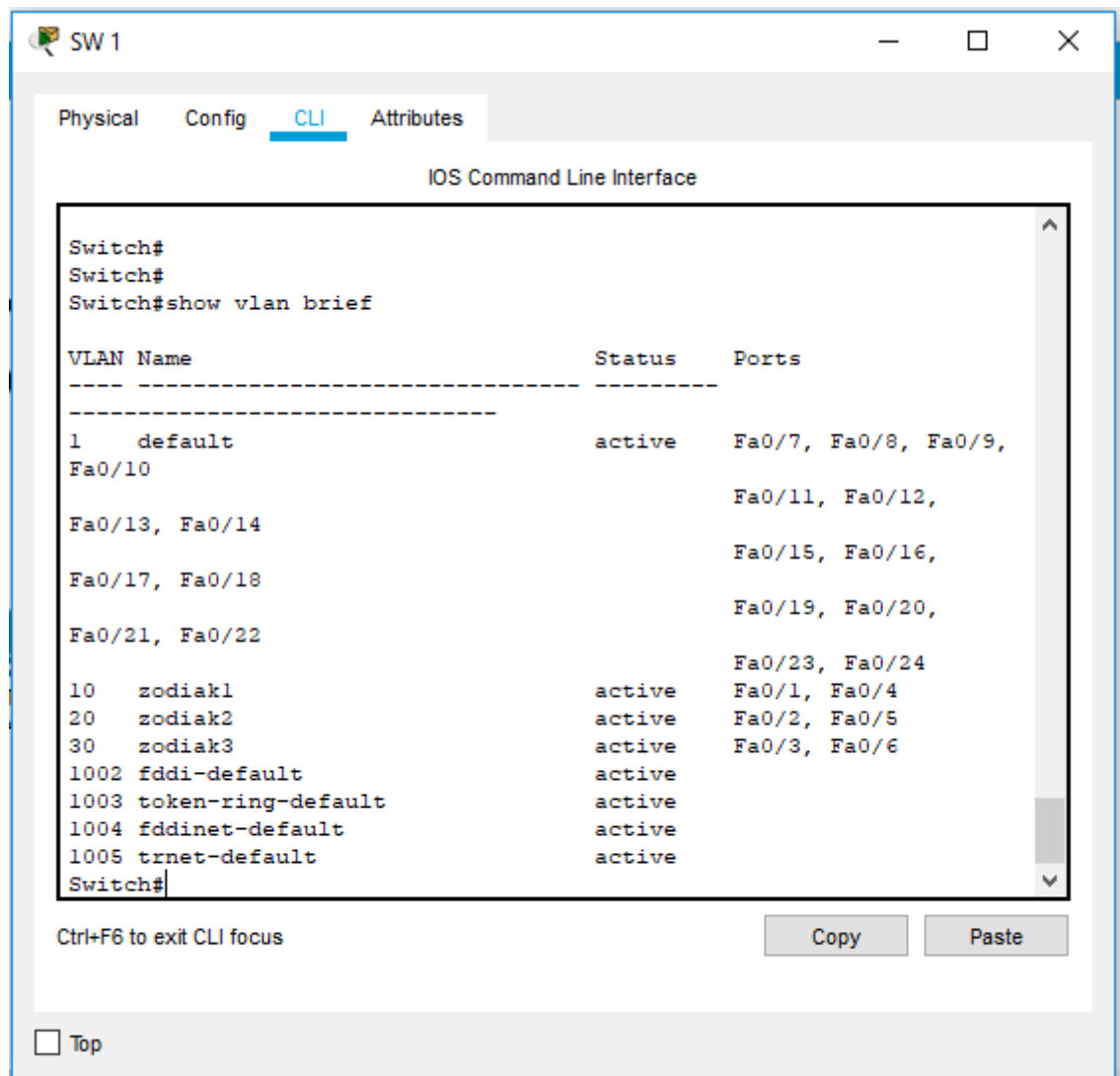
Zodiak 2 = aries dan taurus

Zodiak 3 = virgo dan scorpio



```
SW 1
Physical Config CLI Attributes
IOS Command Line Interface
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)#int fa 0/6
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
Ctrl+F6 to exit CLI focus
Copy Paste
Top
```

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



➤ Informasi VLAN 10

The screenshot shows a network switch configuration window titled 'SW 1'. The 'CLI' tab is selected, displaying the 'IOS Command Line Interface'. The command 'Switch#show vlan id 10' has been entered, resulting in two output sections. The first section lists the ports assigned to VLAN 10: Fa0/21, Fa0/22, Fa0/19, Fa0/20, Fa0/23, Fa0/24, Fa0/1, Fa0/4, Fa0/2, Fa0/5, Fa0/3, and Fa0/6. The second section shows the status of VLAN 10, which is 'active', and lists the ports Fa0/1 and Fa0/4. Below this, a table provides detailed information about VLAN 10, including its type (enet), SAID (100010), MTU (1500), and other parameters.

```

Fa0/21, Fa0/22
10   zodiak1      active
20   zodiak2      active
30   zodiak3      active
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    100010   1500   -     -     -     -     -     0
0
Switch#
  
```

Ctrl+F6 to exit CLI focus

Copy Paste

☐ Top

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

The screenshot shows a network switch configuration window titled "SW 1". It has tabs for "Physical", "Config", "CLI", and "Attributes". The "CLI" tab is active, displaying the "IOS Command Line Interface".

The CLI shows the configuration for VLAN 10 (zodiak1) and VLAN 20 (zodiak2). The output of the command "Switch#show vlan id 20" is displayed, showing the following details:

VLAN Name	Status	Ports
20 zodiak2	active	Fa0/2, Fa0/5

Below the table, the command "Switch#show vlan id 20" is entered, and the output is displayed. The output shows the VLAN configuration for VLAN 20, including the VLAN name, status, and ports. The output is as follows:

```

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#
  
```

At the bottom of the CLI window, there is a "Ctrl+F6 to exit CLI focus" message and "Copy" and "Paste" buttons. A "Top" button is also visible at the bottom left of the window.

No	Variabel	Nilai
1.	Nomor VLAN	20
2.	Nama VLAN	Zodiak2
3.	Port	Fa0/2, Fa0/5
4.	Status	Active

➤ Informasi VLAN 30

SW 1

Physical
Config
CLI
Attributes

IOS Command Line Interface

```

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#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#

```

Ctrl+F6 to exit CLI focus
Copy
Paste

☐ Top

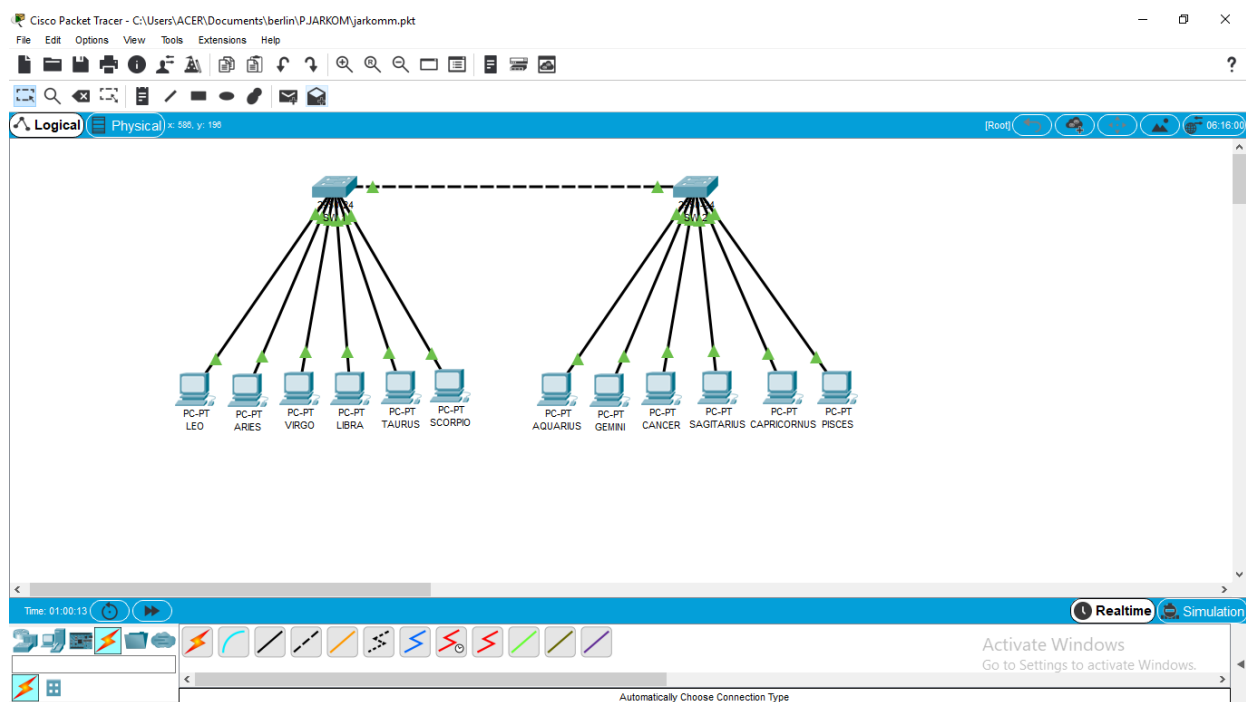
No	Variabel	Nilai
1.	Nomor VLAN	30
2.	Nama VLAN	Zodiak3
3.	Port	Fa0/3, Fa0/6
4.	Status	Active

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

- Fa0/1 (Leo) dan Fa0/4 (Libra) berada pada VLAN yang sama yaitu zodiak 1. Dengan nomer VLAN 10 berstatus active
- Fa0/2 (Aries) dan Fa0/5(Taurus) berada pada VLAN 20, zodiak 2, dan berstatus active
- Fa0/3 (Virgo) dan Fa0/6(Scorpio) berada pada VLAN 30, zodiak 3, dan berstatus active
- Port yang terdaftar dalam VLAN sesuai dengan konfigurasi yang telah dilakukan sebelumnya.

KEGIATAN 2. TOPOLOGI 2

Menggunakan packet tracker buat topologi berikut ini dengan menggunakan switch catalystr2950. 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. 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.



A. 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 window has four tabs: 'Physical', 'Config', 'Desktop', and 'Attributes'. The 'Config' tab is selected. Under the 'Config' tab, there are two main sections: 'IP Configuration' and '802.1X'. In the 'IP Configuration' section, the 'Static' radio button is selected. The 'IP Address' field is set to '172.21.1.1', the 'Subnet Mask' is '255.255.0.0', the 'Default Gateway' is '0.0.0.0', and the 'DNS Server' is '0.0.0.0'. In the 'IPv6 Configuration' section, the 'Static' radio button is also selected. The 'IPv6 Address' field is empty, the 'Link Local Address' is 'FE80::260:3EFF:FE8B:723B', the 'IPv6 Gateway' is empty, and the 'IPv6 DNS Server' is empty. In the '802.1X' section, the 'Use 802.1X Security' checkbox is unchecked. The 'Authentication' dropdown menu is set to 'MD5'. The 'Username' and 'Password' fields are empty. A 'Top' button is located at the bottom left of the window.

Field	Value
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 Address	
Link Local Address	FE80::260:3EFF:FE8B:723B
IPv6 Gateway	
IPv6 DNS Server	
Use 802.1X Security	<input type="checkbox"/>
Authentication	MD5
Username	
Password	

➤ 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 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. Under 'IPv6 Configuration', the 'Static' radio button is also selected, with an empty IPv6 Address field, a Link Local Address of FE80::260:2FFF:FEA6:6632, and empty fields for IPv6 Gateway and IPv6 DNS Server. The '802.1X' section has 'Use 802.1X Security' unchecked, 'Authentication' set to MDS, and empty fields for Username and Password. 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	
Use 802.1X Security	<input type="checkbox"/>
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 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. Under 'IPv6 Configuration', the 'Static' radio button is also selected, with an empty IPv6 Address field, a Link Local Address of FE80::260:2FFF:FE4C:938B, and empty fields for IPv6 Gateway and IPv6 DNS Server. The '802.1X' section has 'Use 802.1X Security' unchecked, 'Authentication' set to MDS, and empty fields for Username and Password. 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	
Use 802.1X Security	<input type="checkbox"/>
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 and a Link Local Address of FE80::201:C9FF:FE7A:8750. 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.

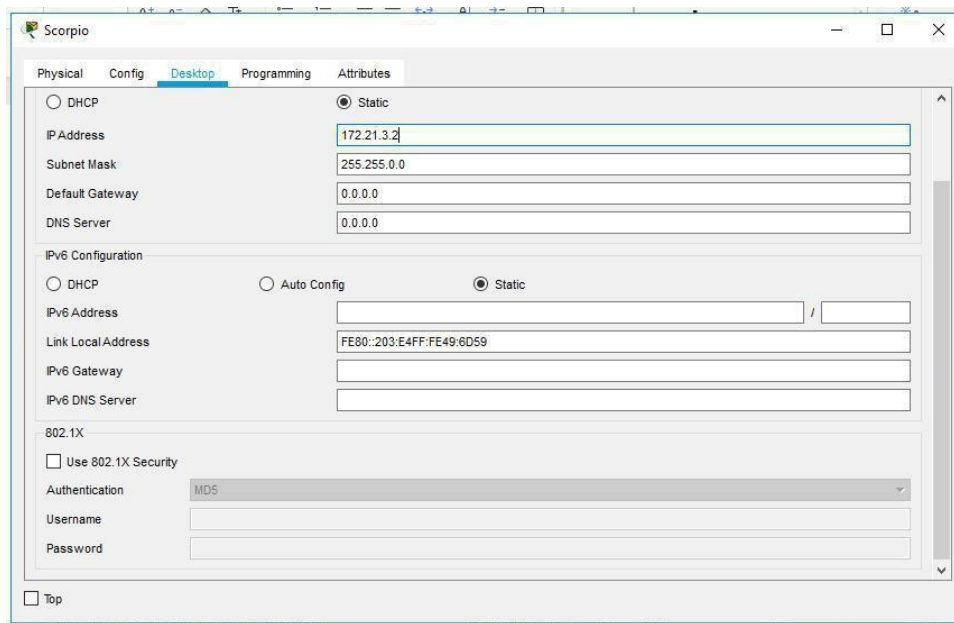
Field	Value
IP Address	172.21.2.2
Subnet Mask	255.255.0.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0
IPv6 Address	
Link Local Address	FE80::201:C9FF:FE7A:8750
IPv6 Gateway	
IPv6 DNS Server	
Use 802.1X Security	<input type="checkbox"/>
Authentication	MD5
Username	
Password	

➤ 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 and a Link Local Address of FE80::201:42FF:FE5E:C1C4. 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	

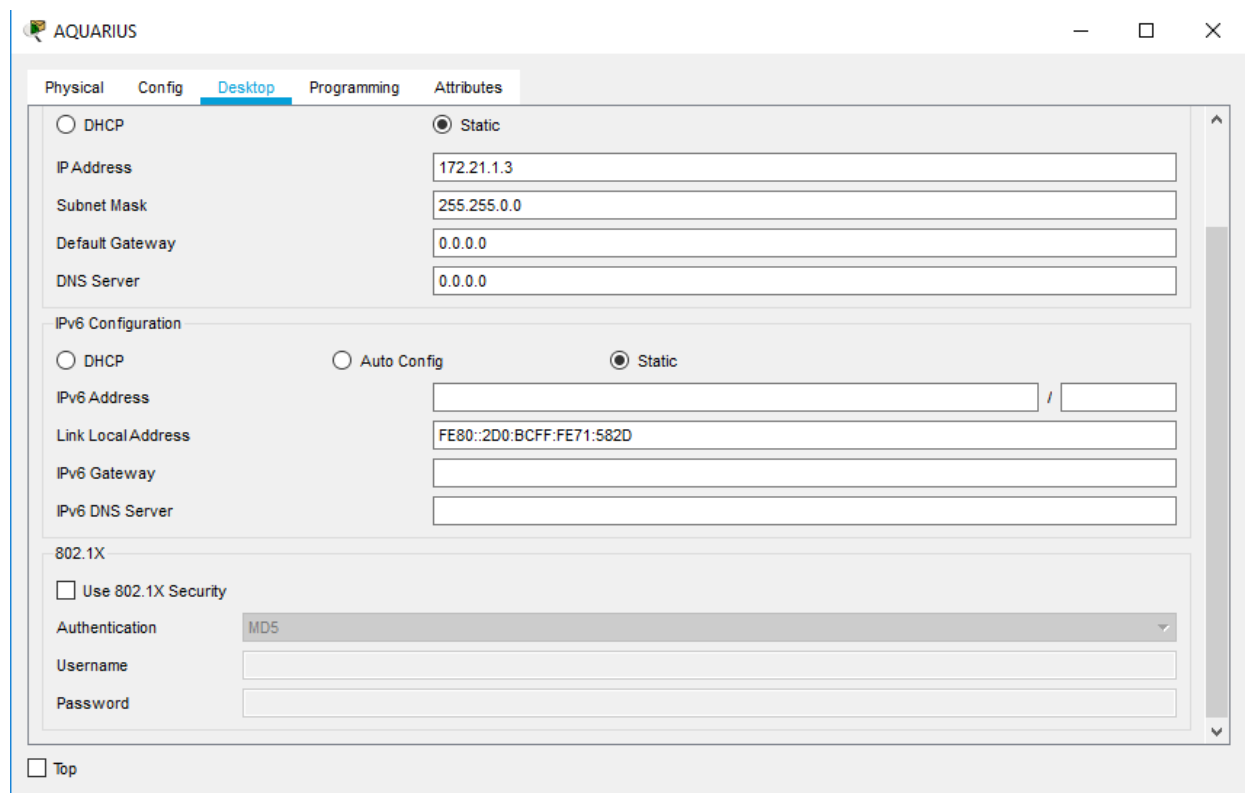
➤ Scorpio = 172.21.3.2/24



The image shows the 'Scorpio' configuration window with the 'Desktop' tab selected. The 'Static' radio button is chosen for the IP configuration. The IP Address field 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. The IPv6 Configuration section has 'Static' selected, with IPv6 Address, Link Local Address (FE80::203:E4FF:FE49:8D59), 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	172.21.3.2
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:FE49:8D59
IPv6 Gateway	
IPv6 DNS Server	
Use 802.1X Security	<input type="checkbox"/>
Authentication	MD5
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 the IP configuration. The IP Address field 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 has 'Static' selected, with IPv6 Address, Link Local Address (FE80::2D0:BCFF:FE71:582D), 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	172.21.1.3
Subnet Mask	255.255.0.0
Default Gateway	0.0.0.0
DNS Server	0.0.0.0
IPv6 Address	
Link Local Address	FE80::2D0:BCFF:FE71:582D
IPv6 Gateway	
IPv6 DNS Server	
Use 802.1X Security	<input type="checkbox"/>
Authentication	MD5
Username	
Password	

➤ Gemini = 172.21.1.4/24

The screenshot shows the 'GEMINI' network configuration window. It has four tabs: 'Physical', 'Config', 'Desktop' (which is selected), and 'Attributes'. Under the 'Desktop' tab, there are three main sections: 'DHCP/Static IP Configuration', 'IPv6 Configuration', and '802.1X Security'. In the first section, 'Static' is selected, and the IP Address is set to '172.21.1.4'. In the second section, 'Static' is also selected, and the Link Local Address is 'FE80::250:FFF:FE29:6AAD'. The third section has 'Use 802.1X Security' unchecked. At the bottom left, there is a 'Top' button.

Section	Option	Value
DHCP/Static IP Configuration	<input type="radio"/> DHCP	
	<input checked="" type="radio"/> Static	
	IP Address	172.21.1.4
	Subnet Mask	255.255.0.0
	Default Gateway	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::250:FFF:FE29:6AAD
802.1X Security	<input type="checkbox"/> Use 802.1X Security	
	Authentication	MD5
	Username	
	Password	

☐ Top

➤ Cancer = 172.21.2.3/24

The screenshot shows the 'CANCER' network configuration window, which has the same layout as the GEMINI window. Under the 'Desktop' tab, the 'Static' option is selected for both the main IP configuration and the IPv6 configuration. The IP Address is set to '172.21.2.3', and the Link Local Address is 'FE80::2D0:97FF:FE17:51EC'. The '802.1X Security' section is also identical to the GEMINI window. A 'Top' button is located at the bottom left.

Section	Option	Value
DHCP/Static IP Configuration	<input type="radio"/> DHCP	
	<input checked="" type="radio"/> Static	
	IP Address	172.21.2.3
	Subnet Mask	255.255.0.0
	Default Gateway	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::2D0:97FF:FE17:51EC
802.1X Security	<input type="checkbox"/> Use 802.1X Security	
	Authentication	MD5
	Username	
	Password	

☐ Top

➤ Sagitarius = 172.21.2.4/24

The screenshot shows the SAGITARIUS configuration window with the 'Desktop' tab selected. The window has a title bar with the name 'SAGITARIUS' and standard window controls. The main content area is divided into sections for Physical, Config, Desktop, Programming, and Attributes. The 'Desktop' section is active and contains the following fields:

- IP Configuration:** Radio buttons for DHCP (unselected) and Static (selected).
 - 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 Configuration:** Radio buttons for DHCP (unselected), Auto Config (unselected), and Static (selected).
 - IPv6 Address: (empty field) / (empty field)
 - Link Local Address: FE80::200:CFF:FEC0:C702
 - IPv6 Gateway: (empty field)
 - IPv6 DNS Server: (empty field)
- 802.1X:** A checkbox for 'Use 802.1X Security' is unchecked. Below it is a dropdown menu for 'Authentication' set to 'MD5', and two empty text fields for 'Username' and 'Password'.

At the bottom left of the window, there is a 'Top' button.

➤ Carpiconus = 172.21.3.3/24

The screenshot shows the CAPRICORNUS configuration window with the 'Desktop' tab selected. The window has a title bar with the name 'CAPRICORNUS' and standard window controls. The main content area is divided into sections for Physical, Config, Desktop, Programming, and Attributes. The 'Desktop' section is active and contains the following fields:

- IP Configuration:** Radio buttons for DHCP (unselected) and Static (selected).
 - 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 Configuration:** Radio buttons for DHCP (unselected), Auto Config (unselected), and Static (selected).
 - IPv6 Address: (empty field) / (empty field)
 - Link Local Address: FE80::260:3EFF:FEEE:DA6
 - IPv6 Gateway: (empty field)
 - IPv6 DNS Server: (empty field)
- 802.1X:** A checkbox for 'Use 802.1X Security' is unchecked. Below it is a dropdown menu for 'Authentication' set to 'MD5', and two empty text fields for 'Username' and 'Password'.

At the bottom left of the window, there is a 'Top' button.

➤ Pisces = 172.21.3.4/24

The screenshot shows the 'PISCES' network configuration window. The 'Desktop' tab is selected. Under the 'Physical' section, the 'Static' radio button is chosen. 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. The 'IPv6 Configuration' section has the 'Static' radio button selected, with an IPv6 Address field containing a slash and a Link Local Address of FE80::2E0:F9FF:FE07:59B7. The '802.1X' section has 'Use 802.1X Security' unchecked, and the 'Authentication' dropdown is set to 'MD5'. There are fields for 'Username' and 'Password'. A 'Top' button is at the bottom left.

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

The screenshot shows the 'SW 1' network configuration window. The 'CLI' tab is selected. The 'IOS Command Line Interface' section displays a series of commands for configuring a switch. The commands are: enable, conf term, vlan 10 (named zodiak1), vlan 20 (named zodiak2), vlan 30 (named zodiak3), and then configuring three interfaces (fa 0/1, fa 0/2, fa 0/3) as access ports for VLANs 10, 20, and 30 respectively. The configuration ends with the 'end' command. A message at the bottom indicates the configuration was successful. There are 'Copy' and 'Paste' buttons at the bottom right, and a 'Top' button at the bottom left.

```
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 0/2
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 0/4
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 20
Switch(config-if)#int fa 0/5
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
```

C. Lakukan konfigurasi VLAN trunking pada switch 1

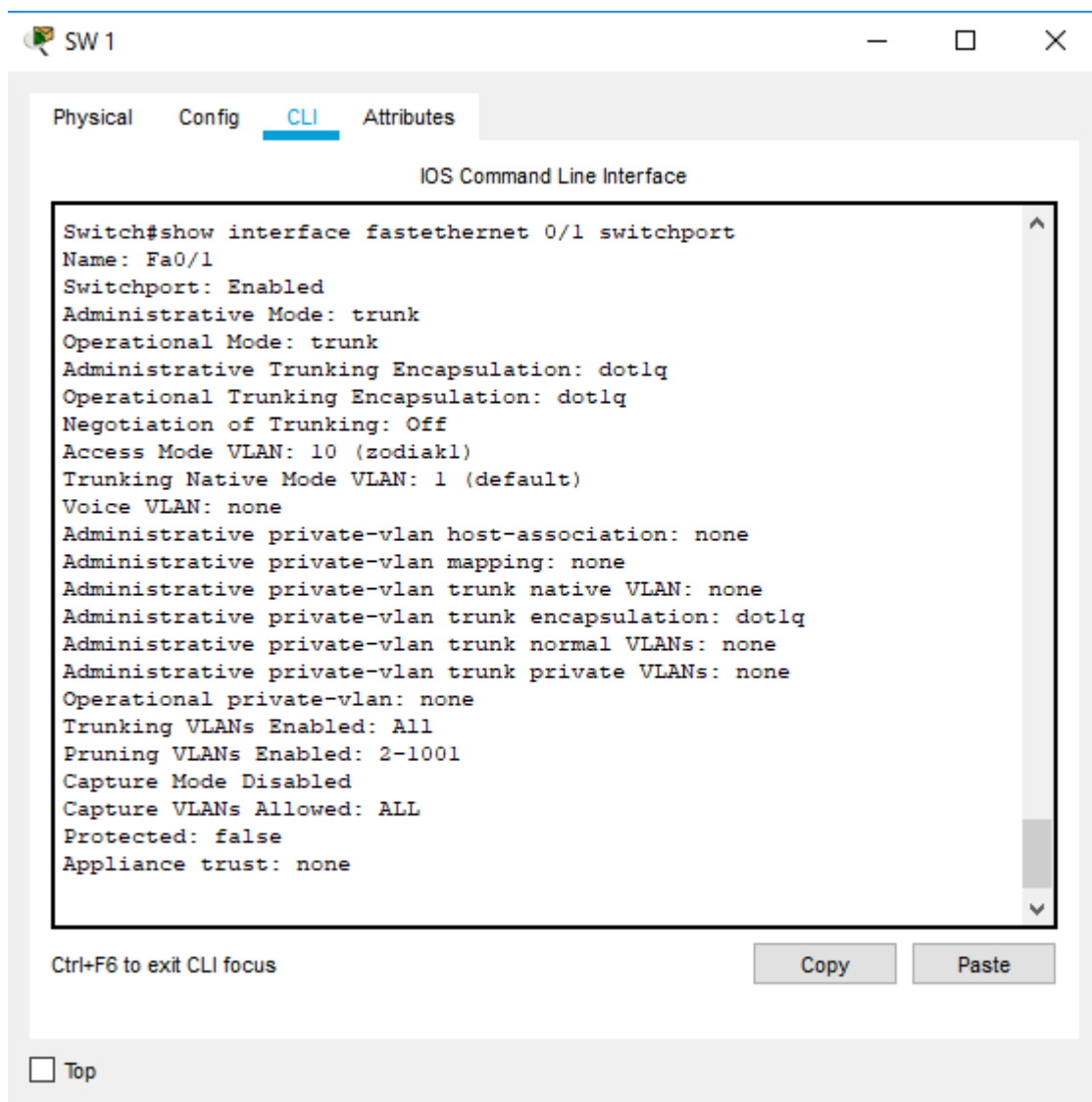
```
Switch#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#int fa 0/1
Switch(config-if)#sw mode trunk

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
Switch(config)#
```

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



IOS Command Line Interface

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
10	zodiak1	active	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	

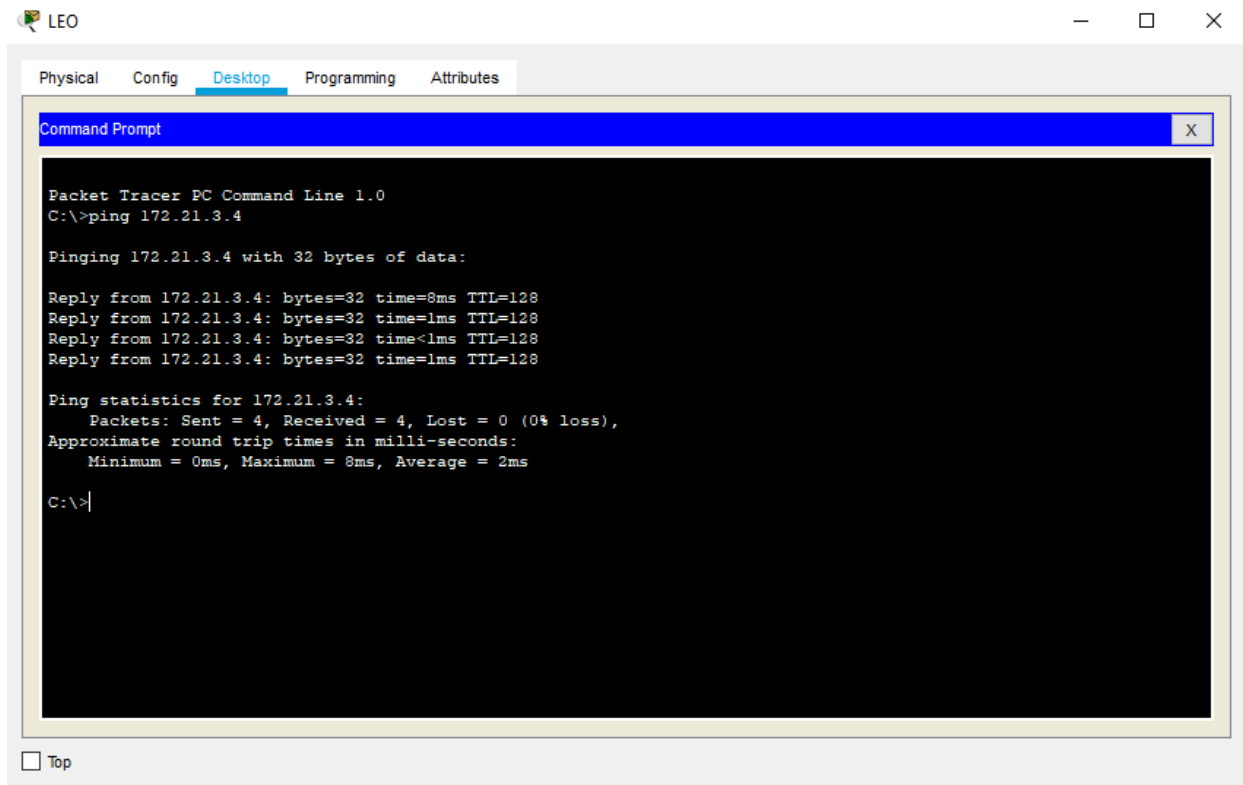
VLAN	Type	SAID	MTU	Parent	RingNo	BridgeNo	Stp	BrdgMode
1	enet	100001	1500	-	-	-	-	0
10	enet	100010	1500	-	-	-	-	0
20	enet	100020	1500	-	-	-	-	0
30	enet	100030	1500	-	-	-	-	0
1002	fddi	101002	1500	-	-	-	-	0
1003	tr	101003	1500	-	-	-	-	0
1004	fdnet	101004	1500	-	-	-	ieee	0

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.
- Saat kita mengetikan **show interface fastheternet 0/??**(?? nomer port trunking) akan muncul status switchport trunk pada interface:
 - Administrative Mode. Merupakan switchport default yaitu trunk
 - Administrative Trunking Encapsulation. Merupakan enkapsulasi default yaitu dot1q.
 - Trunking Native Mode VLAN. Native VLAN default menggunakan VLAN1.
 - Capture VLANs Allowed. Secara default, semua VLAN dibolehkan masuk ke trunk port.
- Saat kita mengetikan **show interface trunk** akan menampilkan status trunking dan semua VLAN dibolehkan masuk trunk.

- Saat kita mengetikkan *show vlan* berfungsi untuk mengecek status pada VLAN
- Lakukan ping dari PC leo ke PC pisces

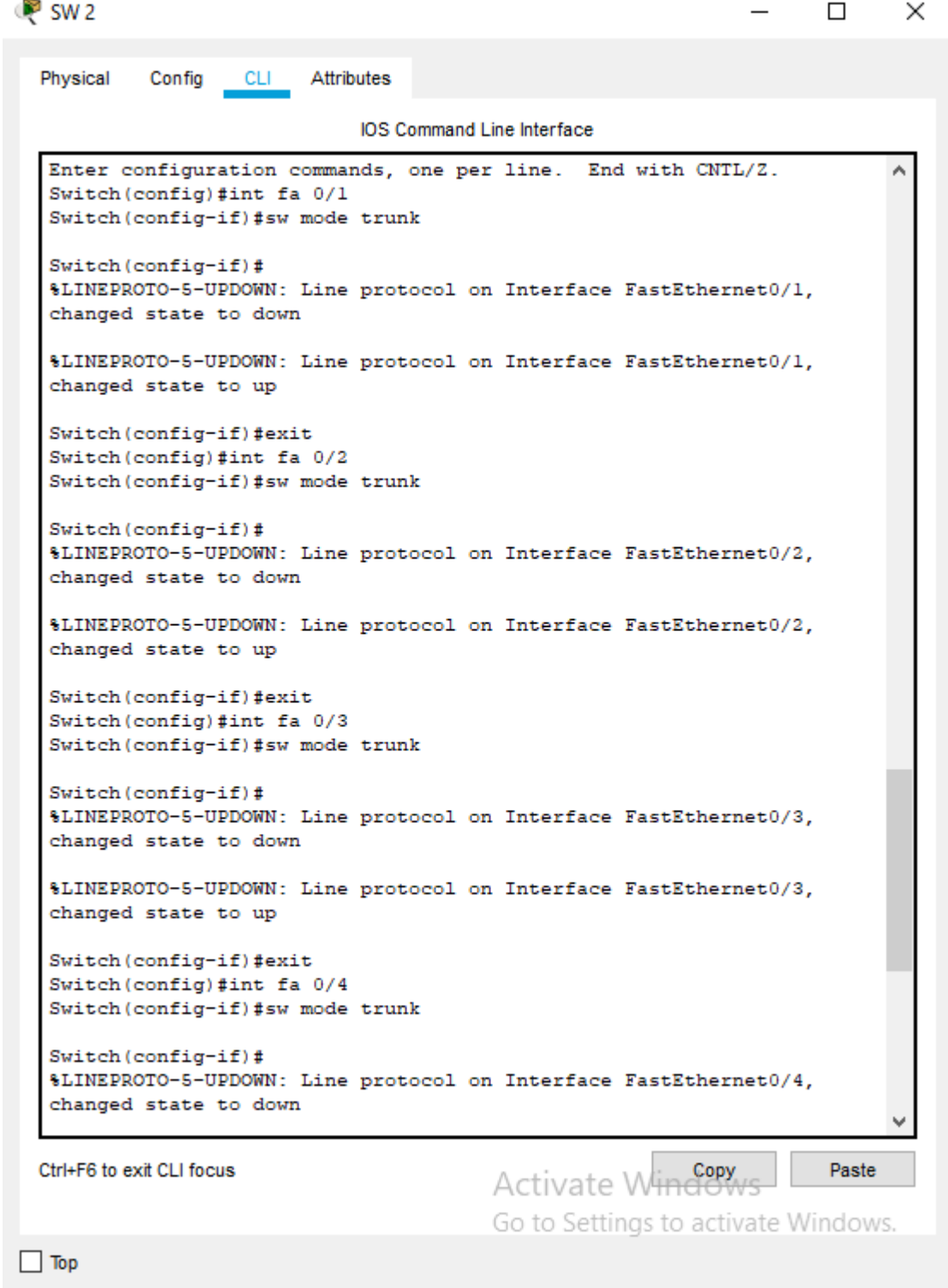
E. Lakukan ping dari PC leo ke PC Pisces



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

- Ping dari PC leo ke PC Pisces mendapatkan status Reply karena telah di trunking dan menyambungkan sesama VLAN ID

F. Lakukan konfigurasi VLAN trunking pada switch 2 seperti langkah 6



SW 2

Physical Config **CLI** Attributes

IOS Command Line Interface

```
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
Switch(config)#int fa 0/2
Switch(config-if)#sw mode trunk

Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2,
changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2,
changed state to up

Switch(config-if)#exit
Switch(config)#int fa 0/3
Switch(config-if)#sw mode trunk

Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3,
changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3,
changed state to up

Switch(config-if)#exit
Switch(config)#int fa 0/4
Switch(config-if)#sw mode trunk

Switch(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/4,
changed state to down
```

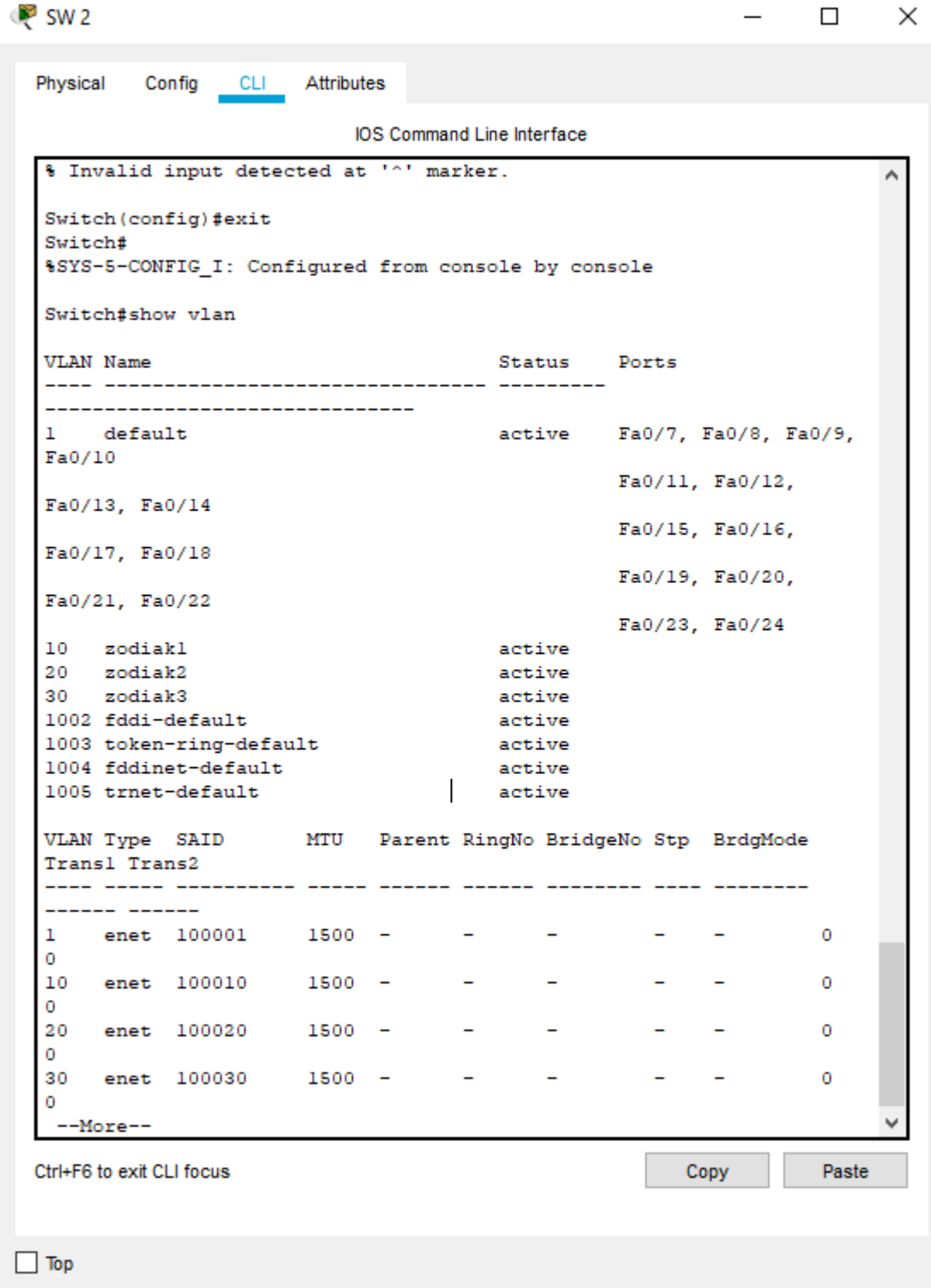
Ctrl+F6 to exit CLI focus

Copy Paste

Activate Windows
Go to Settings to activate Windows.

☐ Top

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



The screenshot shows a network switch CLI window titled "SW 2". The window has tabs for "Physical", "Config", "CLI", and "Attributes". The "CLI" tab is active, showing the "IOS Command Line Interface". The command history shows the user exiting configuration mode and running the "show vlan" command. The output displays a table of VLANs and their associated ports, followed by a detailed table of VLAN types and their configurations.

```
% Invalid input detected at '^' marker.

Switch(config)#exit
Switch#
%SYS-5-CONFIG_I: Configured from console by console

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
10   zodiak1                 active
20   zodiak2                 active
30   zodiak3                 active
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--
```

Ctrl+F6 to exit CLI focus

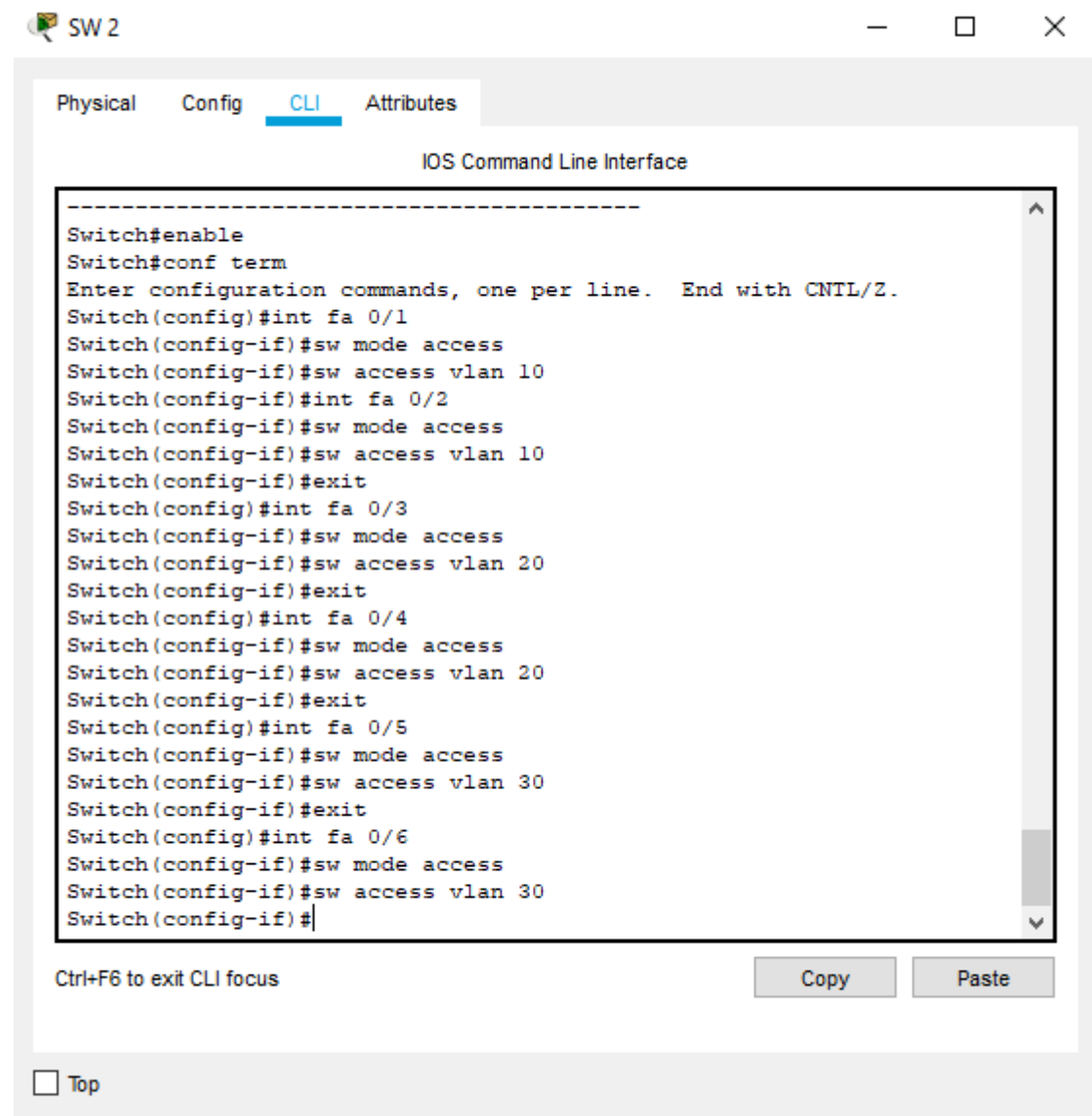
Copy Paste

Top

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 memanage beberapa hal yang berkaitan dengan domain(1, 10, 20, 30).

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



```
Switch#enable
Switch#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#int fa 0/1
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 10
Switch(config-if)#int fa 0/2
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 10
Switch(config-if)#exit
Switch(config)#int fa 0/3
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 20
Switch(config-if)#exit
Switch(config)#int fa 0/4
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 20
Switch(config-if)#exit
Switch(config)#int fa 0/5
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 30
Switch(config-if)#exit
Switch(config)#int fa 0/6
Switch(config-if)#sw mode access
Switch(config-if)#sw access vlan 30
Switch(config-if)#
```

Ctrl+F6 to exit CLI focus

Copy Paste

☐ Top

I. Lakukan ping dari:

➤ Leo ke Aries

LEO

Physical Config Desktop Programming Attributes

Command Prompt

```
Pinging 172.21.3.4 with 32 bytes of data:

Reply from 172.21.3.4: bytes=32 time=8ms TTL=128
Reply from 172.21.3.4: bytes=32 time=1ms TTL=128
Reply from 172.21.3.4: bytes=32 time<1ms TTL=128
Reply from 172.21.3.4: bytes=32 time=1ms TTL=128

Ping statistics for 172.21.3.4:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 8ms, Average = 2ms

C:\>ping 172.21.1.2

Pinging 172.21.1.2 with 32 bytes of data:

Reply from 172.21.1.2: bytes=32 time<1ms TTL=128
Reply from 172.21.1.2: bytes=32 time=1ms TTL=128
Reply from 172.21.1.2: bytes=32 time<1ms TTL=128
Reply from 172.21.1.2: bytes=32 time<1ms TTL=128

Ping statistics for 172.21.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>|
```

☐ Top

➤ Leo ke Aquarius

LEO

Physical Config Desktop Programming Attributes

Command Prompt

```
C:\>ping 172.21.1.2

Pinging 172.21.1.2 with 32 bytes of data:

Reply from 172.21.1.2: bytes=32 time<1ms TTL=128
Reply from 172.21.1.2: bytes=32 time=1ms TTL=128
Reply from 172.21.1.2: bytes=32 time<1ms TTL=128
Reply from 172.21.1.2: bytes=32 time<1ms TTL=128

Ping statistics for 172.21.1.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\>ping 172.21.1.3

Pinging 172.21.1.3 with 32 bytes of data:

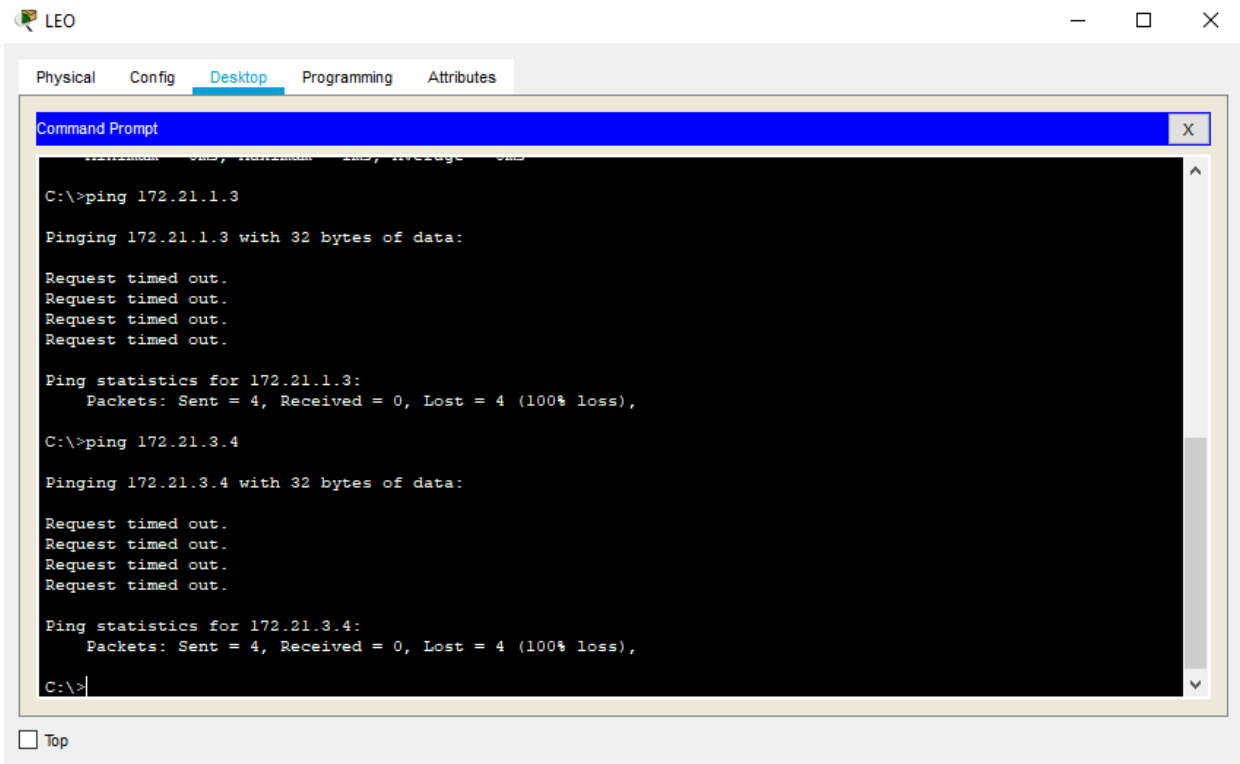
Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 172.21.1.3:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

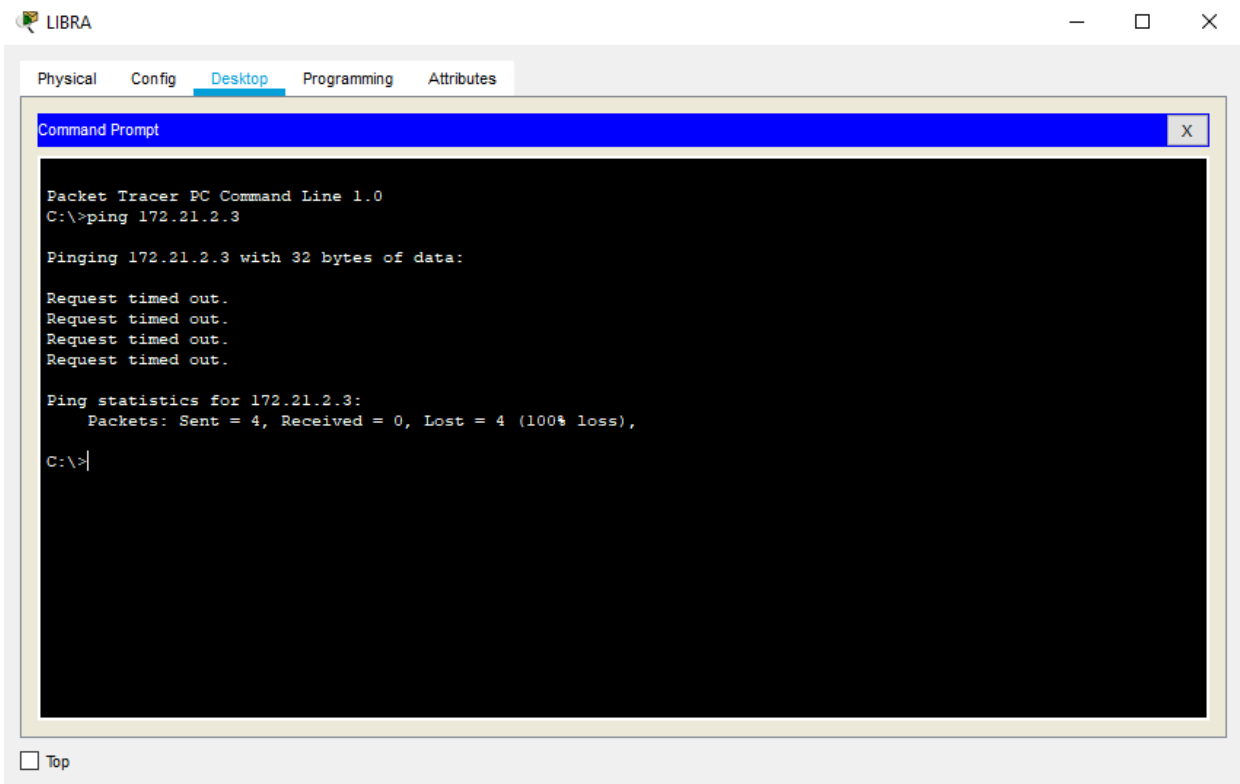
C:\>|
```

☐ Top

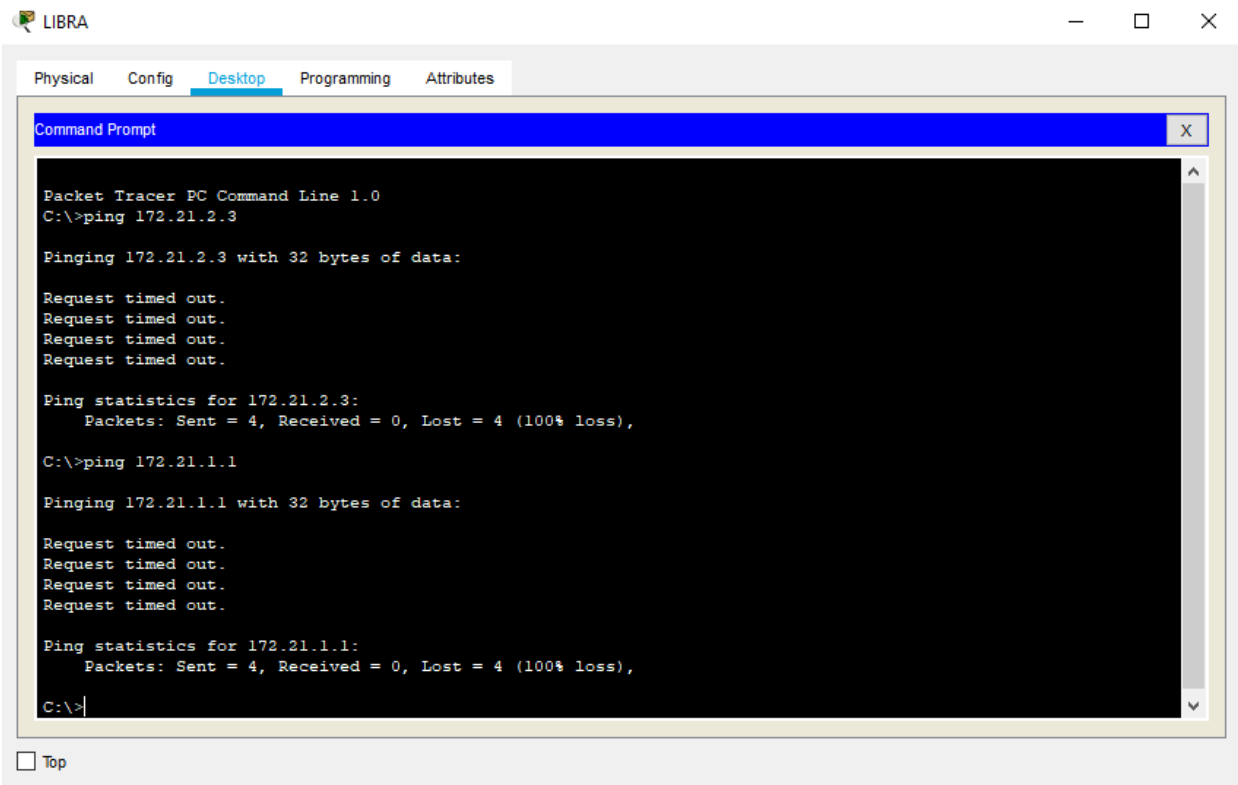
➤ Leo ke Pisces



➤ Libra ke Cancer



➤ Libra ke Leo



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.

