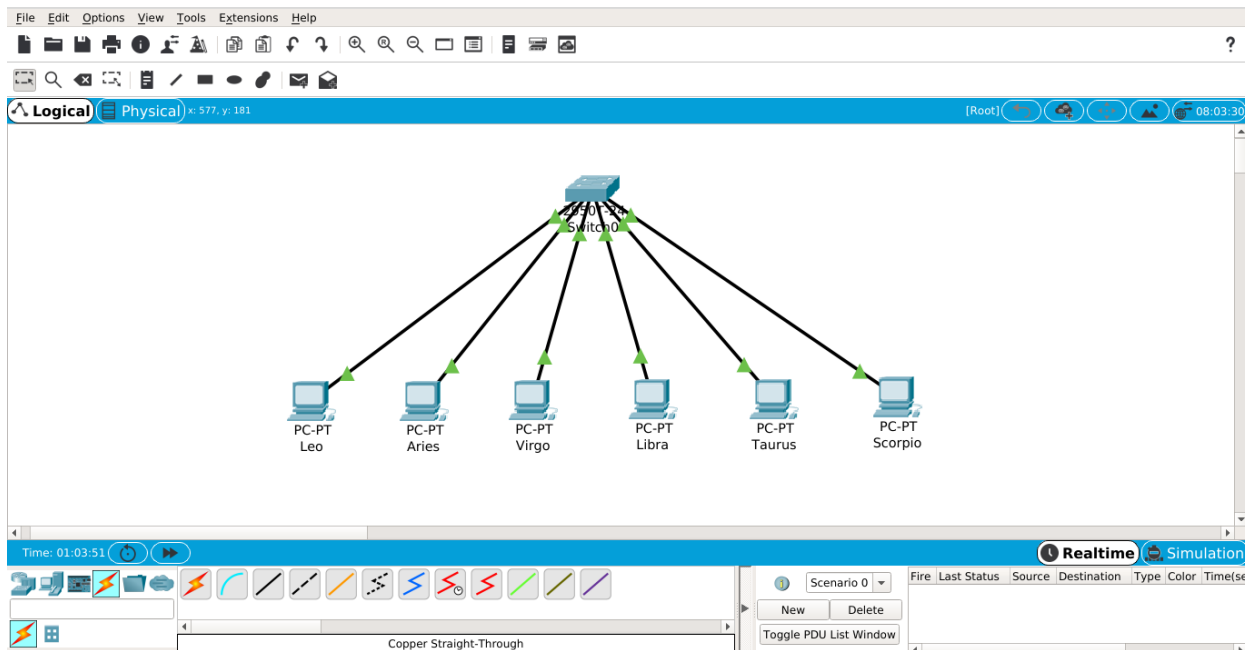


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Modul : 4 (Kegiatan Praktikum)

### Kegiatan 1

1. terdapat struktur jaringan terdiri 1 Switch dan 6 Workstation. Mempunyai masing-masing nama yaitu PC0(Leo), PC1(Aries), PC2(Virgo), PC3(Libra), PC4(Taurus), dan PC5(Scorpio).



2. Masing-masing PC memiliki konfigurasi IP Address sebagai berikut.

The screenshot shows the configuration window for a PC named 'Leo'. The 'Desktop' tab is selected, displaying network settings. The 'Static' radio button is chosen for the IP configuration. The fields are filled with the following values:

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

Below the IPv4 configuration, the 'IPv6 Configuration' section is visible, with the 'Static' radio button selected. The IPv6 Address field is empty, while the Link Local Address is set to 'FE80::202:16FF:FEEC:C792'. The IPv6 Gateway and DNS Server fields are also empty.

The '802.1X' section at the bottom has the 'Use 802.1X Security' checkbox unchecked, and the 'Authentication' dropdown is set to 'MD5'. A 'Top' button is located at the bottom left of the window.

Aries

PhysicalConfigDesktopProgrammingAttributes

☐ DHCP

☒ Static

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 Configuration

☐ DHCP

☐ Auto Config

☒ Static

IPv6 Address

 /

Link Local Address

FE80::200:CFF:FEDE:CD03

IPv6 Gateway

IPv6 DNS Server

802.1X

☐ Use 802.1X Security

Authentication

MD5

☐ Top

Virgo

PhysicalConfigDesktopProgrammingAttributes

☐ DHCP

☒ Static

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

☐ Auto Config

☒ Static

IPv6 Address

 /

Link Local Address

FE80::207:ECFF:FE52:40AD

IPv6 Gateway

IPv6 DNS Server

802.1X

☐ Use 802.1X Security

Authentication

MD5

☐ Top

Libra

PhysicalConfigDesktopProgrammingAttributes

☐ DHCP

☒ Static

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

☐ Auto Config

☒ Static

IPv6 Address

 /

Link Local Address

FE80::2E0:B0FF:FE7C:9236

IPv6 Gateway

IPv6 DNS Server

802.1X

☐ Use 802.1X Security

Authentication

MD5

☐ Top

Taurus

PhysicalConfigDesktopProgrammingAttributes

☐ DHCP

☒ Static

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

☐ Auto Config

☒ Static

IPv6 Address

 /

Link Local Address

FE80::230:A3FF:FEBC:4736

IPv6 Gateway

IPv6 DNS Server

802.1X

☐ Use 802.1X Security

Authentication

MD5

☐ Top

Scorpio

Physical Config **Desktop** Programming Attributes

☐ DHCP ☒ Static

IP Address: 172.21.1.6

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::20C:CFFF:FE46:E058

IPv6 Gateway:

IPv6 DNS Server:

802.1X

☐ Use 802.1X Security

Authentication: MD5

☐ Top

3. Konfigurasi pada switch dengan *mode privileged*, membuat 3 VLAN, sebagai berikut.

Switch0

Physical Config **CLI** Attributes

IOS Command Line Interface

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

Switch>en
Switch#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan 10
Switch(config-vlan)#name zodiak1
Switch(config-vlan)#exit
Switch(config)#vlan 20
Switch(config-vlan)#name zodiak2
Switch(config-vlan)#exit
Switch(config)#vlan 30
Switch(config-vlan)#name zodiak3
Switch(config-vlan)#exit
Switch(config)#
```

Ctrl+F6 to exit CLI focus

Copy Paste

☐ Top

4. Setelah VLAN sudah dibuat selanjutnya konfigurasi setiap port-port ke dalam VLAN masing-masing yang sudah dibuat di langkah sebelumnya.

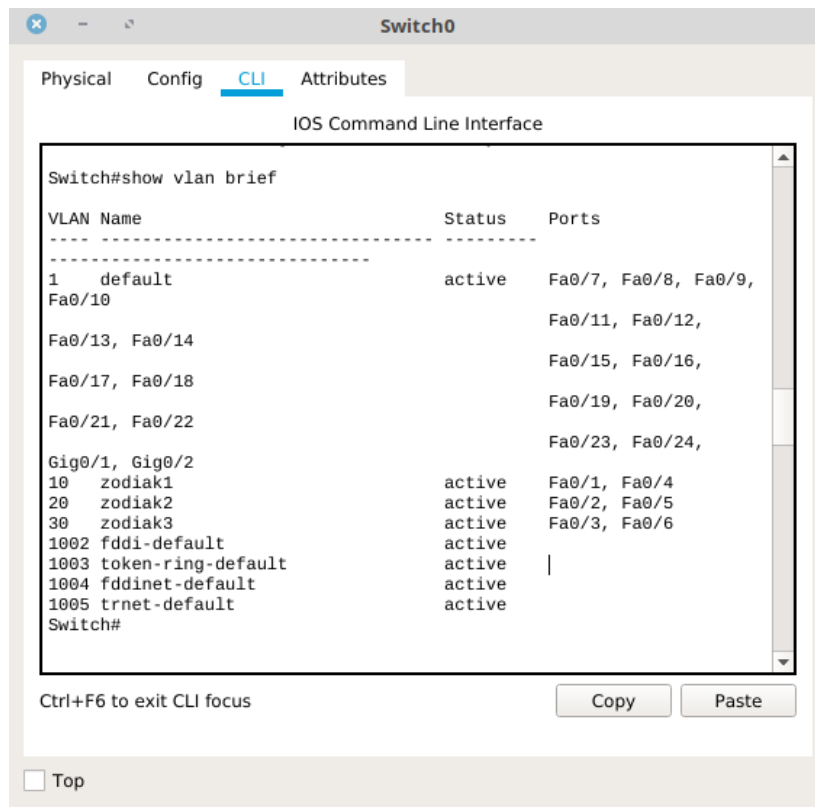
```
Switch0
Physical Config CLI Attributes
IOS Command Line Interface
Switch(config)#interface FastEthernet 0/1
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan10
^
% Invalid input detected at '^' marker.

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 vlan10
^
% Invalid input detected at '^' marker.

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
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)#interface FastEthernet 0/3
Switch(config-if)#switchport mode access
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

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

5. Hasil dari port-port yang sudah di konfigurasikan ke masing-masing VLAN.



## 6. A. Tugas

Hasil dari

konfigurasi diatas apabila dikelompokkan kedalam tabel.

No.	Nomor VLAN	Nama VLAN	Port	Status
1	10	zodiak1	Fa0/1, Fa0/4	active
2	20	zodiak2	Fa0/2, Fa0/5	active
3	30	zodiak3	Fa0/3, Fa0/6	active

## B. Tugas

Bisa disimpulkan bahwa setiap port yang sudah dikelompokkan kedalam masing-masing VLAN yang dalam keadaan *active*. Setiap port yang sudah dikelompokkan dalam VLAN masing-masing, bisa saling mengirim *broadcast*. Apabila berbeda VLAN akan mengalami *failed* dalam mengirim broadcast.