

# **COMPUTER NETWORK**

## **PRACTICUM 4**



**By:**

**MUHAMMAD IRFAN**

**NIM: L200184165**

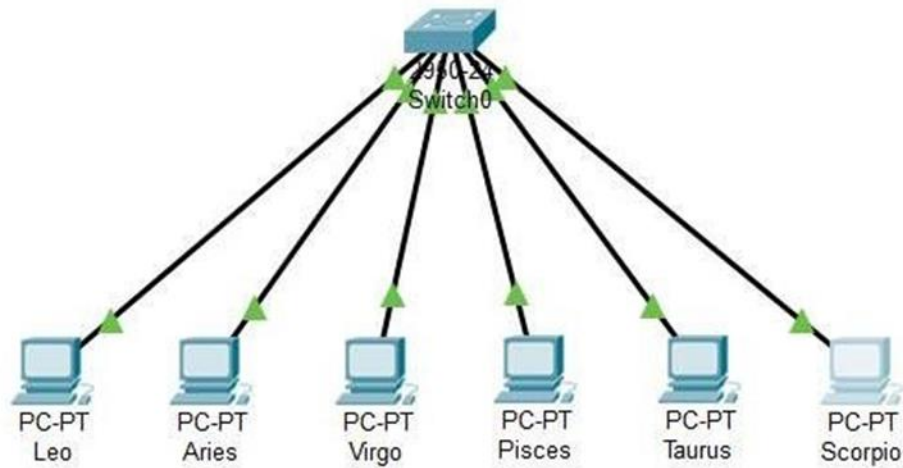
**INFORMATION TECHNOLOGY**

**FACULTY OF COMMUNICATION AND INFORMATICS**

**UNIVERSITY OF MUHAMMADIYAH**

**SURAKARTA 2020**

## 1. Activity 1



Picture 1.1. Set of computer network

```
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      |        |        |        |          |     |          |

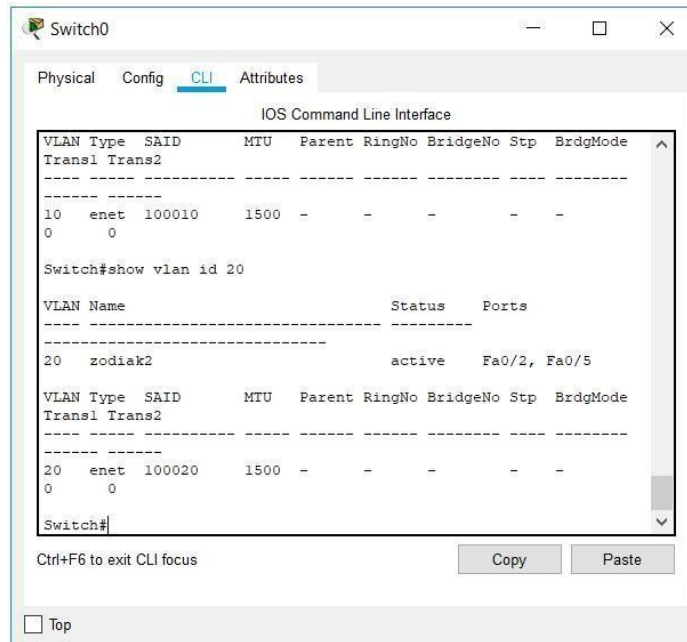
```
Switch#
```

Ctrl+F6 to exit CLI focus

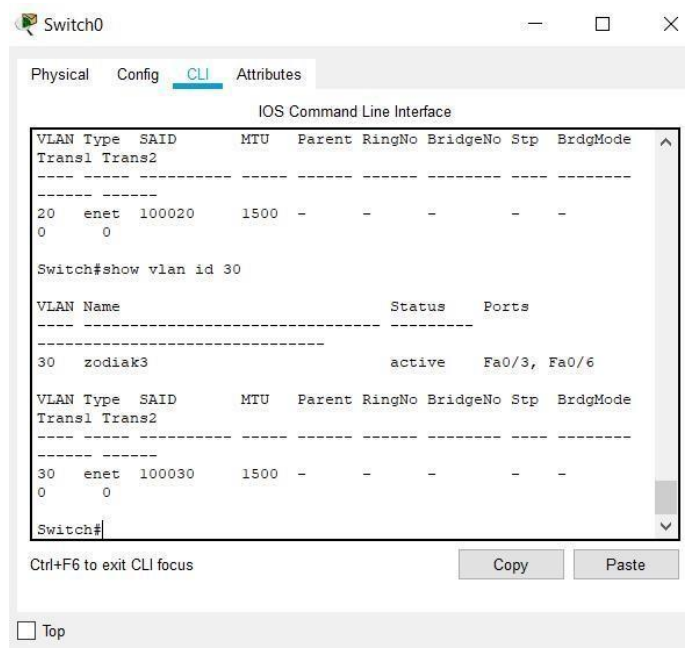
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Picture 1.2. Configuration information of VLAN  
10



**Picture 1.3. Configuration information of VLAN 20**



**Picture 1.4. Configuration information of VLAN 30**

### Tugas 6A:

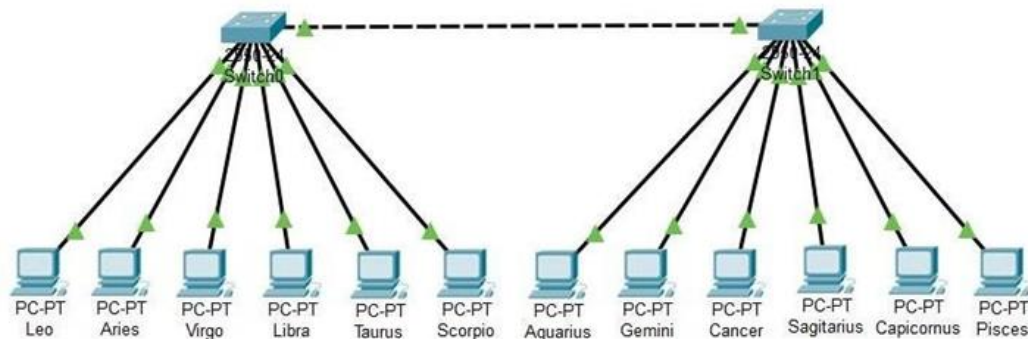
| No | Variabel   | Nilai        |              |              |
|----|------------|--------------|--------------|--------------|
|    |            | vlan id 10   | vlan id 20   | vlan id 30   |
| 1  | Nomor VLAN | 10           | 20           | 30           |
| 2  | Nama VLAN  | zodiak1      | zodiak2      | zodiak3      |
| 3  | Port       | Fa0/1, Fa0/4 | Fa0/2, Fa0/5 | Fa0/3, Fa0/6 |
| 4  | Status     | active       | active       | Active       |

### Tugas 6B:

#### Answers:

- In VLAN number 10 (zodiak1) there are 2 ports that have been configured, namely Fa0/1 and Fa0/4
- In VLAN number 20 (zodiak2) there are 2 ports that have been configured, namely Fa0/2 and Fa0/5
- In VLAN number 30 (zodiak3) there are 2 ports that have been configured, namely Fa0/3 and Fa0/6

## 2. Activity 2



**Picture 2.1. Set of computer network**

```
Switch#show vlan
```

| VLAN | Name               | Status | Ports  |
|------|--------------------|--------|--|
| 1    | default            | active | Fa0/6, Fa0/7, Fa0/8, Fa0/9<br>Fa0/10, Fa0/11, Fa0/12, Fa0/13<br>Fa0/14, Fa0/15, Fa0/16, Fa0/17<br>Fa0/18, Fa0/19, Fa0/20, Fa0/21<br>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      |

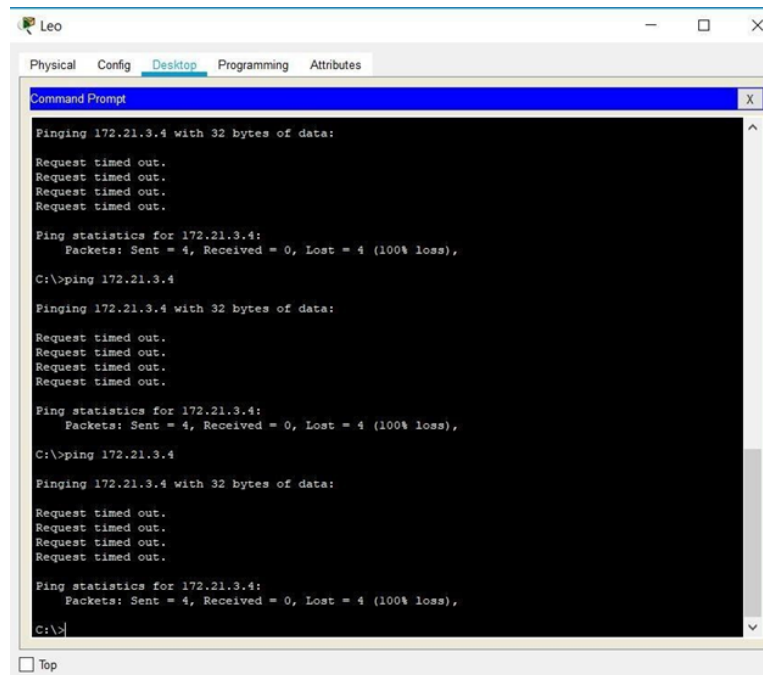
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**Picture 2.2. Result of show vlan command**

**Tugas 7A:**

**Answers:**

- 1) In VLAN number 10 (zodiak1) there are 2 ports that have been configured, namely Fa0/1 and Fa0/4
- 2) In VLAN number 20 (zodiak2) there are 2 ports that have been configured, namely Fa0/2 and Fa0/5
- 3) In VLAN number 30 (zodiak3) there are 2 ports that have been configured, namely Fa0/3 and Fa0/6
- 4) Fa0/24 is configured in VLAN Trunking

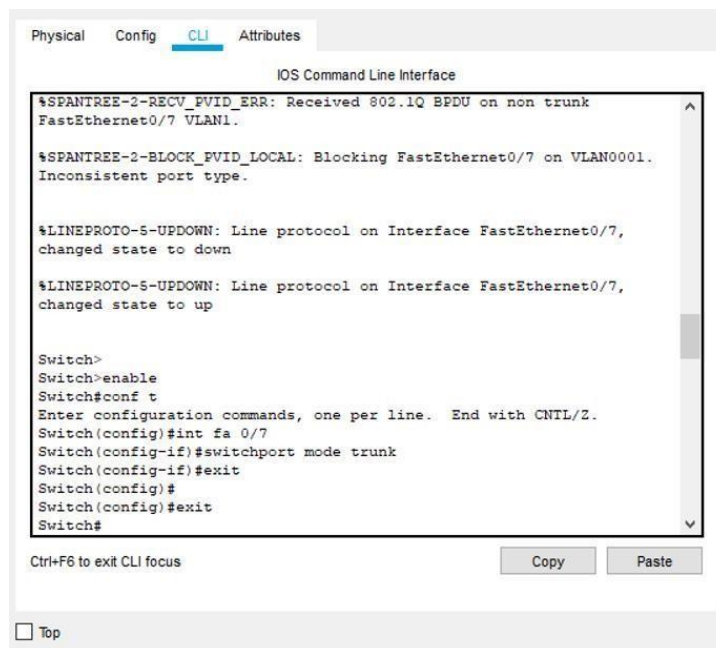


**Picture 2.3. Pingin from PC Leo to PC Pisces**

## **Tugas 8A:**

### **Answers:**

Because the configuration of the IP address on PC Leo and PC Pisces is different



**Picture 2.4. VLAN Trunking configuration for Switch 2**

```

Switch2
Switch#show vlan

VLAN Name                Status    Ports
-----
1    default                active    Fa0/1, Fa0/2, Fa0/3,
Fa0/4                    Fa0/5, Fa0/6, 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  BrdgMode
Transl Trans2
-----
1   enet  100001    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
Transl Trans2
-----

Remote SPAN VLANs
-----

Primary Secondary Type      Ports
-----
Switch#

```

**Picture 2.5. Result of Show vlan command**

**Tugas 10A:**

**Answer:**

It can be concluded that the trunking configuration has been done and the switch shows that the trunking configuration is running

```

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
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).

```

**Picture 2.6. Port switch configuration into the VLAN**

## Pinging Test

### Pc leo ke aries

```

Packet Tracer PC Command Line 1.0
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),

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),

C:\>

```

PC leo ke PC aquarius

```

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=110ms 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 = 110ms, Average = 25ms

C:\>

```



## Pc 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),
C:\>
```

## Pc 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),
C:\>
```

## Pc Libra ke leo

```
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:\>
```

## Tugas 12A:

### Answer:

can be concluded if the PC is on the same VLAN, it will result in Reply status. However, being on a different VLAN will result in Request Time Out status