Nama     : Zaidatul Febriyanti Khairunisa
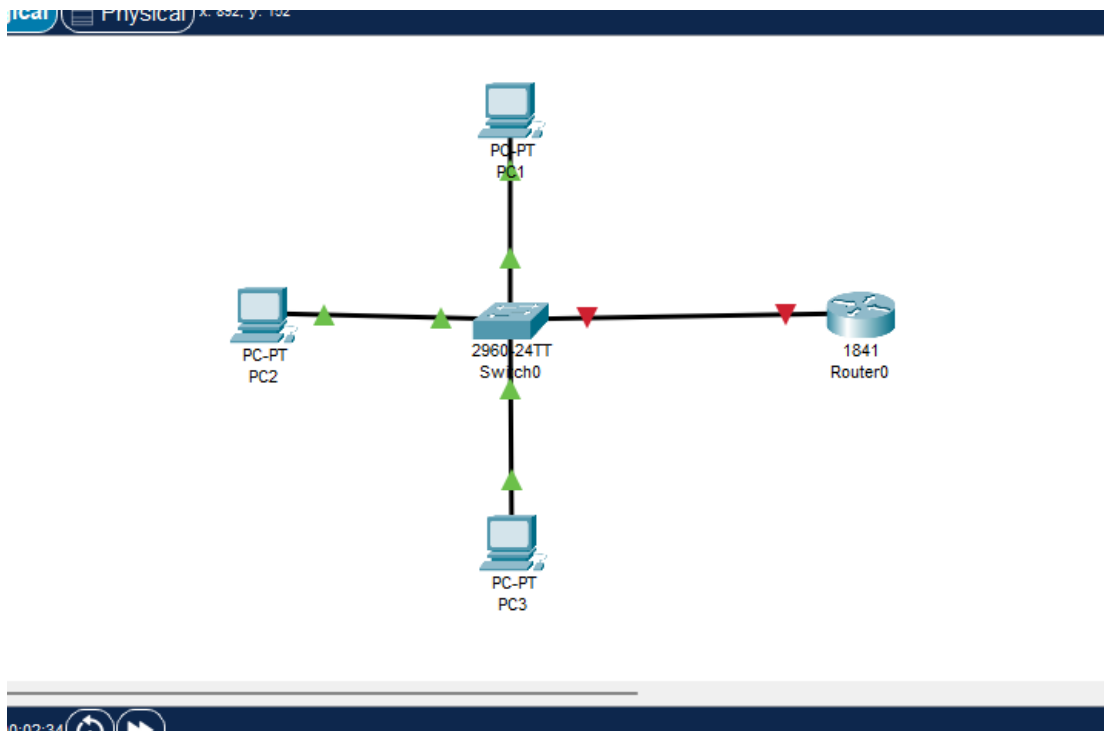
NIM      : 09010182327004

Kelas    ; MI3A

MK       : Praktikum jaringan computer

# VLAN & INTER-VLAN

- Topologi



- Konfigurasi switch

```
Switch>enable
Switch#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#Hostname SWITCH_09010182327004
SWITCH_09010182327004(config)#banner motd #selamat Datang di SWITCH_09010182327004#
SWITCH_09010182327004(config)#line console 0
SWITCH_09010182327004(config-line)#password 12345
SWITCH_09010182327004(config-line)#login
SWITCH_09010182327004(config-line)#exit
SWITCH_09010182327004(config)#line vty 0 4
SWITCH_09010182327004(config-line)#password 12345
SWITCH_09010182327004(config-line)#login
SWITCH_09010182327004(config-line)#exit
SWITCH_09010182327004(config)#enable password 12345
SWITCH_09010182327004(config)#enable secret 12345
The enable secret you have chosen is the same as your enable password.
This is not recommended.  Re-enter the enable secret.
SWITCH_09010182327004(config)#vlan 2
SWITCH_09010182327004(config-vlan)#Name Humas
SWITCH_09010182327004(config-vlan)#exit
SWITCH_09010182327004(config)#vlan 3
SWITCH_09010182327004(config-vlan)#Name Keuangan
SWITCH_09010182327004(config-vlan)#exit
SWITCH_09010182327004(config)#vlan 4
SWITCH_09010182327004(config-vlan)#Name IT
SWITCH_09010182327004(config-vlan)#exit
SWITCH_09010182327004(config)#vlan 5
SWITCH_09010182327004(config-vlan)#Name Pimpinan
SWITCH_09010182327004(config-vlan)#exit
SWITCH_09010182327004(config)#exit
SWITCH_09010182327004#
%SYS-5-CONFIG_I: Configured from console by console
```

```
SWITCH_09010182327004#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
SWITCH_09010182327004(config)#interface fastEthernet 0/1
SWITCH_09010182327004(config-if)#switchport mode access
SWITCH_09010182327004(config-if)#switchport access vlan 2
SWITCH_09010182327004(config-if)#exit
SWITCH_09010182327004(config)#interface fastEthernet 0/2
SWITCH_09010182327004(config-if)#switchport mode access
SWITCH_09010182327004(config-if)#switchport access vlan 3
SWITCH_09010182327004(config-if)#exit
SWITCH_09010182327004(config)#interface fastEthernet 0/3
SWITCH_09010182327004(config-if)#switchport mode access
SWITCH_09010182327004(config-if)#switchport access vlan 4
SWITCH_09010182327004(config-if)#exit
SWITCH_09010182327004(config)#interface fastEthernet 0/24
SWITCH_09010182327004(config-if)#switchport mode trunk
SWITCH_09010182327004(config-if)#exit
SWITCH_09010182327004(config)#exit
SWITCH_09010182327004#
%SYS-5-CONFIG_I: Configured from console by console

SWITCH_09010182327004#copy run start
Destination filename [startup-config]? show vlan
%Error copying nvram:show vlan (Invalid argument)
SWITCH_09010182327004#show vlan
```

- Hasil Daftar vlan

```
VLAN Name                             Status    Ports
---- -------------------------------- --------- -------------------------------
1    default                          active    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, Gig0/1, Gig0/2
2    Humas                            active    Fa0/1
3    Keuangan                         active    Fa0/2
4    IT                               active    Fa0/3
5    Pimpinan                         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
2    enet  100002     1500  -      -      -        -    -        0      0
 --More--
```

- Konfigurasi Router



```
Router>enable
Router#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#Hostname ROUTER_09010182327004
ROUTER_09010182327004(config)#banner motd #selamat Datang di Router I#
ROUTER_09010182327004(config)#line console 0
ROUTER_09010182327004(config-line)#password 12345
ROUTER_09010182327004(config-line)#login
ROUTER_09010182327004(config-line)#exit
ROUTER_09010182327004(config)#enable password 12345
ROUTER_09010182327004(config)#enable secret 12345
The enable secret you have chosen is the same as your enable password.
This is not recommended.  Re-enter the enable secret.
ROUTER_09010182327004(config)#line vty 0 4
ROUTER_09010182327004(config-line)#password 12345
ROUTER_09010182327004(config-line)#login
ROUTER_09010182327004(config-line)#exit
ROUTER_09010182327004(config)#interface fastEthernet 0/1
ROUTER_09010182327004(config-if)#no ip address
ROUTER_09010182327004(config-if)#no shutdown

ROUTER_09010182327004(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up

ROUTER_09010182327004(config-if)#exit
ROUTER_09010182327004(config)#interface fastEthernet 0/1.1
ROUTER_09010182327004(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/1.1, changed state to up

ROUTER_09010182327004(config-subif)#encapsulation dot1Q 2
ROUTER_09010182327004(config-subif)#ip address 192.168.200.1 255.255.255.0
ROUTER_09010182327004(config-subif)#exit
ROUTER_09010182327004(config)#interface fastEthernet 0/1.2
ROUTER_09010182327004(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/1.2, changed state to up
```

```
ROUTER_09010182327004(config-subif)#ip address 192.168.100.1 255.255.255.0

% Configuring IP routing on a LAN subinterface is only allowed if that
subinterface is already configured as part of an IEEE 802.10, IEEE 802.1Q,
or ISL vLAN.

ROUTER_09010182327004(config-subif)#encapsulation dot1Q 3
ROUTER_09010182327004(config-subif)#exit
ROUTER_09010182327004(config)#interface fastEthernet 0/1.3
ROUTER_09010182327004(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/1.3, changed state to up

ROUTER_09010182327004(config-subif)#encapsulation dot1Q 4
ROUTER_09010182327004(config-subif)#ip address 192.168.150.1 255.255.255.0
ROUTER_09010182327004(config-subif)#
```
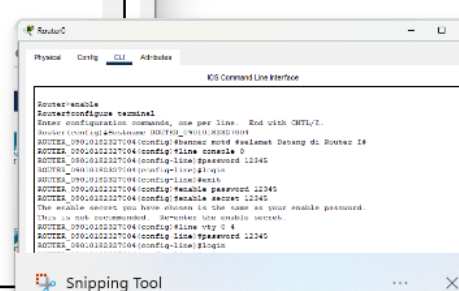
## Tes koneksi menggunakan ICMP

| NO | Sumber | Tujuan | Hasil | |
|----|--------|--------|-------|-------|
| | | | Ya | Tidak |
| 1 | PC1 | PC2 | | TIDAK |
| | | PC3 | | TIDAK |

| | PC2 | PC1 | | TIDAK |
|---|---|---|---|---|
| | | PC3 | | TIDAK |



PC2 — Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.200.2

Pinging 192.168.200.2 with 32 bytes of data:

Reply from 192.168.200.2: bytes=32 time=18ms TTL=128
Reply from 192.168.200.2: bytes=32 time=1ms TTL=128
Reply from 192.168.200.2: bytes=32 time=6ms TTL=128
Reply from 192.168.200.2: bytes=32 time=28ms TTL=128

Ping statistics for 192.168.200.2:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 1ms, Maximum = 28ms, Average = 13ms

C:\>ping 192.168.100.2

Pinging 192.168.100.2 with 32 bytes of data:

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

Ping statistics for 192.168.100.2:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 192.168.150.2

Pinging 192.168.150.2 with 32 bytes of data:

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

Ping statistics for 192.168.150.2:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
```

| 3 | PC3 | PC1 | | TIDAK |
|---|-----|-----|---|-------|
| | | PC2 | | TIDAK |

PC3 — □ ✕

Physical    Config    Desktop    Programming    Attributes

Command Prompt                                                    X

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.150.2

Pinging 192.168.150.2 with 32 bytes of data:

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

Ping statistics for 192.168.150.2:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 192.168.100.2

Pinging 192.168.100.2 with 32 bytes of data:

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

Ping statistics for 192.168.100.2:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>ping 192.168.200.2

Pinging 192.168.200.2 with 32 bytes of data:

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

Ping statistics for 192.168.200.2:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>
```