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Kelas   : **MI-3A**

LAPORAN PRAKTIKUM JARKOM

- Switch
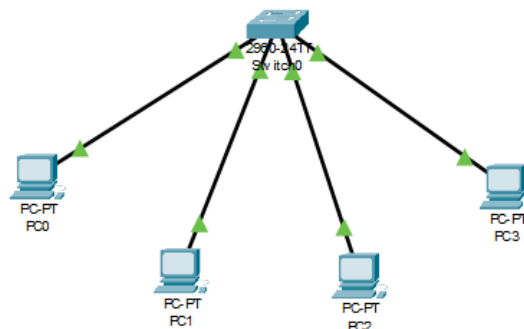
Hasil:

```
SWITCH>show vlan

VLAN Name                             Status    Ports
---- -------------------------------- --------- -------------------------------
1    default                          active    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    Fa0/4
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
2    enet  100002     1500  -      -      -        -    -        0      0
 --More--
```
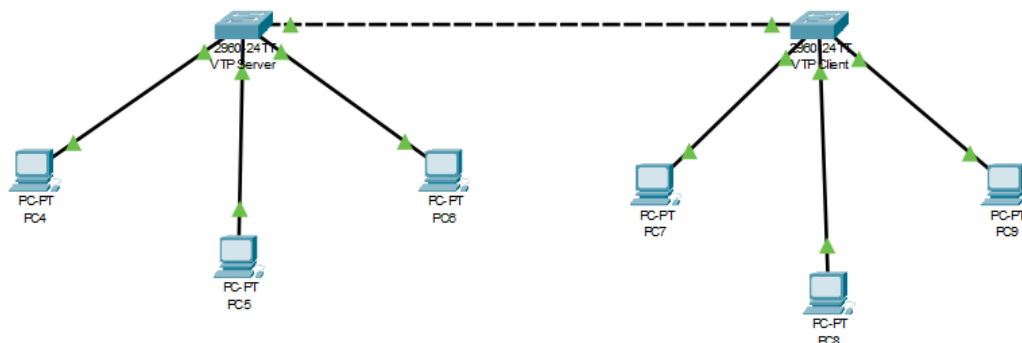
- VTP Server dan VTP client

- Server

```
Switch>enable
Switch#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#hostname "VTP Server"
% Spaces are not allowed in hostname
Switch(config)#hostname Switch_VTP_Server
Switch_VTP_Server(config)#hostname 09010182327005-VTP_Server
09010182327005-VTP_Server(config)#banner motd #S-VTP-SERVER#
09010182327005-VTP_Server(config)#line console 0
09010182327005-VTP_Server(config-line)#password cisco
09010182327005-VTP_Server(config-line)#login
09010182327005-VTP_Server(config-line)#exit
09010182327005-VTP_Server(config)#line vty 0 4
09010182327005-VTP_Server(config-line)#password cisco
09010182327005-VTP_Server(config-line)#login
09010182327005-VTP_Server(config-line)#exit
09010182327005-VTP_Server(config)#enable password cisco
09010182327005-VTP_Server(config)#enable secret cisco
The enable secret you have chosen is the same as your enable password.
This is not recommended.  Re-enter the enable secret.
09010182327005-VTP_Server(config)#vlan 2
09010182327005-VTP_Server(config-vlan)#name Humas
09010182327005-VTP_Server(config-vlan)#exit
09010182327005-VTP_Server(config)#vlan 3
09010182327005-VTP_Server(config-vlan)#name Keuangan
09010182327005-VTP_Server(config-vlan)#exit
09010182327005-VTP_Server(config)#vlan 4
09010182327005-VTP_Server(config-vlan)#name IT
09010182327005-VTP_Server(config-vlan)#exit
09010182327005-VTP_Server(config)#interface fastEthernet 0/1
09010182327005-VTP_Server(config-if)#switchport mode access
09010182327005-VTP_Server(config-if)#switchport access vlan 2
09010182327005-VTP_Server(config-if)#exit
09010182327005-VTP_Server(config)#interface fastEthernet 0/2
09010182327005-VTP_Server(config-if)#switchport mode access
09010182327005-VTP_Server(config-if)#switchport access vlan 3
09010182327005-VTP_Server(config-if)#exit
```

```
09010182327005-VTP_Server(config)#interface fastEthernet 0/2
09010182327005-VTP_Server(config-if)#switchport mode access
09010182327005-VTP_Server(config-if)#switchport access vlan 3
09010182327005-VTP_Server(config-if)#exit
09010182327005-VTP_Server(config)#interface fastEthernet 0/3
09010182327005-VTP_Server(config-if)#switchport mode access
09010182327005-VTP_Server(config-if)#switctpost access vlan 4
                                        ^
% Invalid input detected at '^' marker.

09010182327005-VTP_Server(config-if)#switchport access vlan 4
09010182327005-VTP_Server(config-if)#exit
09010182327005-VTP_Server(config)#vtp version 2
09010182327005-VTP_Server(config)#vtp mode server
Device mode already VTP SERVER.
09010182327005-VTP_Server(config)#vtp domain jarkom.ilkom.unsri.ac.id
Changing VTP domain name from NULL to jarkom.ilkom.unsri.ac.id
09010182327005-VTP_Server(config)#vtp password jarkom
Setting device VLAN database password to jarkom
09010182327005-VTP_Server(config)#interface fastEthernet 0/24
09010182327005-VTP_Server(config-if)#switchport mode trunk

09010182327005-VTP_Server(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/24, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/24, changed state to up

09010182327005-VTP_Server(config-if)#exit
09010182327005-VTP_Server(config)#exit
09010182327005-VTP_Server#
%SYS-5-CONFIG_I: Configured from console by console

09010182327005-VTP_Server#copy run start
Destination filename [startup-config]?
Building configuration...
[OK]
09010182327005-VTP_Server#
```

Hasil:

```
09010182327005-VTP_Server#show vtp status
VTP Version capable             : 1 to 2
VTP version running             : 2
VTP Domain Name                 : jarkom.ilkom.unsri.ac.id
VTP Pruning Mode                : Disabled
VTP Traps Generation            : Disabled
Device ID                       : 0060.2FB8.CC00
Configuration last modified by 0.0.0.0 at 3-1-93 00:22:11
Local updater ID is 0.0.0.0 (no valid interface found)

Feature VLAN :
--------------
VTP Operating Mode              : Server
Maximum VLANs supported locally : 255
Number of existing VLANs        : 8
Configuration Revision          : 0
MD5 digest                      : 0x7E 0xDD 0xFC 0xDA 0x06 0x06 0xCD 0x2C
                                  0x5F 0x3A 0x07 0x57 0x1F 0xC8 0x5E 0x0F
```

- Client

```
Switch>enable
Switch# configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#hostname 09010182327005-VTP_Client
09010182327005-VTP_Client(config)#banner motd #S-VTP-CLIENT#
09010182327005-VTP_Client(config)#line console 0
09010182327005-VTP_Client(config-line)#password cisco
09010182327005-VTP_Client(config-line)#login
09010182327005-VTP_Client(config-line)#exit
09010182327005-VTP_Client(config)#line vty 0 4
09010182327005-VTP_Client(config-line)#password cisco
09010182327005-VTP_Client(config-line)#login
09010182327005-VTP_Client(config-line)#exit
09010182327005-VTP_Client(config)#enable password cisco
09010182327005-VTP_Client(config)#enable secret cisco
The enable secret you have chosen is the same as your enable password.
This is not recommended.  Re-enter the enable secret.
09010182327005-VTP_Client(config)#vlan 2
09010182327005-VTP_Client(config-vlan)#name Humas
09010182327005-VTP_Client(config-vlan)#exit
09010182327005-VTP_Client(config)#vlan 3
09010182327005-VTP_Client(config-vlan)#name Keuangan
09010182327005-VTP_Client(config-vlan)#exit
09010182327005-VTP_Client(config)#vlan 4
09010182327005-VTP_Client(config-vlan)#name IT
09010182327005-VTP_Client(config-vlan)#exit
09010182327005-VTP_Client(config)#interface fastEthernet 0/1
09010182327005-VTP_Client(config-if)#switchport mode access
09010182327005-VTP_Client(config-if)#switchport access vlan 2
09010182327005-VTP_Client(config-if)#exit
09010182327005-VTP_Client(config)#interface fastEthernet 0/2
09010182327005-VTP_Client(config-if)#switchport mode access
09010182327005-VTP_Client(config-if)#switchport access vlan 3
09010182327005-VTP_Client(config-if)#exit
09010182327005-VTP_Client(config)#interface fastEthernet 0/3
09010182327005-VTP_Client(config-if)#switchport mode access
09010182327005-VTP_Client(config-if)#switchport access vlan 4
```

```
09010182327005-VTP_Client(config-vlan)#name IT
09010182327005-VTP_Client(config-vlan)#exit
09010182327005-VTP_Client(config)#interface fastEthernet 0/1
09010182327005-VTP_Client(config-if)#switchport mode access
09010182327005-VTP_Client(config-if)#switchport access vlan 2
09010182327005-VTP_Client(config-if)#exit
09010182327005-VTP_Client(config)#interface fastEthernet 0/2
09010182327005-VTP_Client(config-if)#switchport mode access
09010182327005-VTP_Client(config-if)#switchport access vlan 3
09010182327005-VTP_Client(config-if)#exit
09010182327005-VTP_Client(config)#interface fastEthernet 0/3
09010182327005-VTP_Client(config-if)#switchport mode access
09010182327005-VTP_Client(config-if)#switchport access vlan 4
09010182327005-VTP_Client(config-if)#exit
09010182327005-VTP_Client(config)#vtp version 2
09010182327005-VTP_Client(config)#vtp mode client
Setting device to VTP CLIENT mode.
09010182327005-VTP_Client(config)#vtp domain.jarkom.ilkom.unsri.ac.id
                                                  ^
% Invalid input detected at '^' marker.

09010182327005-VTP_Client(config)#vtp domain jarkom.ilkom.unsri.ac.id
Domain name already set to jarkom.ilkom.unsri.ac.id.
09010182327005-VTP_Client(config)#vtp password jarkom
Setting device VLAN database password to jarkom
09010182327005-VTP_Client(config)#interface fastEthernet 0/24
09010182327005-VTP_Client(config-if)#switchport mode trunk
09010182327005-VTP_Client(config-if)#exit
09010182327005-VTP_Client(config)#exit
09010182327005-VTP_Client#
%SYS-5-CONFIG_I: Configured from console by console

09010182327005-VTP_Client#copy run start
Destination filename [startup-config]?
Building configuration...
[OK]
09010182327005-VTP_Client#
```

Hasil:

```
09010182327005-VTP_Client#show vtp status
VTP Version capable              : 1 to 2
VTP version running              : 2
VTP Domain Name                  : jarkom.ilkom.unsri.ac.id
VTP Pruning Mode                 : Disabled
VTP Traps Generation             : Disabled
Device ID                        : 0060.2F23.2B00
Configuration last modified by 0.0.0.0 at 3-1-93 04:02:48

Feature VLAN :
--------------
VTP Operating Mode               : Client
Maximum VLANs supported locally  : 255
Number of existing VLANs         : 8
Configuration Revision           : 7
MD5 digest                       : 0x0C 0x73 0x70 0xC8 0xFA 0xA4 0x35 0x9A
                                   0x70 0xE5 0x3A 0x4E 0x76 0x3F 0x9F 0x3F
```

- **NAT**
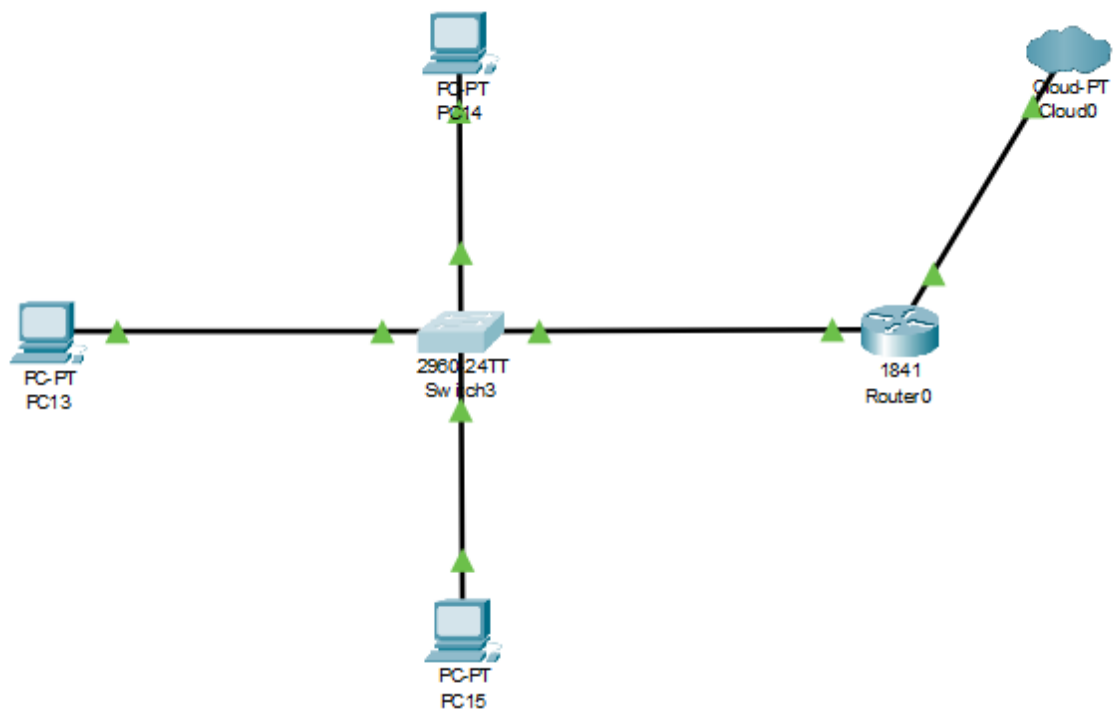
- Switch configuration:

```
Switch>enable
Switch#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#hostname Switch_Distribusi
Switch_Distribusi(config)#banner motd #Selamat Datang di SWITCH_DISTRIBUSI #
Switch_Distribusi(config)#line console 0
Switch_Distribusi(config-line)#password cisco
Switch_Distribusi(config-line)#login
Switch_Distribusi(config-line)#exit
Switch_Distribusi(config)#line vty 0 4
Switch_Distribusi(config-line)#password cisco
Switch_Distribusi(config-line)#login
Switch_Distribusi(config-line)#exit
Switch_Distribusi(config)#enable password cisco
Switch_Distribusi(config)#enable secret cisco
The enable secret you have chosen is the same as your enable password.
This is not recommended.  Re-enter the enable secret.
Switch_Distribusi(config)#vlan 2
Switch_Distribusi(config-vlan)#nama Humas
                              ^
% Invalid input detected at '^' marker.

Switch_Distribusi(config-vlan)#name Humas
Switch_Distribusi(config-vlan)#exit
Switch_Distribusi(config)#vlan 3
Switch_Distribusi(config-vlan)#name Keuangan
Switch_Distribusi(config-vlan)#exit
Switch_Distribusi(config)#vlan 4
Switch_Distribusi(config-vlan)#name IT
Switch_Distribusi(config-vlan)#exit
Switch_Distribusi(config)#interface fastEthernet 0/1
Switch_Distribusi(config-if)#switchport mode access
Switch_Distribusi(config-if)#switchport access vlan 2
Switch_Distribusi(config-if)#exit
Switch_Distribusi(config)#interface fastEthernet 0/2
Switch_Distribusi(config-if)#switchport mode access
```

```
Switch_Distribusi(config-vlan)#exit
Switch_Distribusi(config)#vlan 3
Switch_Distribusi(config-vlan)#name Keuangan
Switch_Distribusi(config-vlan)#exit
Switch_Distribusi(config)#vlan 4
Switch_Distribusi(config-vlan)#name IT
Switch_Distribusi(config-vlan)#exit
Switch_Distribusi(config)#interface fastEthernet 0/1
Switch_Distribusi(config-if)#switchport mode access
Switch_Distribusi(config-if)#switchport access vlan 2
Switch_Distribusi(config-if)#exit
Switch_Distribusi(config)#interface fastEthernet 0/2
Switch_Distribusi(config-if)#switchport mode access
Switch_Distribusi(config-if)#switchport access vlan 3
Switch_Distribusi(config-if)#exit
Switch_Distribusi(config)#interface fastEthernet 0/3
Switch_Distribusi(config-if)#switchport mode access
Switch_Distribusi(config-if)#switchport access vlan 4
Switch_Distribusi(config-if)#exit
Switch_Distribusi(config)#interface fastEthernet 0/24
Switch_Distribusi(config-if)#switchport mode trunk

Switch_Distribusi(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/24, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/24, changed state to up

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

Switch_Distribusi#copy run start
Destination filename [startup-config]?
Building configuration...
[OK]
Switch_Distribusi#
```

Hasil:

```
Switch_Distribusi#show 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
                                                Gig0/1, Gig0/2
2    Humas                            active    Fa0/1
3    Keuangan                         active    Fa0/2
4    IT                               active    Fa0/3
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
2    enet  100002     1500  -      -      -        -    -        0      0
3    enet  100003     1500  -      -      -        -    -        0      0
 --More--
```

VLAN	Nama	Status	Port
Vlan 2	Humas	Active	Fa0/1
Vlan 3	Keuangan	Active	Fa0/2
Vlan 4	IT	Active	Fa0/3

- Router configuration:

```
Router>enable
Router#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router(config)#hostname Router_I
Router_I(config)#banner motd #Selamat Datang di Router I#
Router_I(config)#line console 0
Router_I(config-line)#password cisco
Router_I(config-line)#login
Router_I(config-line)#exit
Router_I(config)#enable password cisco
Router_I(config)#enable secret cisco
The enable secret you have chosen is the same as your enable password.
This is not recommended.  Re-enter the enable secret.
Router_I(config)#line vty 0 4
Router_I(config-line)#password cisco
Router_I(config-line)#login
Router_I(config-line)#exit
Router_I(config)#interface fastEthernet 0/0
Router_I(config-if)#ip address 10.100.112.10 255.255.255.0
Router_I(config-if)#ip nat inside
Router_I(config-if)#no shutdown
Router_I(config-if)#exit
Router_I(config)#interface fastEthernet 0/1
Router_I(config-if)#no ip address
Router_I(config-if)#no shutdown
Router_I(config-if)#exit
Router_I(config)#interface fastEthernet 0/1.1
Router_I(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/1.1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1.1, changed state to up

Router_I(config-subif)#encapsulation dot1Q 2
Router_I(config-subif)#ip address 192.168.200.1 255.255.255.0
Router_I(config-subif)#ip nat outside
Router_I(config-subif)#exit
Router_I(config)#interface fastEthernet 0/1.2
```

```
Router_I(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/1.2, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1.2, changed state to up

Router_I(config-subif)#encapsulation dot1Q 3
Router_I(config-subif)#ip address 192.168.100.1 255.255.255.0
Router_I(config-subif)#ip nat outside
Router_I(config-subif)#exit
Router_I(config)#interface fastEthernet 0/1.3
Router_I(config-subif)#
%LINK-5-CHANGED: Interface FastEthernet0/1.3, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1.3, changed state to up

Router_I(config-subif)#encapsulation dot1Q 4
Router_I(config-subif)#ip address 192.168.150.1 255.255.255.0
Router_I(config-subif)#ip nat outside
Router_I(config-subif)#exit
Router_I(config)#ip dhcp excluded 192.168.200.2 192.168.200.20
Router_I(config)#ip dhcp pool 192.168.200.0/24
Router_I(dhcp-config)#network 192.168.200.0 255.255.255.0
Router_I(dhcp-config)#default-router 192.168.100.1
Router_I(dhcp-config)#dns-server 222.124.194.11
Router_I(dhcp-config)#end
Router_I#
%SYS-5-CONFIG_I: Configured from console by console

Router_I#configure terminal
Enter configuration commands, one per line.  End with CNTL/Z.
Router_I(config)#ip dhcp excluded 192.168.150.2 192.168.150.20
Router_I(config)#ip dhcp pool 192.168.150.0/24
Router_I(dhcp-config)#network 192.168.150.0 255.255.255.0
Router_I(dhcp-config)#default-router 192.168.150.1
Router_I(dhcp-config)#dns-server 222.124.194.11
Router_I(dhcp-config)#exit
Router_I(config)#ip nat pool konek 10.100.121.10 10.100.121.10 netmask 255.255.255.0
```

```
Router_I(config)#access-list 99 permit 192.168.200.0 0.0.0.255
Router_I(config)#access-list 99 permit 192.168.100.0 0.0.0.255
Router_I(config)#access-list 99 permit 192.168.150.0 0.0.0.255
Router_I(config)#ip nat inside source list 99 pool konek overload
Router_I(config)#ip Route 0.0.0.0 0.0.0.0 10.100.121.1
Router_I(config)#ip name-server 222.124.194.11
Router_I(config)#ip name-server 222.124.194.18
Router_I(config)#ip domain-name unsri.ac.id
Router_I(config)#exit
Router_I#
%SYS-5-CONFIG_I: Configured from console by console

Router_I#copy run start
Destination filename [startup-config]?
Building configuration...
[OK]
Router_I#
```

Hasil:

```
Router_I#show ip dhcp binding
IP address        Client-ID/              Lease expiration        Type
                  Hardware address
```