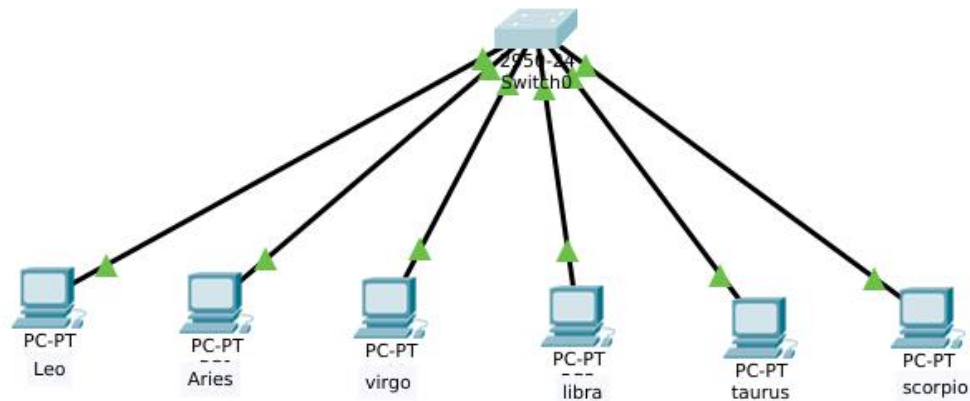


Nama : Zulfa Fajrul falah
Nim : L200170149 / D

LAPORAN PRAKTIKUM JARINGAN KOMPUTER MODUL KE 4

Kegiatan 1

1. Buat topologi di packet tracer



2. Setting ip pada masing masing komputer

Dengan ketentuan ip

Leo : 172.21.1.1/24
Arie : 172.21.1.2/24
Virgo:172.21.1.3/24
Libra: 172.21.1.4/24
Taurus:172.21.1.5/24
Scorpio :172.21.1.6/24

The screenshot shows the configuration window for PC0 in Packet Tracer. The 'Desktop' tab is selected. Under the 'IP Configuration' section, the 'Static' radio button is chosen. The IP Address is set to 172.21.1.1, Subnet Mask to 255.255.255.0, Default Gateway to 0.0.0.0, and DNS Server to 0.0.0.0. In the 'IPv6 Configuration' section, the 'Static' radio button is also selected, with the IPv6 Address field empty and the Link Local Address set to FE80::230:A3FF:FE58:E98B. The '802.1X' section has 'Use 802.1X Security' unchecked, 'Authentication' set to MD5, and the 'Username' field empty. A 'Top' button is located at the bottom left of the window.

PC5

Physical Config **Desktop** Programming Attributes

☐ DHCP ☒ Static

IP Address: 172.21.1.6

Subnet Mask: 255.255.255.0

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:FE86:1D23

IPv6 Gateway:

IPv6 DNS Server:

802.1X

☐ Use 802.1X Security

Authentication: MD5

Username:

☐ Top

3. Konfigurasi Vlan pada switch1 (Membuat Vlan 10, 20, 30 dan memasukan atau mengelompokkan port-port client kedalam vlan yang sudah di buat)

Switch0

Physical Config **CLI** Attributes

IOS Command Line Interface

```
Switch>en
Switch#show vlan brief
```

VLAN	Name	Status	Ports
1	default	active	Fa0/7, Fa0/8, Fa0/9, 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	Fa0/1, 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	

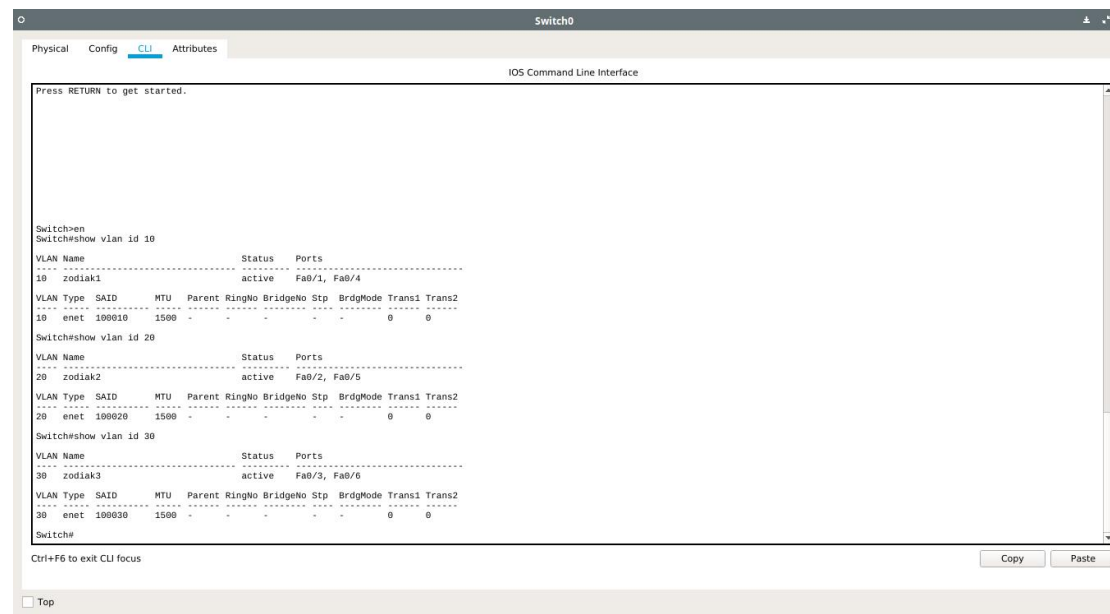
Switch#

Ctrl+F6 to exit CLI focus

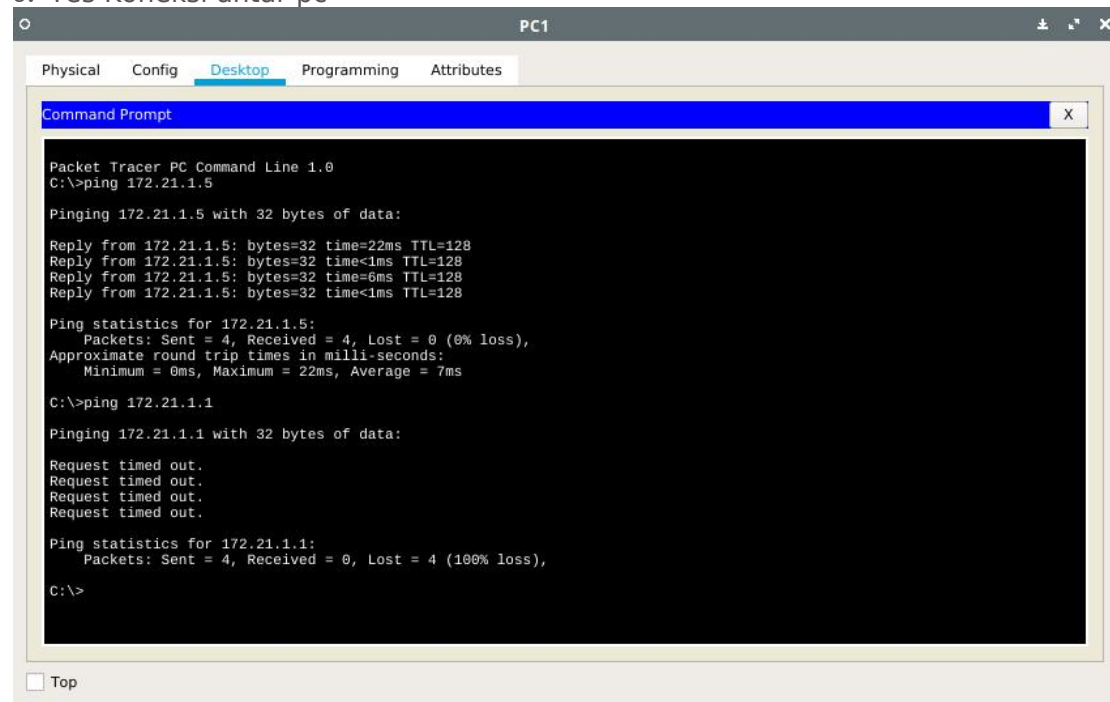
Copy Paste

☐ Top

4. Mengetas Vlan pada Switch (Vlan zodiak1, zodiak2, zodiak3)



5. Tes Koneksi antar pc

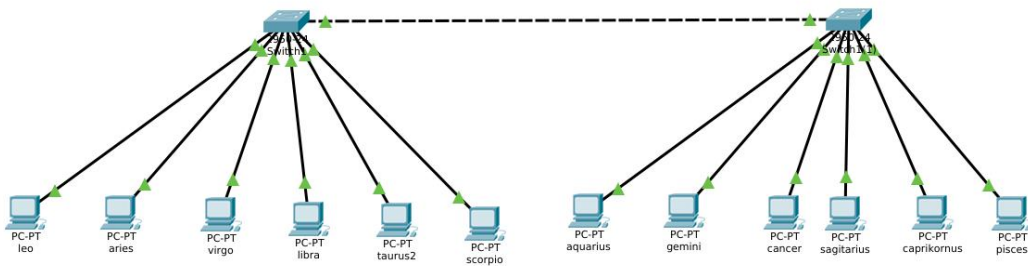


Ket :

Ping ke ip 172.21.1.5 berhasil karena masih dalam satu vlan yang sama yaitu zodiak2, tetapi ping ke ip 172.21.1.1 menghasilkan RTO dikarenakan sudah berbeda vlan.

Kegiatan 2

1. Buat topologi di packet tracer



2. Seting ip sesuai ketentuan berikut

Leo : 172.21.1.1/24
Aries : 172.21.1.2/24
Virgo : 172.21.2.1/24
Libra : 172.21.2.2/24
Taurus : 172.21.3.1/24
Scorpio: 172.21.3.2/24
Aquarius : 172.21.1.3/24
Gemini: 172.21.1.4/24
Cancer : 172.21.2.3/24
Sagitarius : 172.21.2.4/24
Capricornus : 172.21.3.3/24
Pisces : 172.21.3.4/24

leo

Physical Config **Desktop** Programming Attributes

☐ DHCP ☒ Static

IP Address: 172.21.1.1

Subnet Mask: 255.255.255.0

Default Gateway: 0.0.0.0

DNS Server: 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::290:2BFF:FEA0:D7DC

IPv6 Gateway:

IPv6 DNS Server:

802.1X

☐ Use 802.1X Security

Authentication: MD5

Username:

☐ Top

pisces

Physical Config **Desktop** Programming Attributes

☐ DHCP ☒ Static

IP Address: 172.21.3.4

Subnet Mask: 255.255.255.0

Default Gateway: 0.0.0.0

DNS Server: 0.0.0.0

IPv6 Configuration

☐ DHCP ☐ Auto Config ☒ Static

IPv6 Address: /

Link Local Address: FE80::20A:41FF:FE63:7B40

IPv6 Gateway:

IPv6 DNS Server:

802.1X

☐ Use 802.1X Security

Authentication: MD5

Username:

☐ Top

3. Konfigurasi vlan di switch 1 dan switch 2, kemudian masukan port-port client di dalam vlan yang telah kita buat

Switch1

Physical Config **CLI** Attributes

IOS Command Line Interface

```
%LINK-5-CHANGED: Interface FastEthernet0/7, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/7, changed state to up

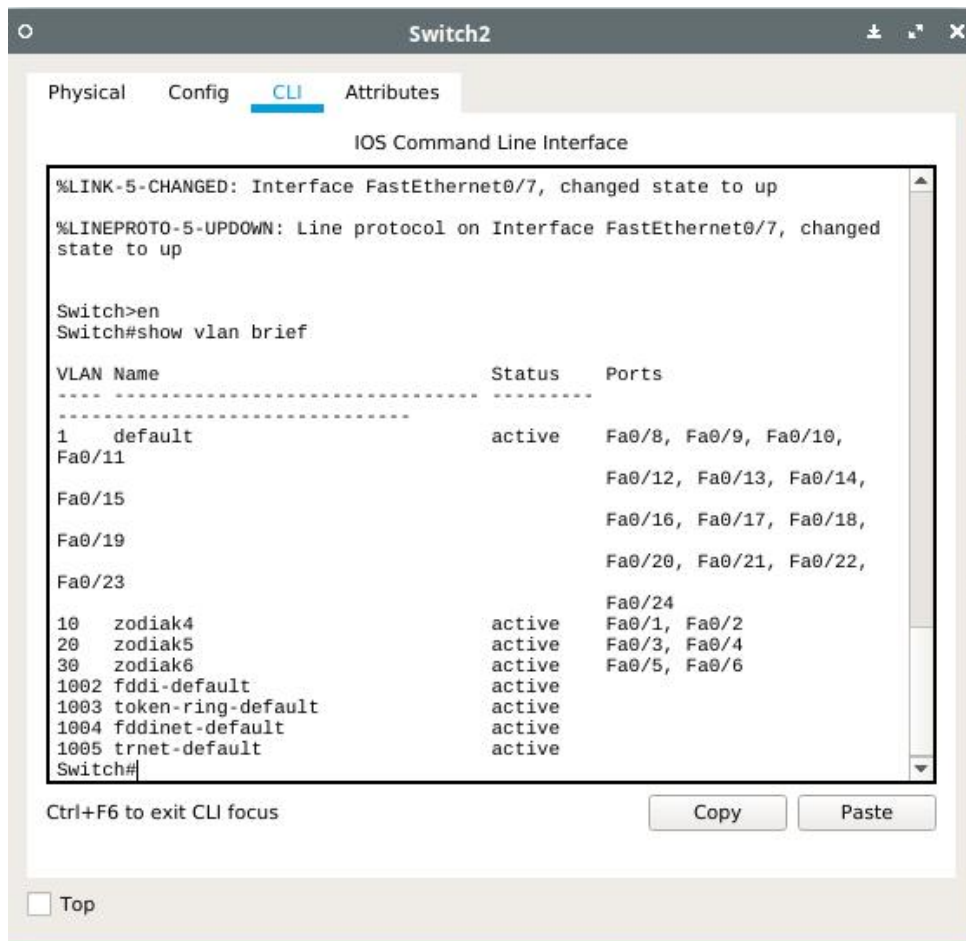
Switch>en
Switch#show vlan brief
```

VLAN Name	Status	Ports
1 default	active	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	Fa0/1, Fa0/2
20 zodiak2	active	Fa0/3, Fa0/4
30 zodiak3	active	Fa0/5, Fa0/6
1002 fddi-default	active	
1003 token-ring-default	active	
1004 fddinet-default	active	
1005 trnet-default	active	

Switch#

Ctrl+F6 to exit CLI focus

☐ Top



4. Konfigurasi Trunking pada switch 1 (pengecekan)

```
Switch#show interfaces fa0/7 switchport
Name: Fa0/7
Switchport: Enabled
Administrative Mode: trunk
Operational Mode: trunk
Administrative Trunking Encapsulation: dot1q
Operational Trunking Encapsulation: dot1q
Negotiation of Trunking: On
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 1 (default)
Voice VLAN: none
Administrative private-vlan host-association: none
Administrative private-vlan mapping: none
Administrative private-vlan trunk native VLAN: none
Administrative private-vlan trunk encapsulation: dot1q
Administrative private-vlan trunk normal VLANs: none
Administrative private-vlan trunk private VLANs: none
Operational private-vlan: none
Trunking VLANs Enabled: All
Pruning VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL
Protected: false
Appliance trust: none

Switch#
```

Tugas 7A : Hasil dari konfigurasi Trunk di switch satu dan switch dua adalah mengaktifkan switch port fa 0/7 (port yang digunakan untuk truk) dan Administrative Mode mejadi trunk serta Operational Mode trunk

8. Tek koneksi PC

```
Pinging 172.21.1.1 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 172.21.1.1:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\>
```

☐ Top

Tugas 8A : Hasil dari pc leo ke pc pisces berstatus TRO di karenakan belum di konfigurasinya Trunking di switch 2

9. KOnfigurasi Trunking pada Switch 2

```
Switch#show interfaces fa0/7 switchport
Name: Fa0/7
Switchport: Enabled
Administrative Mode: trunk
Operational Mode: trunk
Administrative Trunking Encapsulation: dot1q
Operational Trunking Encapsulation: dot1q
Negotiation of Trunking: On
Access Mode VLAN: 1 (default)
Trunking Native Mode VLAN: 1 (default)
Voice VLAN: none
Administrative private-vlan host-association: none
Administrative private-vlan mapping: none
Administrative private-vlan trunk native VLAN: none
Administrative private-vlan trunk encapsulation: dot1q
Administrative private-vlan trunk normal VLANs: none
Administrative private-vlan trunk private VLANs: none
Operational private-vlan: none
Trunking VLANs Enabled: All
Pruning VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL
Protected: false
Appliance trust: none
```

Switch#

10. Mengecek hasil konfigurasi vlan

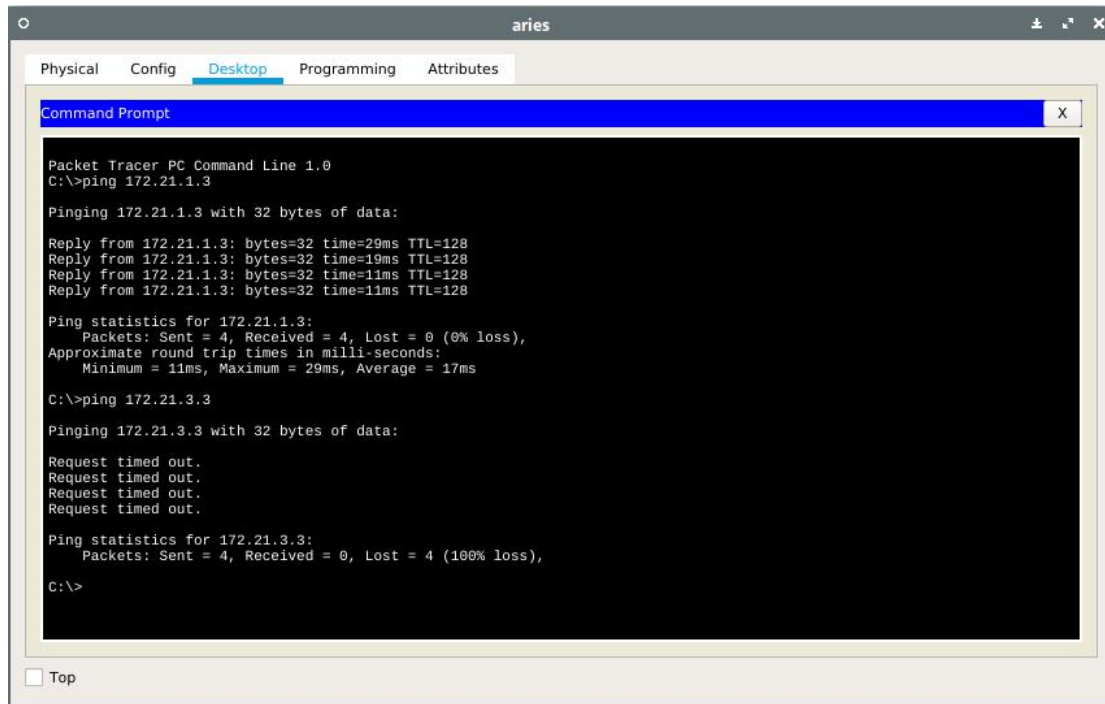
```
Switch>en
Switch#show vlan

VLAN Name                Status    Ports
-----
1    default                active    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   zodiak4                 active    Fa0/1, Fa0/2
20   zodiak5                 active    Fa0/3, Fa0/4
30   zodiak6                 active    Fa0/5, 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 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
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

--More--
```


11. Tes koneksi Pc client kembali



Ket :

Dilakukan ping ke ip 172.21.1.3 (antar switch) dan berstatus berhasil, karena memiliki zona vlan yang sama yaitu vlan 10. Tetapi ping ke ip 172.21.3.3 berstatus TRO karea memiliki zona Vlan yang berbeda antara vlan 10 dan vlan 30.

Tugas 12A : Hasil tes koneksi (Ping) antara pc leo dengan pc pisces berhasil karena port fa 0/7 di switch 2 telah di konfigurasi Trunk sehingga antara switch 1 dan switch 2 dapat berkomunikasi.