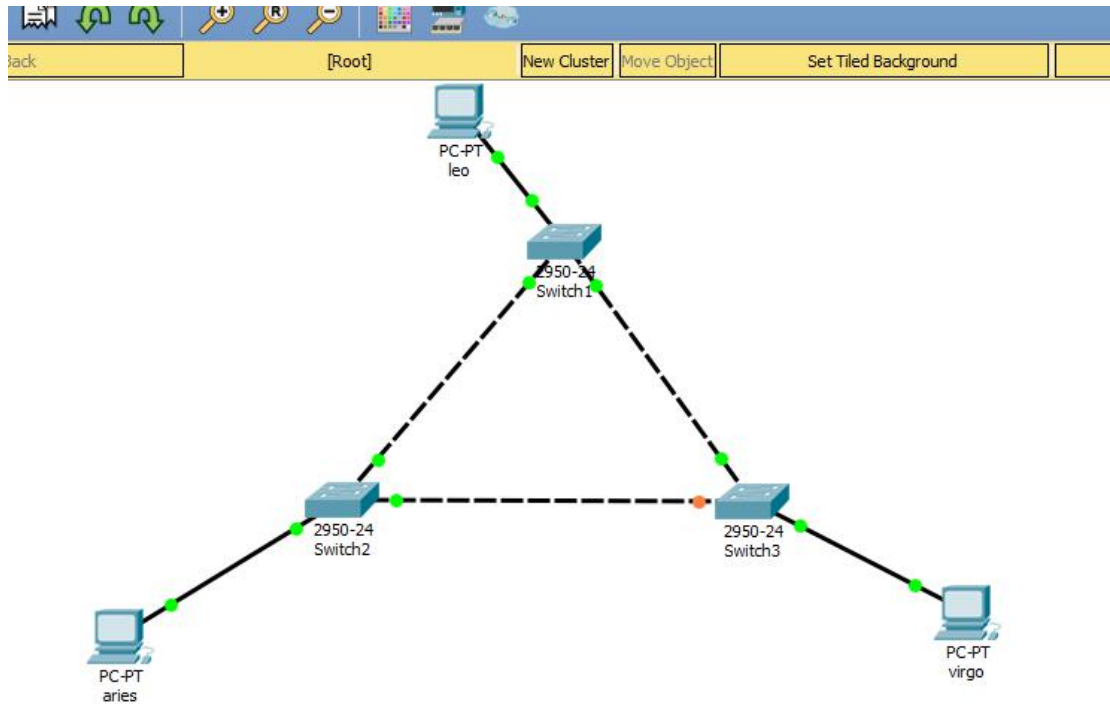Nama   : SARTIKA RIZKY M
NIM   : L200170118
Kelas   : C

KEGIATAN 1

Tugas 1A : Langkah-langkah pembuatan topologi
Jawab : - pilih switch 2950-24 sebanyak 3, dan diberi nama switch 1,2,3
        - pilih 3 pc yang diletekan di setiap sisi switch dan beri nama leo, aries, virgo
        - hubungkan switch dengan pc dengan menggunakan kabel copper straight-through
        - hubungkan sesama switch dengan kabel copper cros-over

Switch0

Physical | **Config** | **CLI** | **Attributes**

IOS Comma

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up

%LINK-5-CHANGED: Interface FastEthernet0/2, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2, changed state to up

%LINK-5-CHANGED: Interface FastEthernet0/3, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3, changed state to up


Switch>en
Switch#conf term
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#hostname SW1
SW1(config)#exit
SW1#
%SYS-5-CONFIG_I: Configured from console by console

SW1#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     0001.96CE.0A33
             This bridge is the root
             Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec

  Bridge ID  Priority    32769  (priority 32768 sys-id-ext 1)
             Address     0001.96CE.0A33
             Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec
             Aging Time  20

Interface         Role Sts Cost      Prio.Nbr Type
---------------- ---- --- --------- -------- --------------------------------
Fa0/1             Desg FWD 19        128.1    P2p
Fa0/2             Desg FWD 19        128.2    P2p
Fa0/3             Desg FWD 19        128.3    P2p

SW1#
```

Ctrl+F6 to exit CLI focus

Switch1

Physical | Config | CLI | Attributes

```
%LINK-5-CHANGED: Interface FastEthernet0/2, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2, changed state to up

%LINK-5-CHANGED: Interface FastEthernet0/3, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3, changed state to up


Switch>en
Switch#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#hostname SW2
SW2(config)#exit
SW2#
%SYS-5-CONFIG_I: Configured from console by console

SW2#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     0001.96CE.0A33
             Cost        19
             Port        2(FastEthernet0/2)
             Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec

  Bridge ID  Priority    32769  (priority 32768 sys-id-ext 1)
             Address     000D.BD74.DB94
             Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec
             Aging Time  20

Interface        Role Sts Cost      Prio.Nbr Type
---------------- ---- --- --------- -------- --------------------------------
Fa0/3            Desg FWD 19        128.3    P2p
Fa0/2            Root FWD 19        128.2    P2p
Fa0/1            Desg FWD 19        128.1    P2p

SW2#
```

Ctrl+F6 to exit CLI focus

Physical | Config | CLI | Attributes

IOS Commar

```
%LINK-5-CHANGED: Interface FastEthernet0/2, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/2, changed state to up

%LINK-5-CHANGED: Interface FastEthernet0/3, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/3, changed state to up


Switch>en
Switch#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
Switch(config)#hostname SW3
SW3(config)#exit
SW3#
%SYS-5-CONFIG_I: Configured from console by console

SW3#show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     0001.96CE.0A33
             Cost        19
             Port        3(FastEthernet0/3)
             Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec

  Bridge ID  Priority    32769  (priority 32768 sys-id-ext 1)
             Address     0060.5CCE.BA99
             Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec
             Aging Time  20

Interface        Role Sts Cost      Prio.Nbr Type
---------------- ---- --- --------- -------- --------------------------------
Fa0/2            Altn BLK 19        128.2    P2p
Fa0/1            Desg FWD 19        128.1    P2p
Fa0/3            Root FWD 19        128.3    P2p

SW3#
```

Ctrl+F6 to exit CLI focus

Tugas 2A: pemberian nama dengan mode user
> - di masing-masing CLI Switch konfig dengan cara ketik en >> conf t >> hostname *nama switch* >> exit

Tugas 2B : capture tampilan status STP Switch diatas

leo

Physical | Config | Desktop | Programming | Attributes

IP Configuration   X

IP Configuration

○ DHCP   ● Static

IP Address   172.21.1.1

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::203:E4FF:FE83:B5C0

IPv6 Gateway

IPv6 DNS Server

☐ Top

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aries

Physical | Config | Desktop | Programming | Attributes

IP Configuration   X

IP Configuration

○ 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
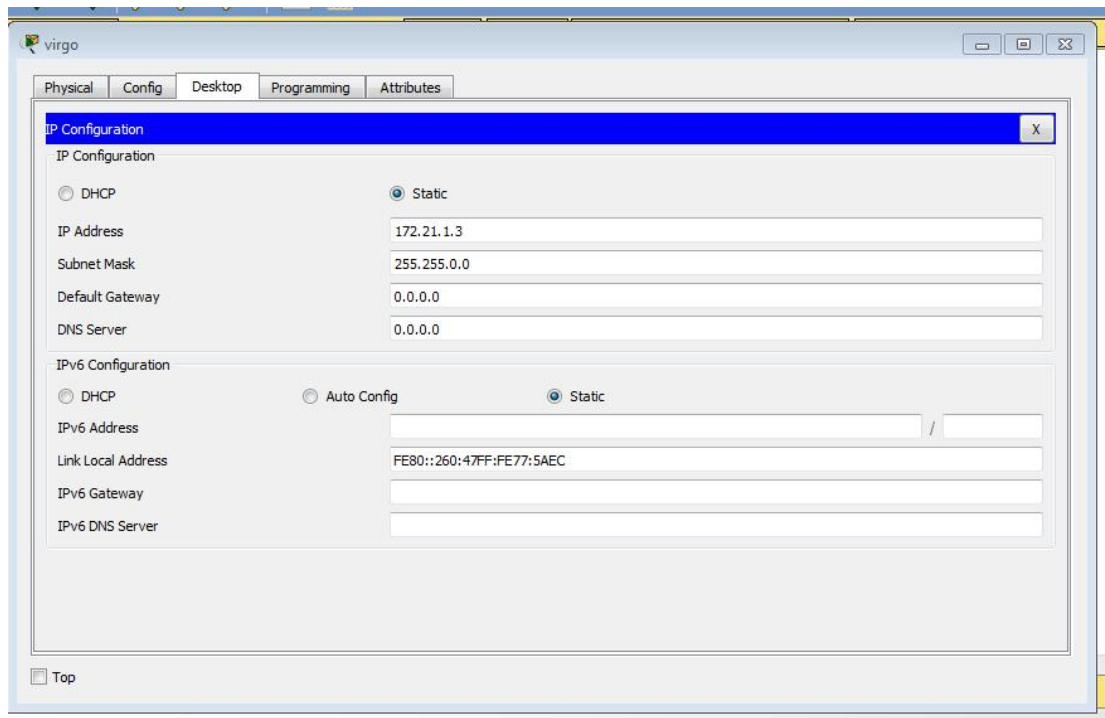
IPv6 Address   /

Link Local Address   FE80::206:2AFF:FE42:5037

IPv6 Gateway

IPv6 DNS Server

☐ Top

Pemberian alamat IP pada masing-masing PC

Tugas 4B: tabel tiap switch
SW1

No	Variabel	Nilai
1.	Root ID	32769
2.	Priority	-
3.	MAC Address	0001.96CE.DA33
4.	Bridge ID	32769
5.	Cost (0/1;0/2;0/3)	19,19,19
6.	Hello Time	2 sec
7.	Max Age	20 sec
8.	Forward Delay	15 sec

SW1

No	Variabel	Nilai
1.	Root ID	32769
2.	Priority	-
3.	MAC Address	000D.BD74.DB94
4.	Bridge ID	32769
5.	Cost (0/1;0/2;0/3)	19,19,19
6.	Hello Time	2 sec
7.	Max Age	20 sec
8.	Forward Delay	15 sec

SW3

No	Variabel	Nilai
1.	Root ID	32769
2.	Priority	-
3.	MAC Address	0060.5CCE.BA99
4.	Bridge ID	32769

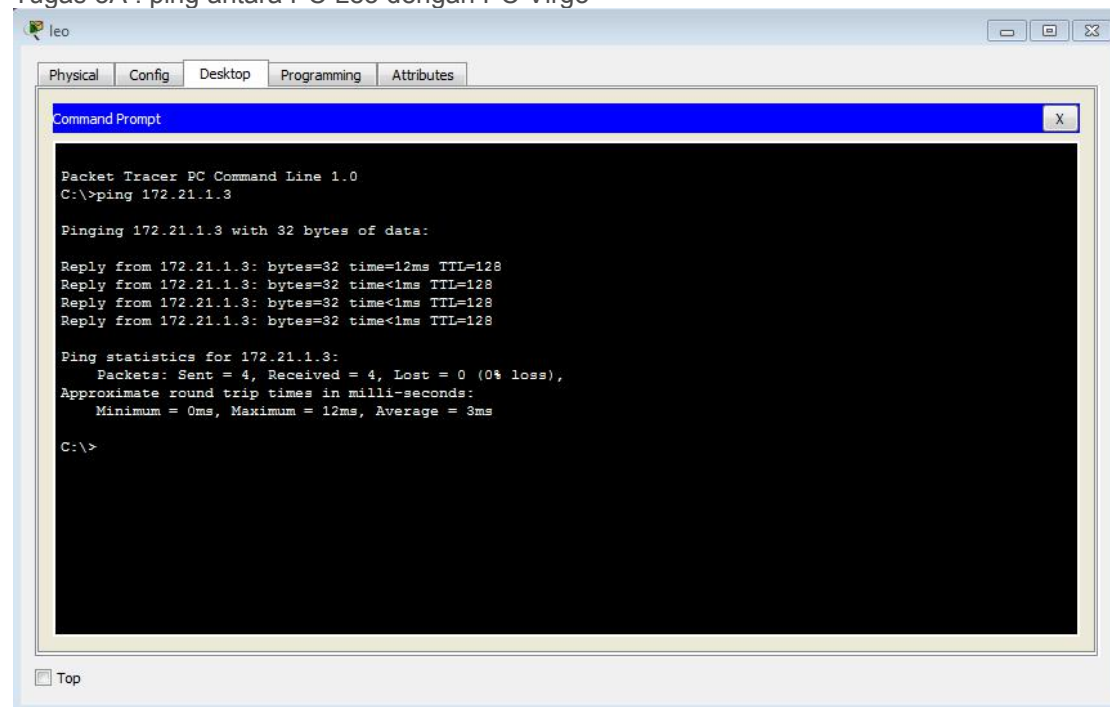| 5.	Cost (0/1;0/2;0/3)	19,19,19
6.	Hello Time	2 sec
7.	Max Age	20 sec
8.	Forward Delay	15 sec

Tugas 4C:
- menjadi root bridge : SW1
- menjadi designated bridge : SW2
- menjadi root port : SW2 0/2, SW0/3
- menjadi designated port : SW2 0/3

Tugas 4D:
- keadaan forwarding : SW1 dengan SW2
- keadaan blocking : SW3 0/2

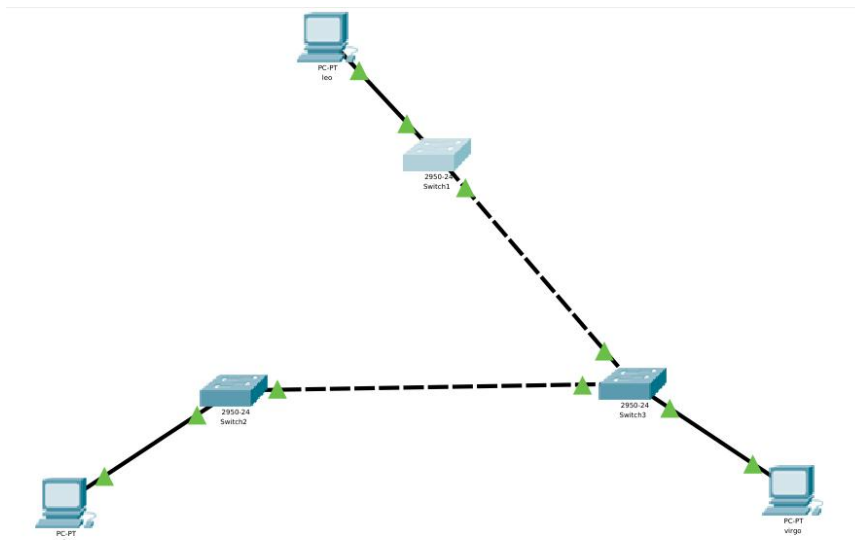Tugas 5A : ping antara PC Leo dengan PC Virgo

Tugas 6A : meyimpan konfigurasi jaringan
- pilih folder file
- pilih save, kemudian beri nama lab2.pkt

KEGIATAN 2

Tugas 9A :

Hasil topologi

```
SW1>show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     0001.96CE.0A33
             This bridge is the root
             Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec

  Bridge ID  Priority    32769  (priority 32768 sys-id-ext 1)
             Address     0001.96CE.0A33
             Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec
             Aging Time  20

Interface        Role Sts Cost     Prio.Nbr Type
---------------- ---- --- --------- -------- --------------------------------
Fa0/3            Desg FWD 19        128.3    P2p
Fa0/1            Desg FWD 19        128.1    P2p

SW1>
```

Default sw1

```
SW2>show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     0001.96CE.0A33
             Cost        38
             Port        3(FastEthernet0/3)
             Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec

  Bridge ID  Priority    32769  (priority 32768 sys-id-ext 1)
             Address     000D.BD74.DB94
             Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec
             Aging Time  20

Interface        Role Sts Cost     Prio.Nbr Type
---------------- ---- --- --------- -------- --------------------------------
Fa0/1            Desg FWD 19        128.1    P2p
Fa0/3            Root FWD 19        128.3    P2p

SW2>
```

Default sw2

```
SW3>show spanning-tree
VLAN0001
  Spanning tree enabled protocol ieee
  Root ID    Priority    32769
             Address     0001.96CE.0A33
             Cost        19
             Port        3(FastEthernet0/3)
             Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec

  Bridge ID  Priority    32769  (priority 32768 sys-id-ext 1)
             Address     0060.5CCE.BA99
             Hello Time  2 sec  Max Age 20 sec  Forward Delay 15 sec
             Aging Time  20

Interface        Role Sts Cost     Prio.Nbr Type
---------------- ---- --- --------- -------- -------------------------------
Fa0/3            Root FWD 19        128.3    P2p
Fa0/1            Desg FWD 19        128.1    P2p
Fa0/2            Desg FWD 19        128.2    P2p

SW3>
```

Default sw3

SW1

No	Variabel	Nilai
1.	Root ID	32769
2.	Priority	-
3.	MAC Address	0001.96CE.0A33
4.	Bridge ID	32769
5.	Cost (0/3;0/1)	19,19
6.	Hello Time	2 sec
7.	Max Age	20 sec
8.	Forward Delay	15 sec

SW2

No	Variabel	Nilai
1.	Root ID	32769
2.	Priority	-
3.	MAC Address	000D.BD74.DB94
4.	Bridge ID	32769
5.	Cost (0/1;0/3)	19,19
6.	Hello Time	2 sec
7.	Max Age	20 sec
8.	Forward Delay	15 sec

SW3

No	Variabel	Nilai
1.	Root ID	32769
2.	Priority	-
3.	MAC Address	0060.5CCE.BA99
4.	Bridge ID	32769
5.	Cost (0/1;0/2;0/3)	19,19,19
6.	Hello Time	2 sec
7.	Max Age	20 sec
8.	Forward Delay	15 sec

Kondisi Default
- root bridge : SW1
- designated bridge : -
- root port : SW2, SW3
- designated port : -
- forwarding : SW1, SW2, SW3
- blocking : -

Ping PC Leo ke PC Virgo