

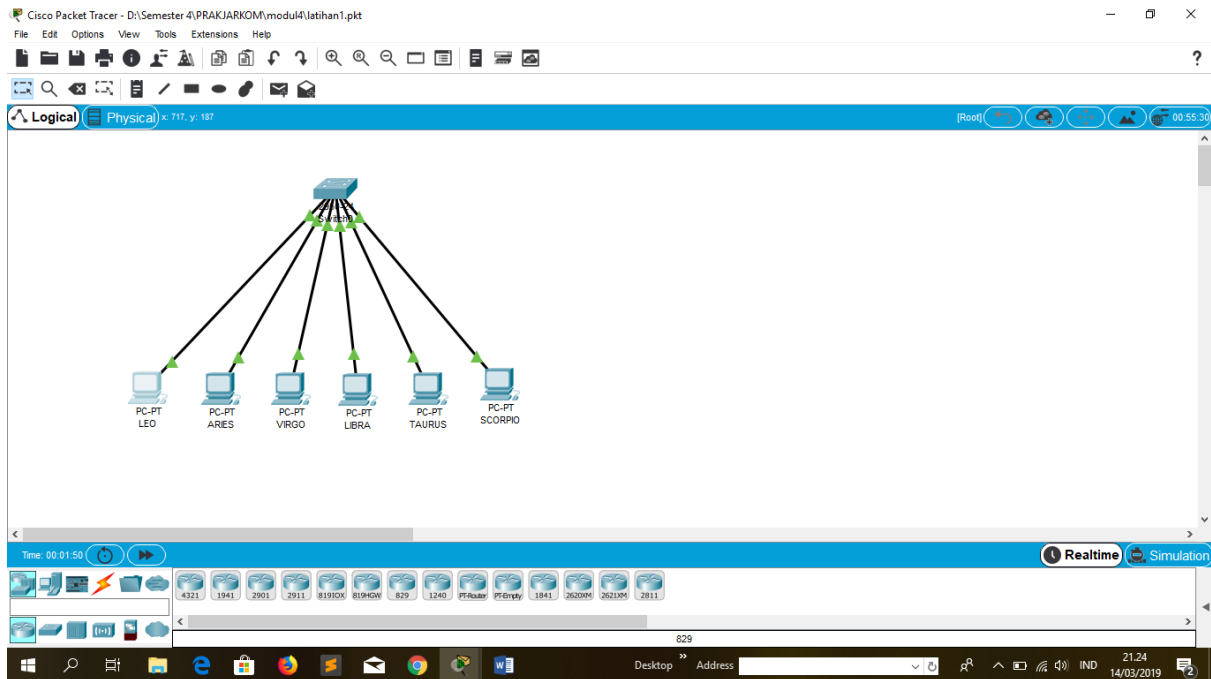
Nama : Risa Ayu Agustina

NIM : L200170049

Kelas : B

Modul : 4

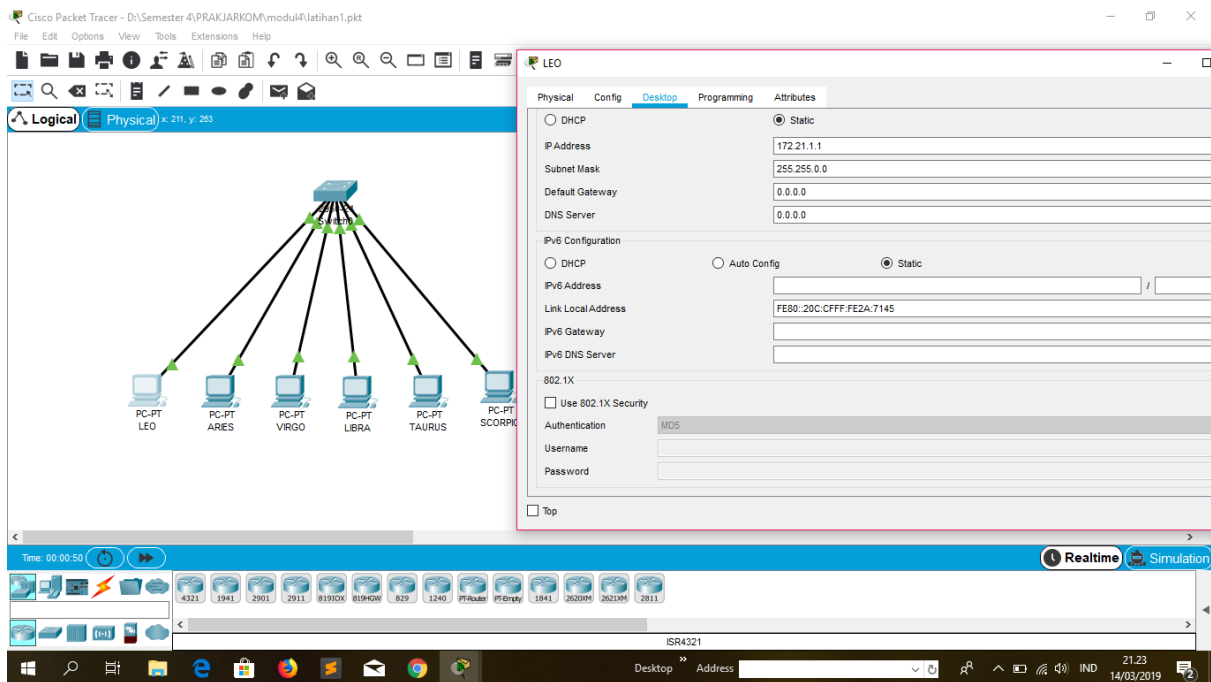
Latihan 1:



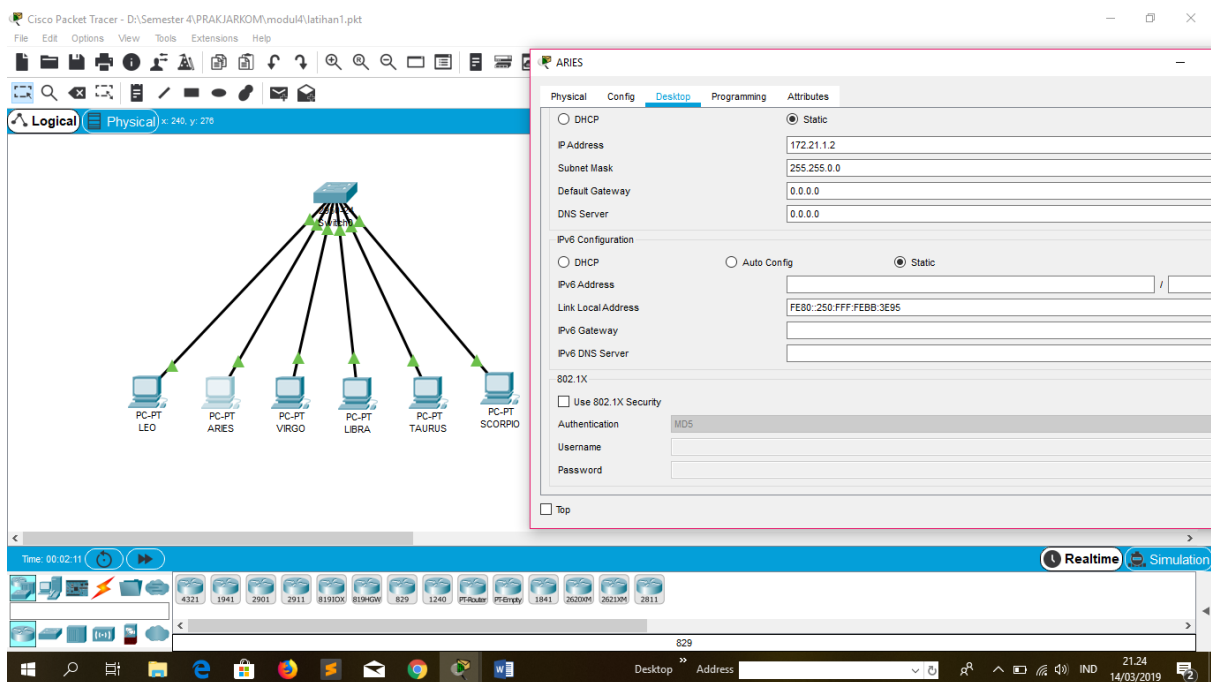
Menggunakan packet tracer membuat topologi seperti gambar diatas menggunakan switch. Dengan memberi nama masing-masing perangkat dengan :

Pada SW1(Switch)

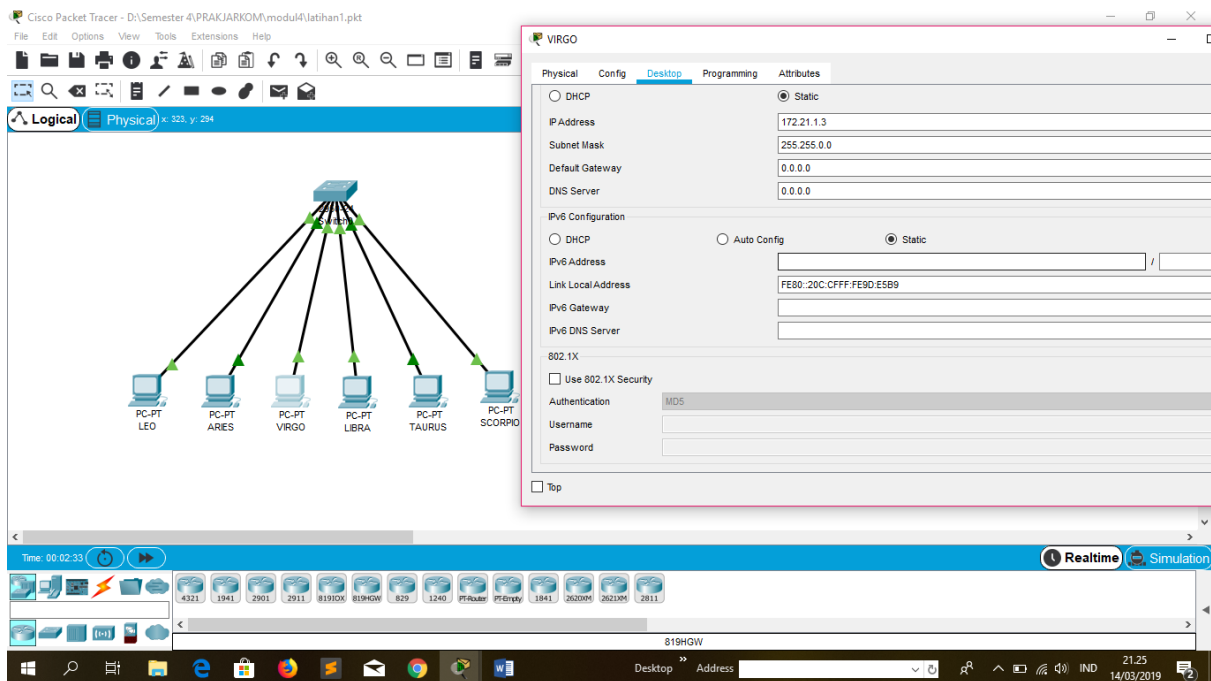
- *Leo (PC0)*
- *Aries (PC1)*
- *Virgo (PC2)*
- *Pisces (PC3)*
- *Taurus (PC4), dan*
- *Scorpio (PC5)*



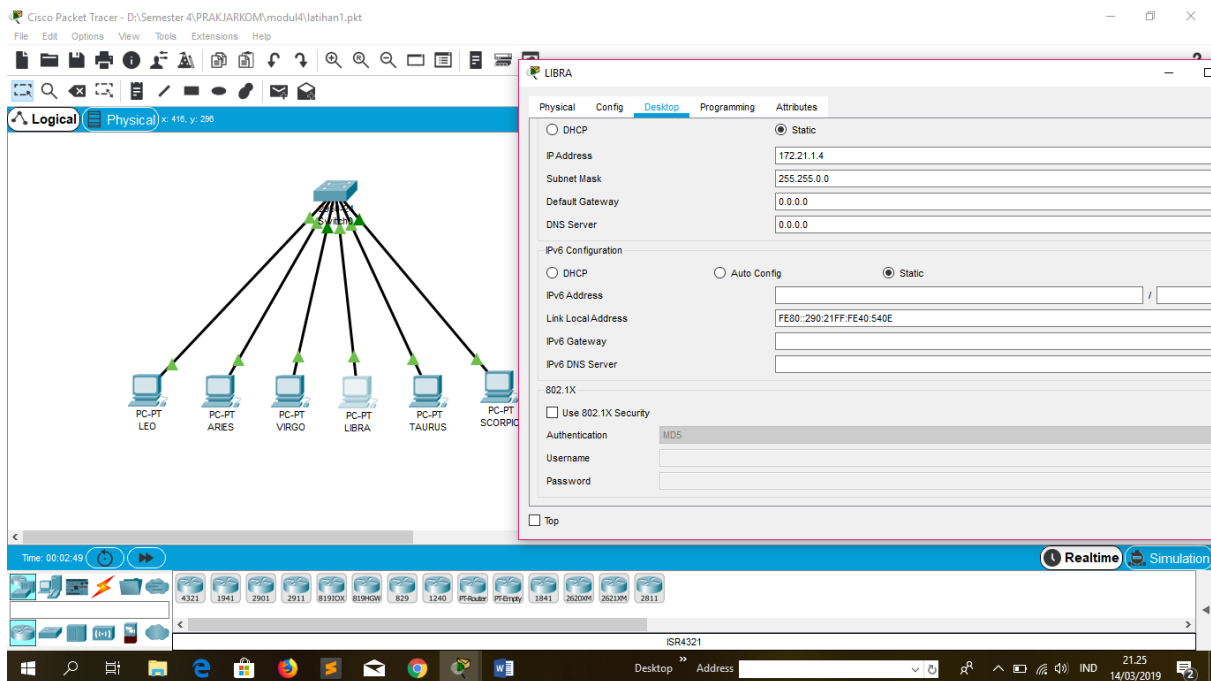
Memberikan IP Address pada PC0/LEO "172.21.1.1"



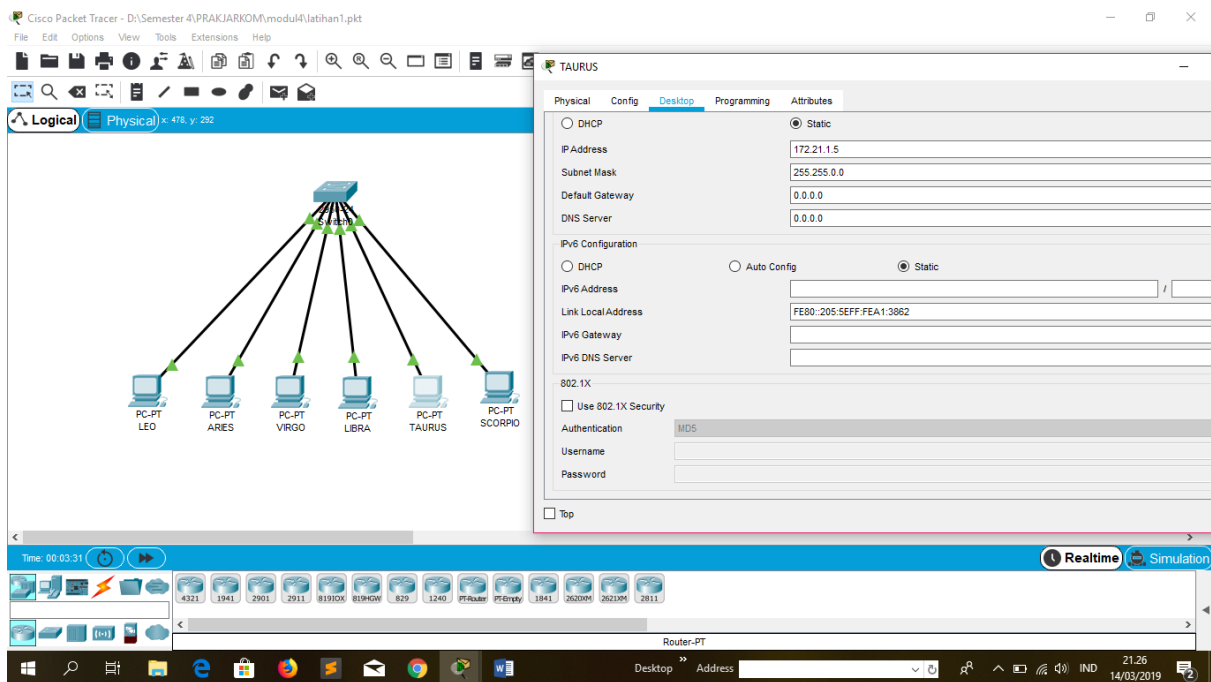
Memberikan IP Address pada PC1/ARIES "172.21.1.2"



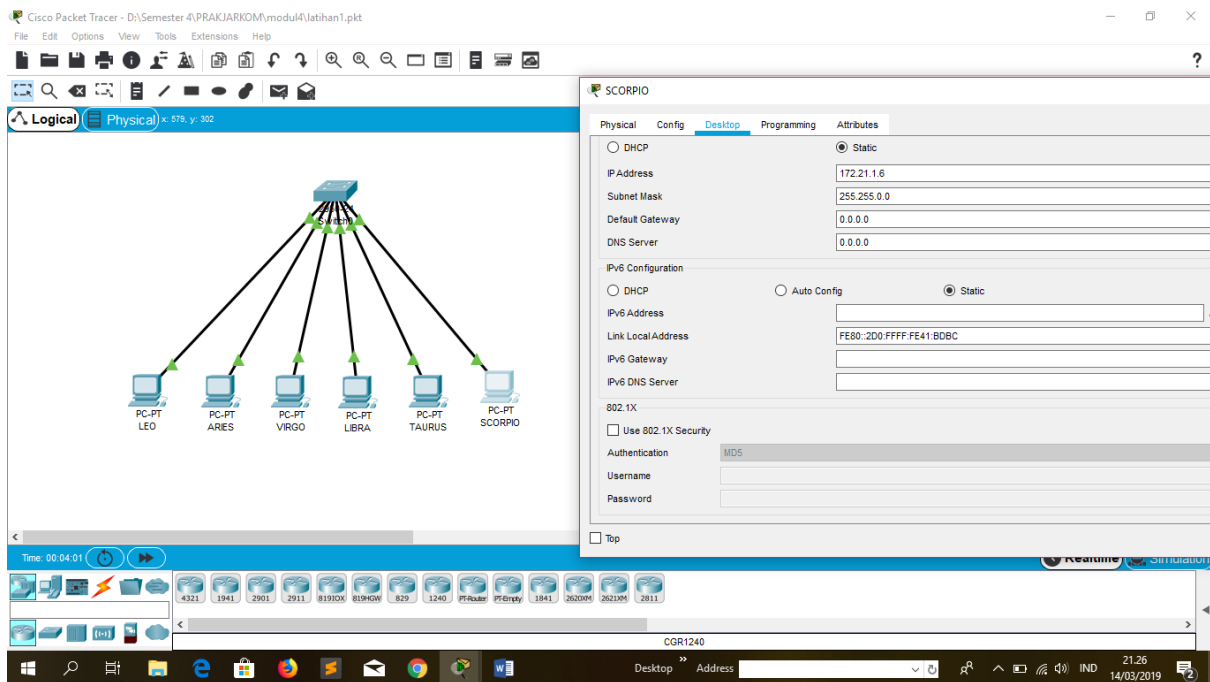
Memberikan IP Address pada PC2/VIRGO "172.21.1.3"



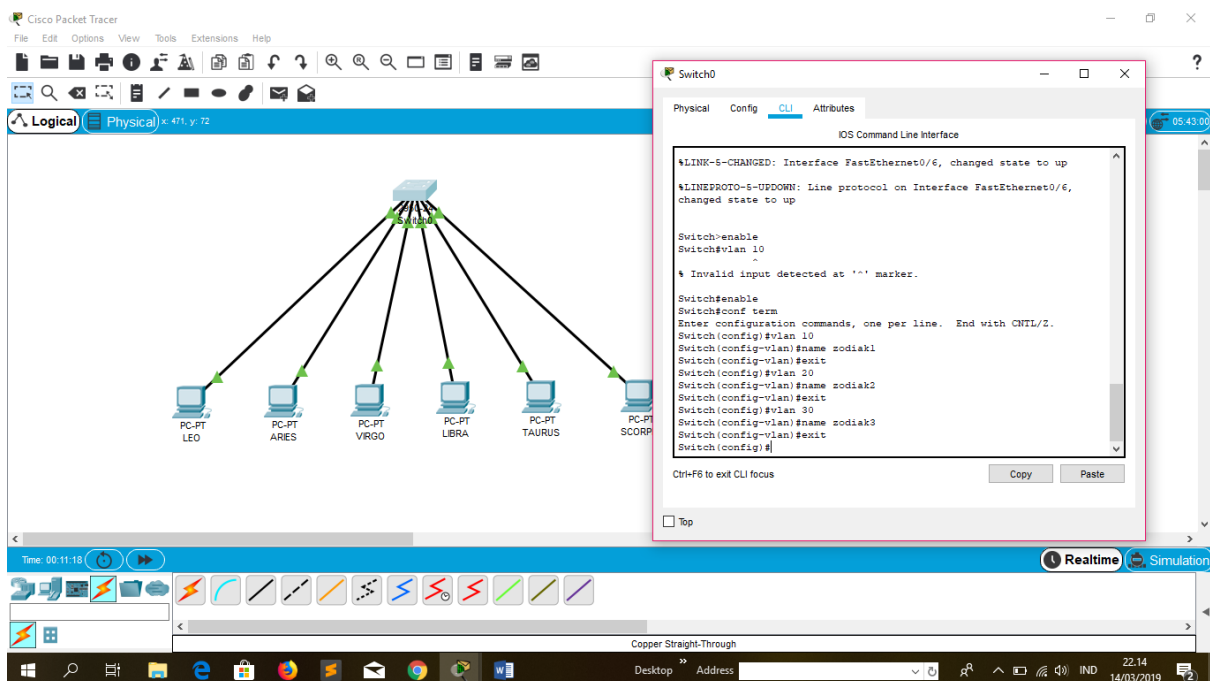
Memberikan IP Address pada PC3/LIBRA "172.21.1.4"



Memberikan IP Address pada PC5/TAURUS "172.21.1.5"



Memberikan IP Address pada PC6/SCORPIO "172.21.1.6"



Mengkonfigurasi switch dengan mode user atau mode privileged, dengan membuat 3 VLAN dengan nama Zodiak1, Zodiak2, Zodiak3. Dengan cara :

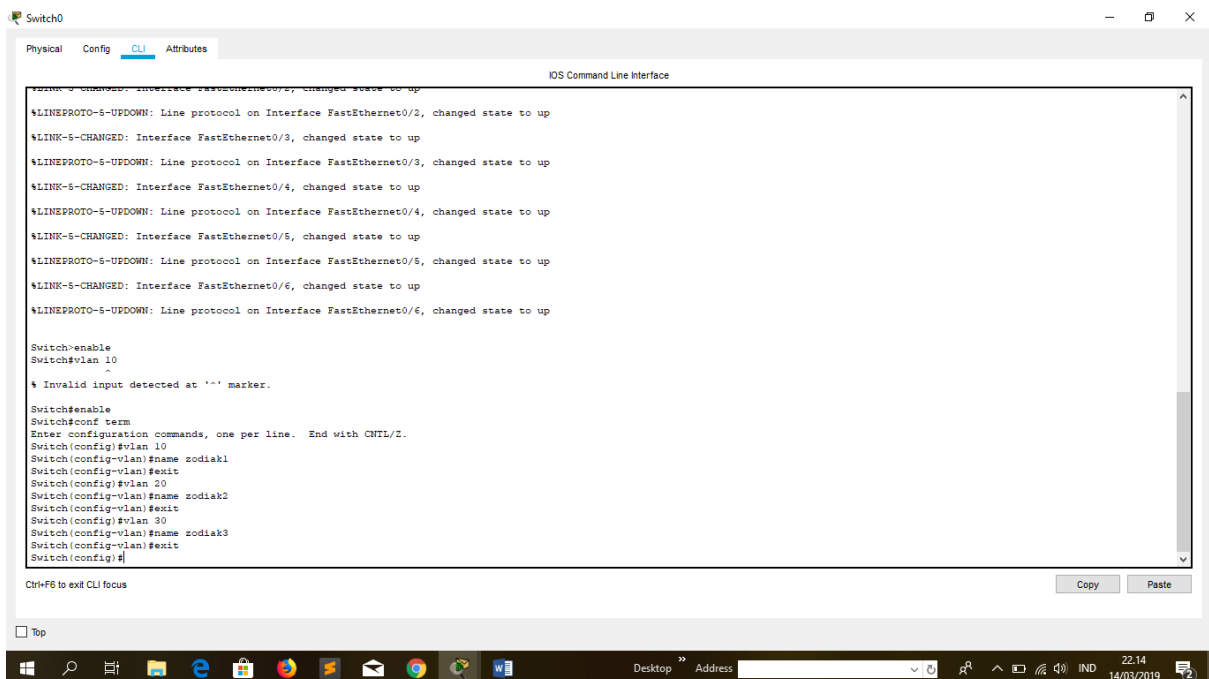
- *Klik pada SWITCH kemudian klik CLI, lalu menuliskan langkah pengoperasian seperti dibawah ini : (Sebelum ada tulisan SWITCH# maka kita harus melaukan operasi (CTRL+Z => ENTER sampai ada tulisan SWITCH#)), kemudian ketikkan*

a. Switch#enable

- b. *Switch#conf term*
- c. *Switch(config)#vlan 10*
- d. *Switch(config-vlan)#nama zodiak1*
- e. *Switch(config-vlan)#exit*
- f. *Switch(config)#vlan 20*
- g. *Switch(config-vlan)#name zodiak2*
- h. *Switch(config-vlan)#exit*
- i. *Switch(config)#vlan 30*
- j. *Switch(config-vlan)#name zodiak3*
- k. *Switch(config-vlan)#exit*

Pada mode Konfigurasi, konfigurasi port-port switch ke dalam VLAN sebagai berikut :

- *Zodiak1 = leo (0) dan libra(4)*
- *Zodiak2 = aries (2) dan taurus(5)*
- *Zodiak3 = virgo (3) dan scorpio (6)*



Masuk pada mode Konfigurasi, kemudian :

- a. *Klik Fastethernet 0/1(di Configuration)*
- b. *Kemudian kembali ke CLI lalu ketikkan, switchport mode access*

- c. Ketik switchport access vlan 10
- d. Exit
- e. Klik Fastethernet 0/4 (di Configuration)
- f. Kemudian kembali ke CLI, lalu ketikkan switchport mode access
- g. Ketikkan switchport access vlan 10
- h. Exit

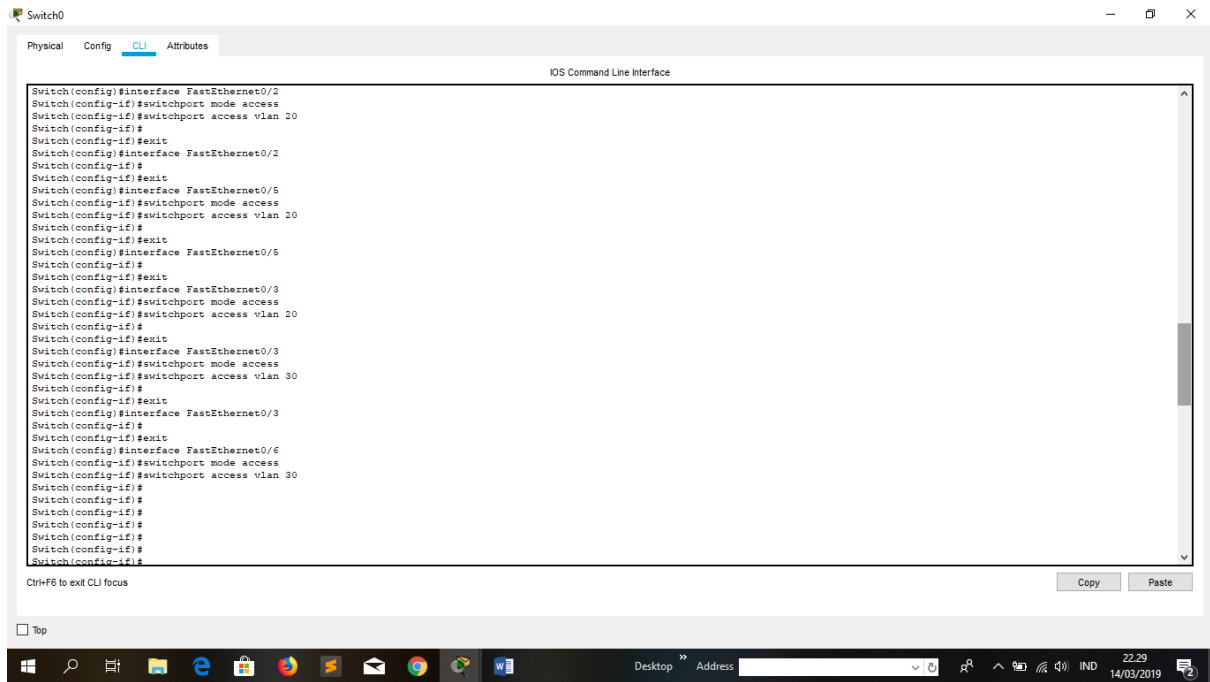
```

Switch#enable
Switch#conf term
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan 10
Switch(config-vlan)#name zodiak1
Switch(config-vlan)#exit
Switch(config)#vlan 20
Switch(config-vlan)#name zodiak2
Switch(config-vlan)#exit
Switch(config)#vlan 30
Switch(config-vlan)#name zodiak3
Switch(config-vlan)#exit
Switch(config)#^Z
Switch#
%SYS-5-CONFIG_I: Configured from console by console
Switch#
Switch#configure terminal
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#interface FastEthernet0/1
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan10
Switch(config-if)#
% Invalid input detected at '' ' marker.
Switch(config-if)#switchport access vlan 10
Switch(config-if)#
Switch(config-if)#exit
Switch(config)#interface FastEthernet0/1
Switch(config-if)#
Switch(config-if)#exit
Switch(config)#interface FastEthernet0/4
Switch(config-if)#switchport mode access
Switch(config-if)#switch access vlan 10
Switch(config-if)#exit
Switch(config)#
Switch(config)#interface FastEthernet0/4
Switch(config-if)#
Switch(config-if)#exit
Switch(config-if)#exit

```

Masuk pada mode Configuration, kemudian :

- a. Klik Fastethernet 0/2 (di Configuration)
- b. Kemudian kembali ke CLI lalu, ketikkan switchport mode access
- c. Ketik switchport access vlan 20
- d. Exit
- e. Klik Fastethernet 0/5 (di Configuration)
- f. Kemudian kembali ke CLI, lalu ketikkan switchport mode access
- g. Ketikkan switchport access vlan 20
- h. Exit



Masuk pada mode Configuration, kemudian :

- a. Klik Fastethernet 0/3 (di Configuration)*
- b. Kemudian kembali ke CLI lalu ketikkan switchport mode access*
- c. Ketik switchport access vlan 30*
- d. Exit*
- e. Klik Fastethernet 0/6 (di Configuration)*
- f. Kemudian kembali ke CLI, lalu ketikkan switchport mode access*
- g. Ketikkan switchport access vlan 30*
- h. Exit*


```
Switch0
Physical Config CLI Attributes
IOS Command Line Interface

Switch(config-if)#exit
Switch(config)#interface FastEthernet0/3
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 30
Switch(config-if)#
Switch(config-if)#exit
Switch(config)#interface FastEthernet0/4
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 30
Switch(config-if)#
Switch(config-if)#
Switch(config-if)#
Switch(config-if)#
Switch(config-if)#
Switch(config-if)#
Switch(config-if)#
Switch(config-if)#
Switch(config-if)#
Switch(config-if)#
Switch(config-if)#exit
Switch(config)#
Switch(config)#
Switch(config)#
Switch(config)#
Switch(config)#
Switch(config)#
Switch(config)#show vlan brief
Switch(config)#
% Invalid input detected at '^' marker.

Switch(config)#2
Switch#
$SYS-5-CONFIG_I: Configured from console by console

Ctrl+F6 to exit CLI focus
```

*Kemudian ketikkan "Exit" kemudian enter sampe tulisan menjadi "Switch(config)#".
Lalu, ketikkan show vlan brief.*

```
$SYS-5-CONFIG_I: Configured from console by console
Switch#show vlan brief

VLAN Name                Status    Ports
-----
1    default                active    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
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#show vlan id 10

VLAN Name                Status    Ports
-----
10   zodiak1                active    Fa0/1, Fa0/4

VLAN Type  SAID      MTU   Parent RingNo BridgeNo Stp  BrgdMode Trans1 Trans2
-----
10   enet  100010   1500   -     -     -     -     -     0     0

Switch#show vlan id 20

VLAN Name                Status    Ports
-----
20   zodiak2                active    Fa0/2, Fa0/5

VLAN Type  SAID      MTU   Parent RingNo BridgeNo Stp  BrgdMode Trans1 Trans2
-----
20   enet  100020   1500   -     -     -     -     -     0     0

Ctrl+F6 to exit CLI focus
```

Ketikkan show vlan id 10 dan show vlan id 20 kemudian enter maka tampilan akan menjadi seperti itu.

```
Switch#show vlan id 20
VLAN Name                Status    Ports
-----
20  modlak2                active    Fa0/2, Fa0/6

VLAN Type  SAID      MTU   Parent RingNo BridgeNo Stp  BrgMode Transl Transl
-----
20  enet  100020   1500   -    -    -    -    -    0      0

Switch#show vlan id 30
VLAN Name                Status    Ports
-----
30  modlak3                active    Fa0/2, Fa0/6

VLAN Type  SAID      MTU   Parent RingNo BridgeNo Stp  BrgMode Transl Transl
-----
30  enet  100030   1500   -    -    -    -    -    0      0

Switch#
```

Ctrl+F8 to exit CLI focus

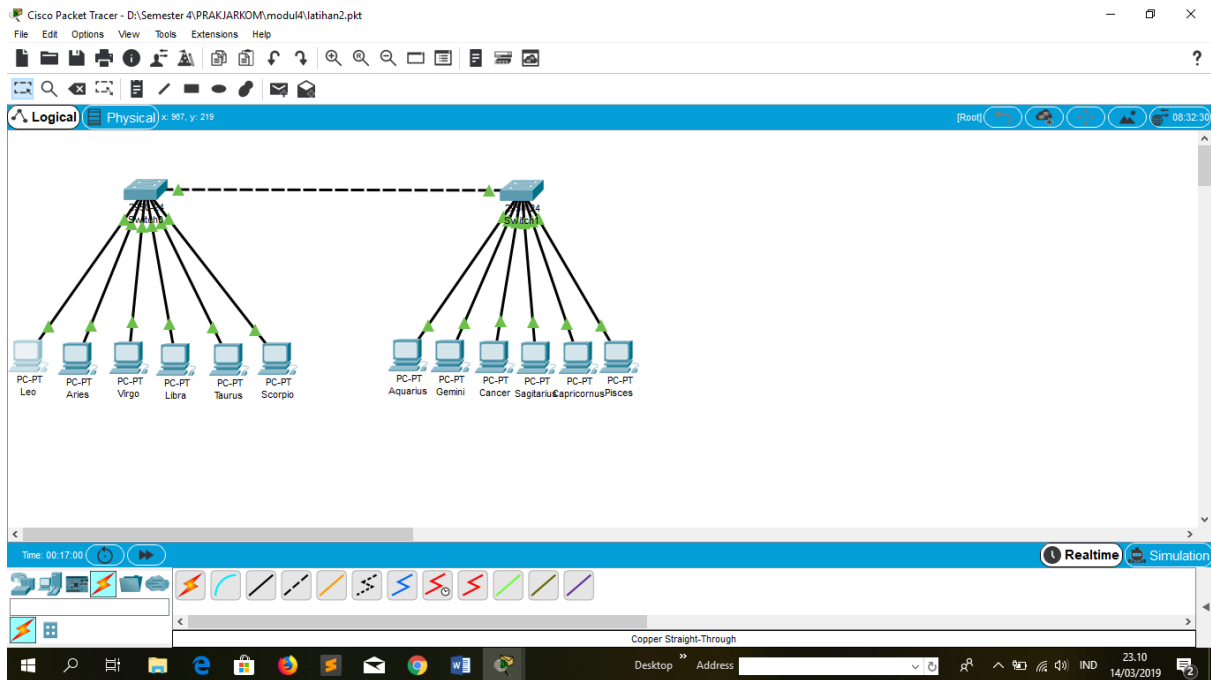
Copy Paste

Top

Desktop Address 22:30 14/03/2019

Ketikkan show vlan id 30 kemudian enter maka tampilan akan menjadi seperti itu.

Latihan 2



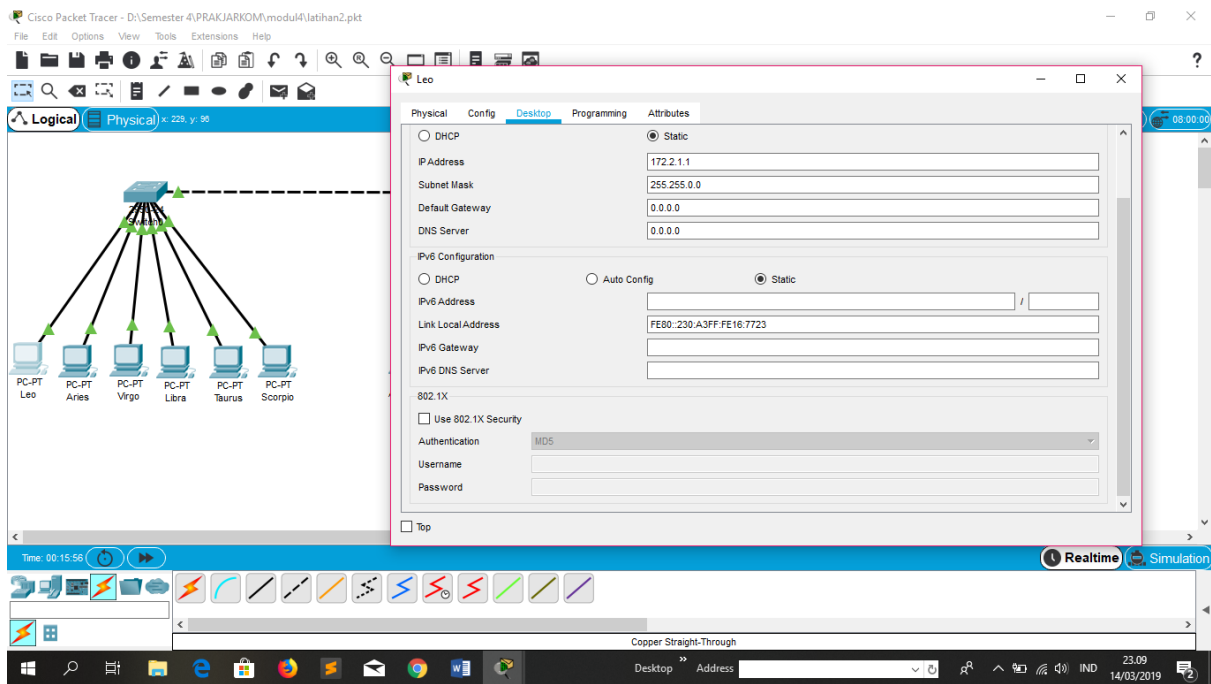
Menggunakan *cisco packet tracer* membuat topologi seperti gambar diatas dengan menggunakan switch *Catalyst 2950*. Kemudian, memberi nama masing-masing perangkat sebagai berikut :

Pada SW1 (switch 1)

- *Leo (PC0)*
- *Aries (PC1)*
- *Virgo (PC2)*
- *Libra (PC3)*
- *Taurus (PC4)*
- *Scorpio (PC5)*

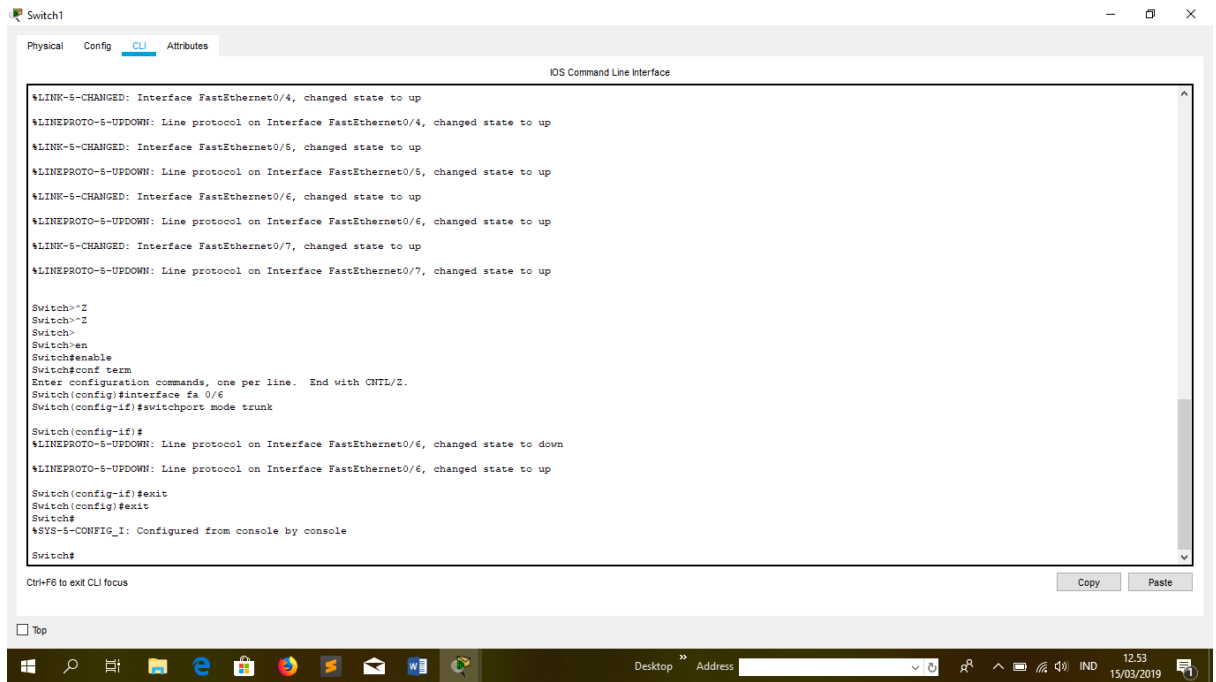
Pada SW2 (switch 2)

- *Aquarius (PC6)*
- *Gemini (PC7)*
- *Cancer (PC8)*
- *Sagittarius (PC9)*
- *Capricornus (PC10)*
- *Pisces (PC11)*



Memberikan IP Address pada masing-masing PC dengan nama dan alamat IP berikut ini:

- a. *Leo* = 172.21.1.1
- b. *Aries* = 172.21.1.2
- c. *Virgo* = 172.21.2.1
- d. *Libra* = 172.21.2.2
- e. *Taurus* = 172.21.3.1
- f. *Scorpio* = 172.21.3.2
- g. *Aquarius* = 172.21.1.3
- h. *Gemini* = 172.21.1.4
- i. *Cancer* = 172.21.2.3
- j. *Sagittarius* = 172.21.2.4
- k. *Capricorn* = 172.21.3.3
- l. *Pisces* = 172.21.3.4



Langkah konfigurasi VLAN Trunking pada SWITCH 2:

- 1. Switch#enable*
- 2. Switch#conf term*
- 3. Switch(config)#interface fa 0/6*
- 4. Switch(config)#switchport mode trunk*
- 5. Switch(config-if)#exit*
- 6. Switch(config-if)#exit*
- 7. Switch(config)#*
- 8. Switch*



```
Switch1
Physical Config CLI Attributes
IOS Command Line Interface

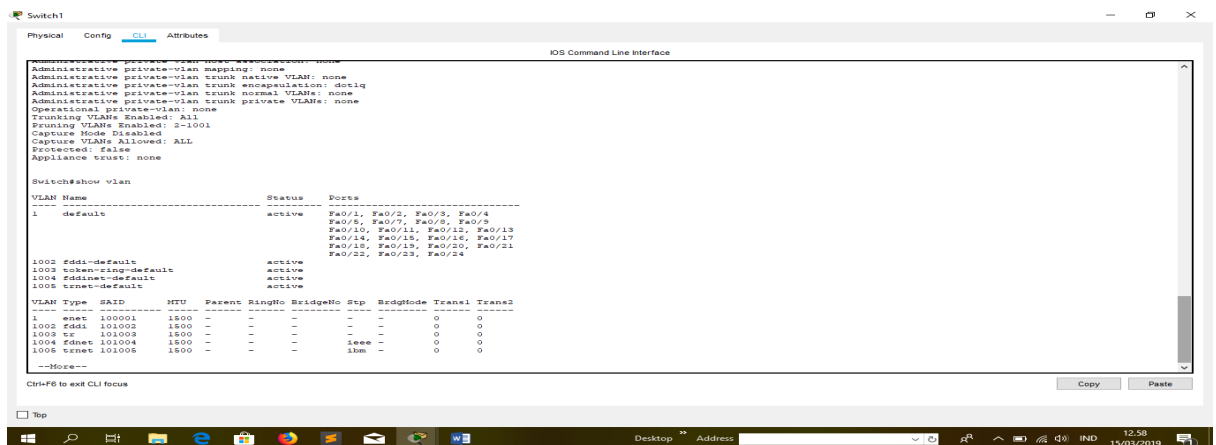
* Invalid input detected at '^' marker.

Switch#show interface fastethernet 0/6 switchport
Name: Fa0/6
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
Trunking VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL
Protected: false
Appliance trust: none
```

Pada mode user atau mode *privileged*, lihat konfigurasi trunking yang telah dibuat.

Langkah penngoperasian :

1. Tekan Enter
2. Masuk pada mode *privileged*
3. Ketikkan **show interface fastethernet 0/7 switchport**



```
Switch1
Physical Config CLI Attributes
IOS Command Line Interface

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 private VLANs: none
Operational private-vlan: none
Trunking VLANs Enabled: All
Trunking VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL
Protected: false
Appliance trust: none

Switch#show vlan

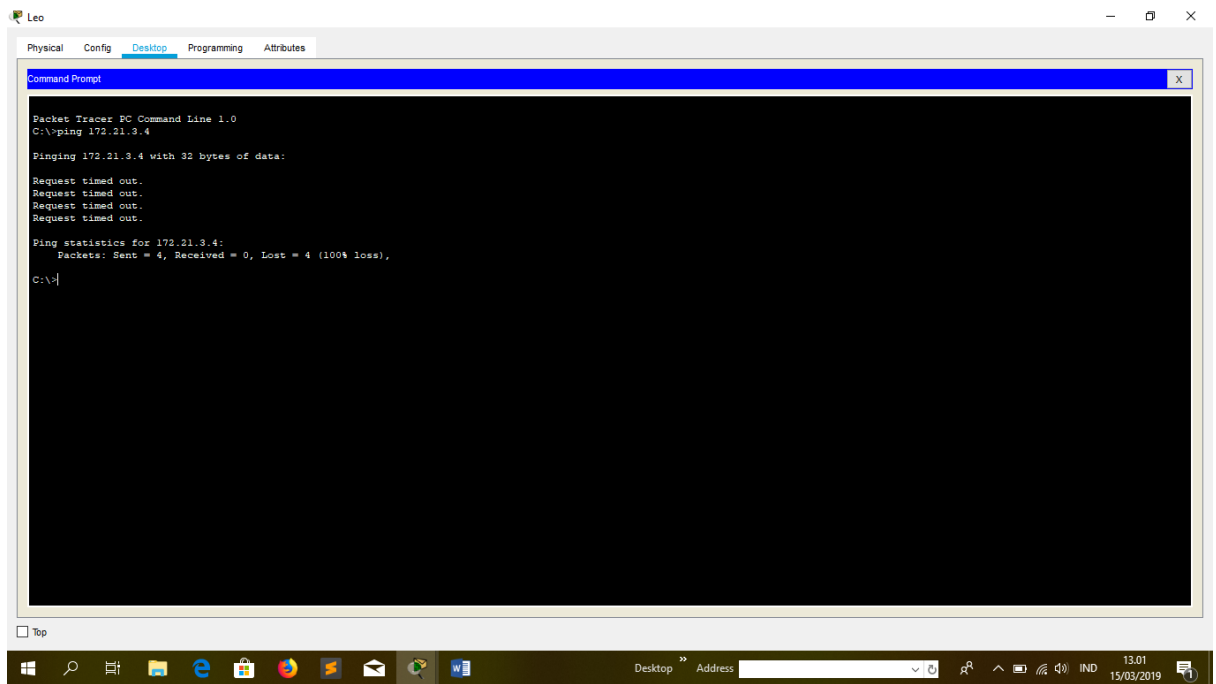
VLAN Name                Status    Ports
-----
1    default                active    Fa0/1, Fa0/2, Fa0/3, Fa0/4,
                                           Fa0/5, Fa0/7, Fa0/8, Fa0/9,
                                           Fa0/10, Fa0/11, Fa0/12, Fa0/13,
                                           Fa0/14, Fa0/15, Fa0/16, Fa0/17,
                                           Fa0/18, Fa0/19, Fa0/20, Fa0/21,
                                           Fa0/22, Fa0/23, Fa0/24

1002 fddi-default        active
1003 token-ring-default   active
1004 fddinet-default      active
1005 cernet-default       active

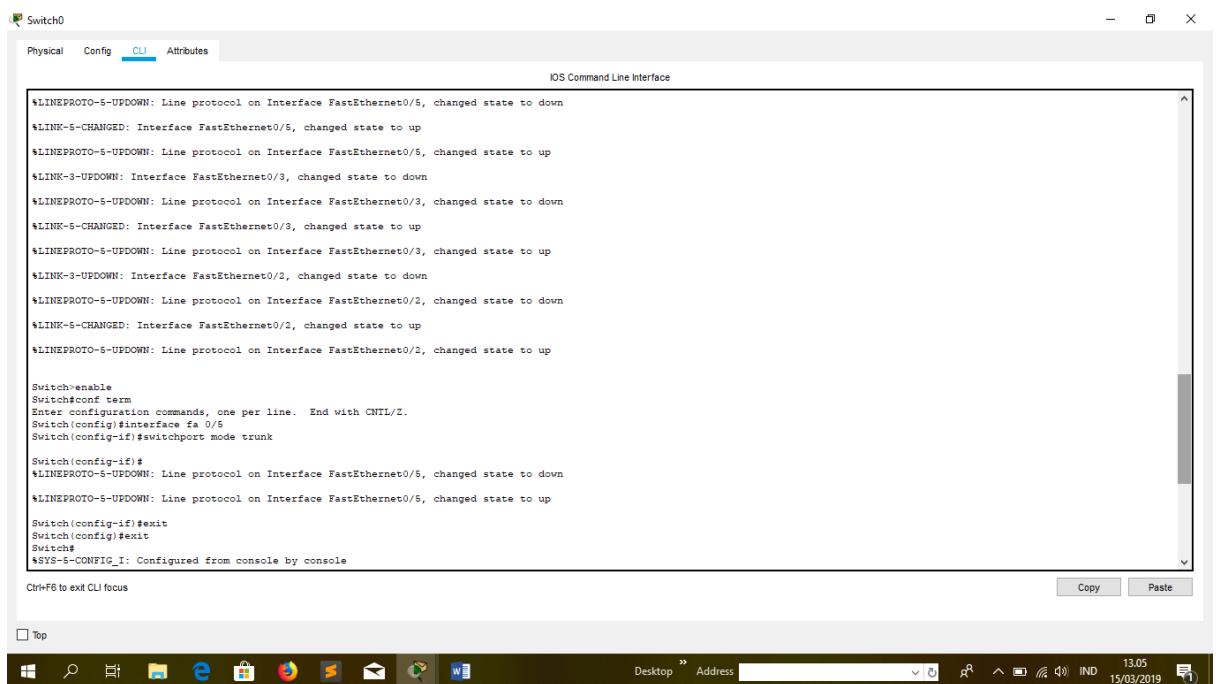
VLAN Type  SAID      MTU    Parent RingNo BridgeNo Stp    BdgPrio Transl Transl
-----
1    ether  100001    1500    -      -      -      -      0      0
1002 fddi  101002    1500    -      -      -      -      0      0
1003 tr   101003    1500    -      -      -      -      0      0
1004 fdnet 101004    1500    -      -      -      -      0      0
1005 cernet 101005    1500    -      -      -      -      0      0

--More--
Ctrl-F to exit CLI focus
```

Ketik **show vlan**



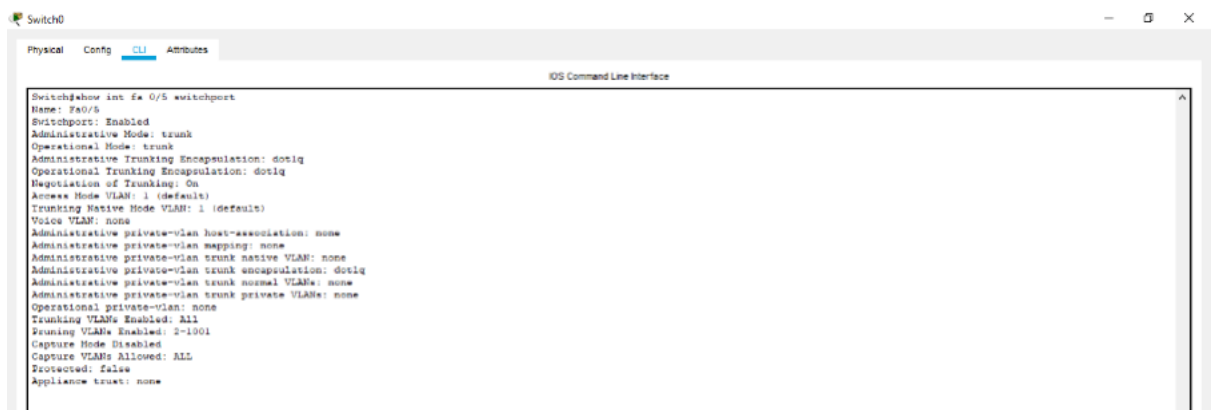
Lakukan Ping dari PC Leo ke PC Pisces



Langkah konfigurasi VLAN pada Switch 1:

1. *Switch#enable*
2. *Switch#conf term*

3. *Switch(config)#interface fa 0/6*
4. *Switch(config)#switchport mode trunk*
5. *Switch(config-if)#exit*
6. *Switch(config-if)#exit*
7. *Switch(config)#*
8. *Switch*



```

Switch0
Physical Config CLI Attributes
IOS Command Line Interface

Switch0#show int Fa 0/5 switchport
Name: Fa0/5
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
Trunking VLANs Enabled: 2-1001
Capture Mode Disabled
Capture VLANs Allowed: ALL
Protected: False
Appliance trust: none

```

Pada mode user atau mode privileged, lihat konfigurasi trunking yang telah dibuat.

Langkah penngoperasian :

4. *Tekan Enter*
5. *Masuk pada mode privileged*
6. *Ketikkan **show interface fastethernet 0/7 switchport***


```
Switch#show vlan

VLAN Name                Status    Ports
-----
1    default                active    Fa0/1, Fa0/2, Fa0/3, Fa0/4
                                           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

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  BrgdMode Trans1 Trans2
-----
1    enet  100001   1500    -     -     -     -     -       0       0
1002 fddi  101002   1500    -     -     -     -     -       0       0
1003 tr   101003   1500    -     -     -     -     -       0       0
1004 Ednet 101004   1500    -     -     -     -     -       0       0
1005 trnet 101005   1500    -     -     -     -     -       0       0

VLAN Type  SAID      MTU    Parent RingNo BridgeNo Stp  BrgdMode Trans1 Trans2
-----

Switch#
```

Ctrl+F6 to exit CLI focus

Tekan show vlan

Switch1

Physical Config CLI Attributes

IOS Command Line Interface

Press RETURN to get started.

```
Switch>show vlan

VLAN Name                Status    Ports
-----
1    default                active    Fa0/1, Fa0/2, Fa0/3, Fa0/4
                                           Fa0/5, 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

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  BrgdMode Trans1 Trans2
-----
1    enet  100001   1500    -     -     -     -     -       0       0
1002 fddi  101002   1500    -     -     -     -     -       0       0
1003 tr   101003   1500    -     -     -     -     -       0       0
1004 Ednet 101004   1500    -     -     -     -     -       0       0
1005 trnet 101005   1500    -     -     -     -     -       0       0

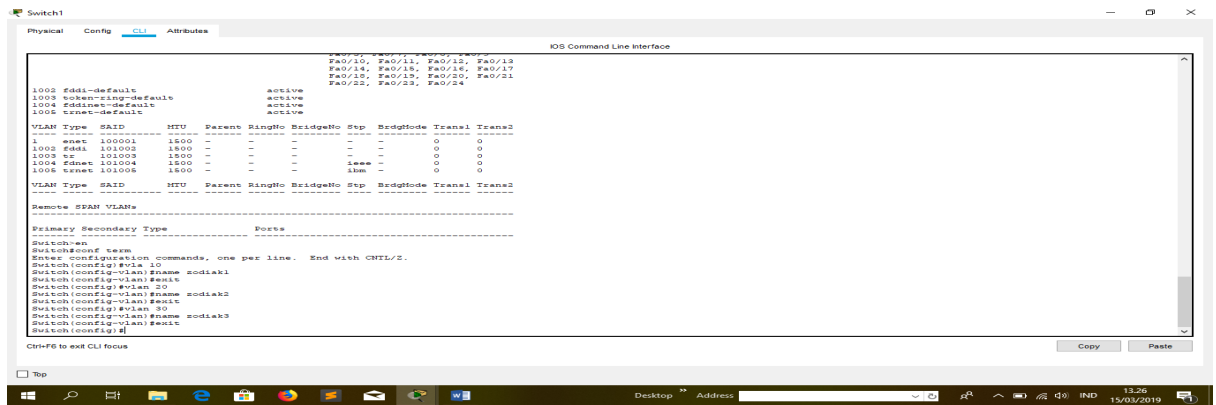
--More--
```

Ctrl+F6 to exit CLI focus

Copy Paste

Langkah pengoperasian untuk melihat konfigurasi :

- Tekan enter**
- Masuk pada CLI**
- Ketik *show vlan***



1. *Switch#enable*
2. *Switch#conf term*
3. *Switch(config)#interface fa 0/6*
4. *Switch(config)#switchport mode trunk*
5. *Switch(config-if)#exit*
6. *Switch(config-if)#exit*
7. *Switch(config)#*
8. *Switch*

```
Switch>enable
Switch#conf t
Enter configuration commands, one per line. End with CNTL/Z.
Switch(config)#vlan 10
Switch(config-vlan)#name zodiak1
Switch(config-vlan)#exit
Switch(config)#vlan 20
Switch(config-vlan)#name zodiak2
Switch(config-vlan)#exit
Switch(config)#vlan 30
Switch(config-vlan)#name zodiak3
Switch(config-vlan)#exit
Switch(config)#
Switch(config)#
Switch(config)#int fa 0/1
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 10
Switch(config-if)#int fa 0/2
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 10
Switch(config-if)#exit
Switch(config)#int fa 0/3
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 20
Switch(config-if)#int fa 0/4
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 20
Switch(config-if)#exit
Switch(config)#int fa 0/5
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 30
Switch(config-if)#int fa 0/6
Switch(config-if)#switchport mode access
Switch(config-if)#switchport access vlan 30
Switch(config-if)#exit
Switch(config)#
```

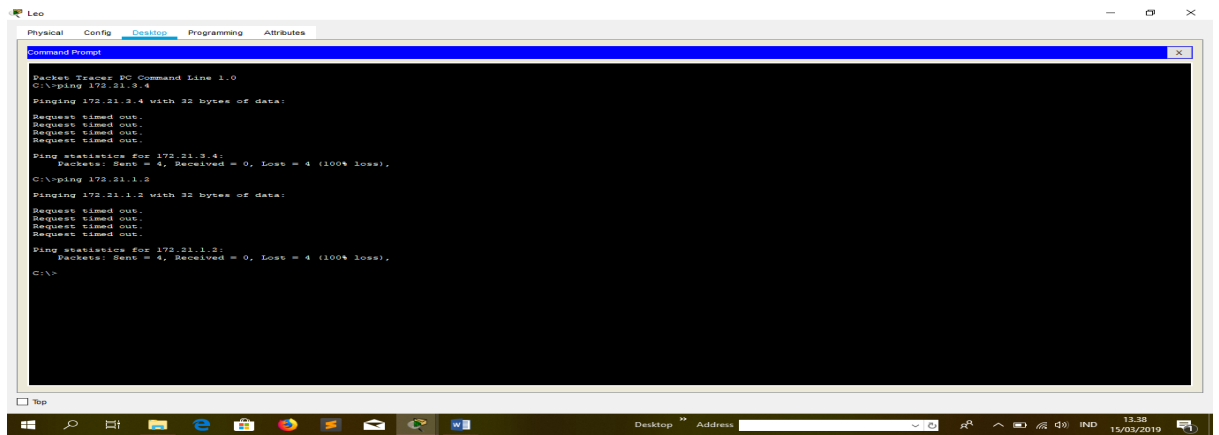
Ctrl+F6 to exit CLI focus

Copy Paste

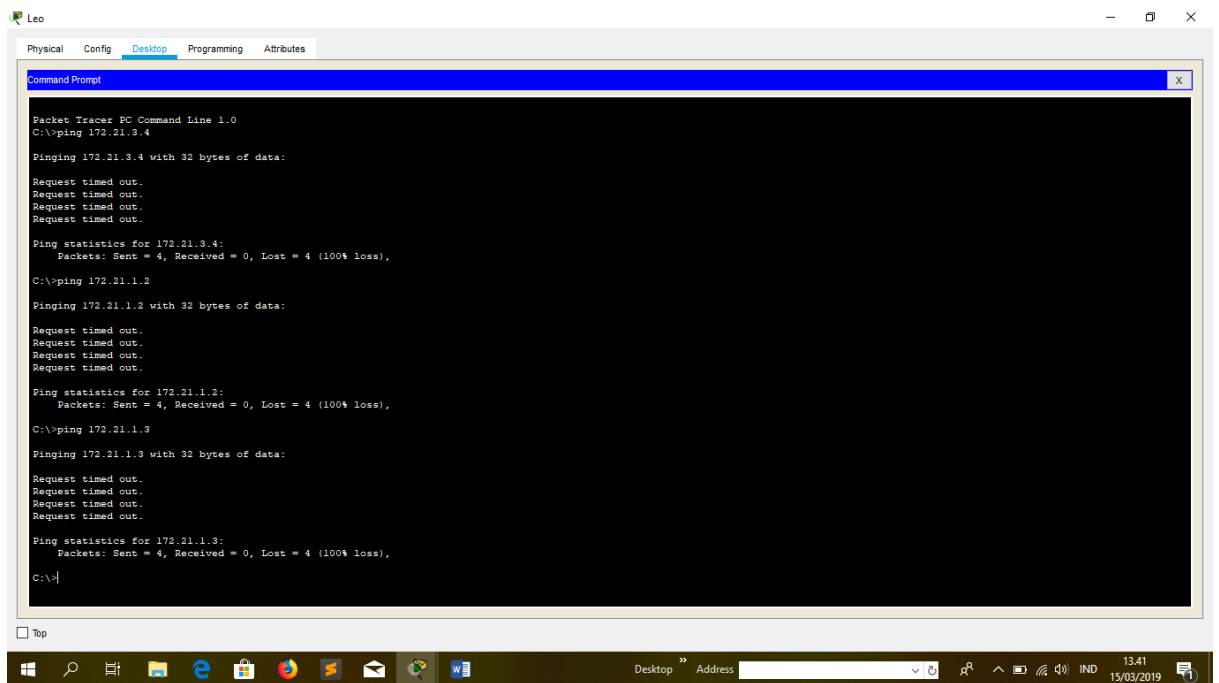
☐ Top

Pada mode configuration, konfigurasi port-port switch ke dalam VLAN zodiak1, zodiak2, dan zodiak3 dengan anggota sebagai berikut :

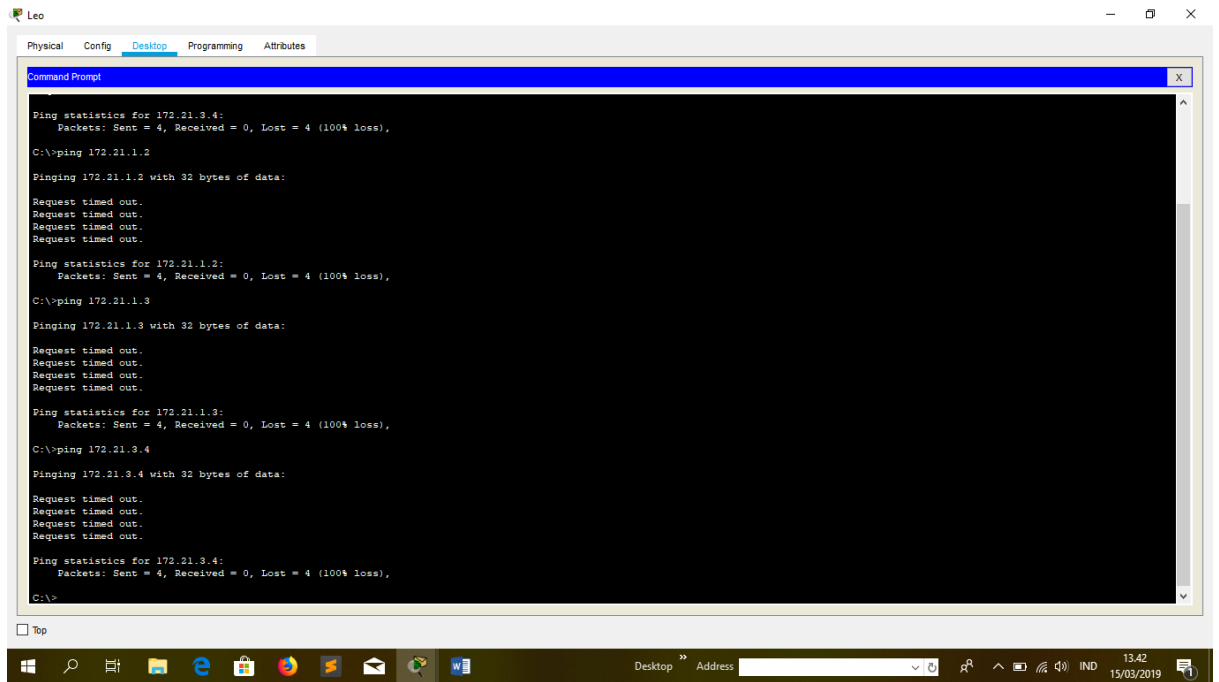
- *Zodiak1 = aquarius dan gemini*
- *Zodiak2 = cancer dan sagitarius*
- *Zodiak3 = capricornus dan pisces*



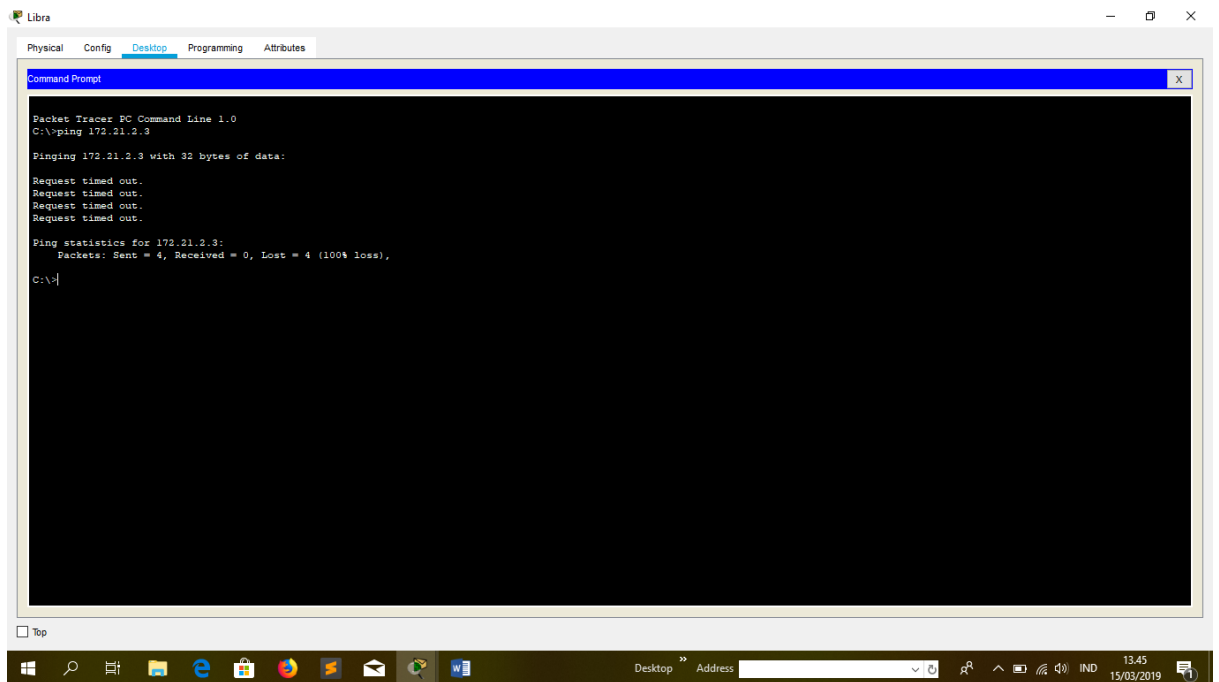
Ping PC Leo ke PC Aries



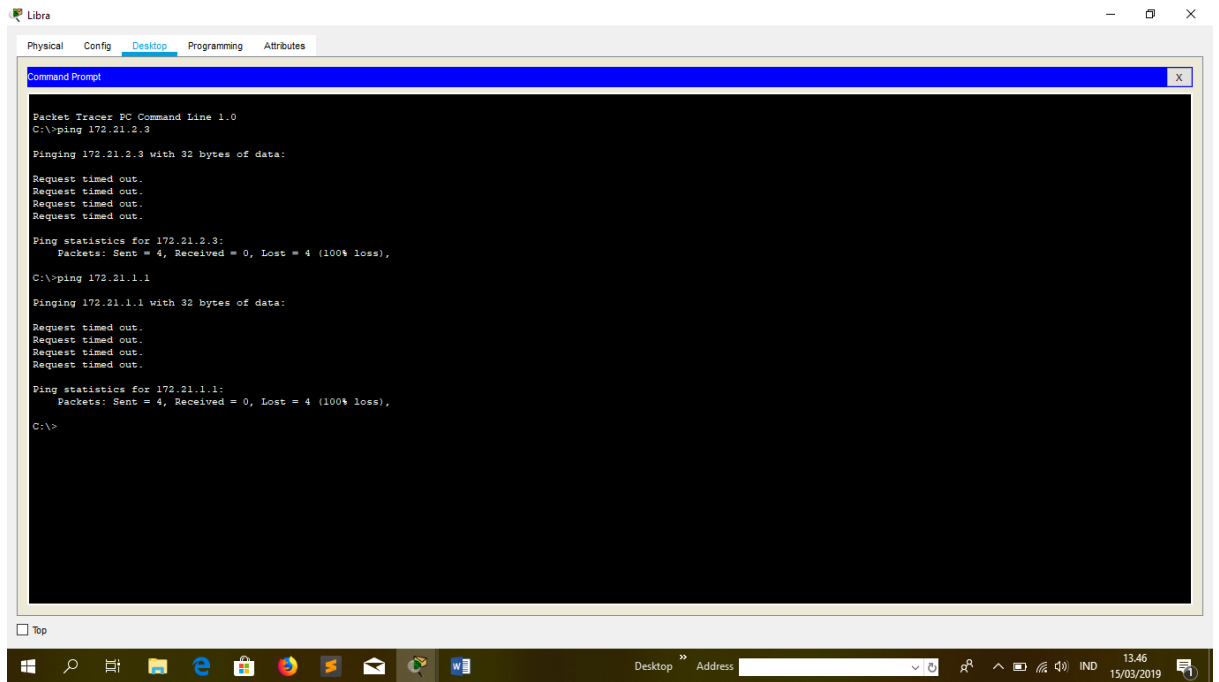
Ping PC Leo ke PC Aquarius



Ping PC Leo ke PC Pisces



Ping PC Libra ke PC Cancer



Ping PC Libra ke PC Leo