LAPORAN PRATIKUM CODELAB 1 dan 2 JARINGAN KOMPUTER 5F
MODUL 2

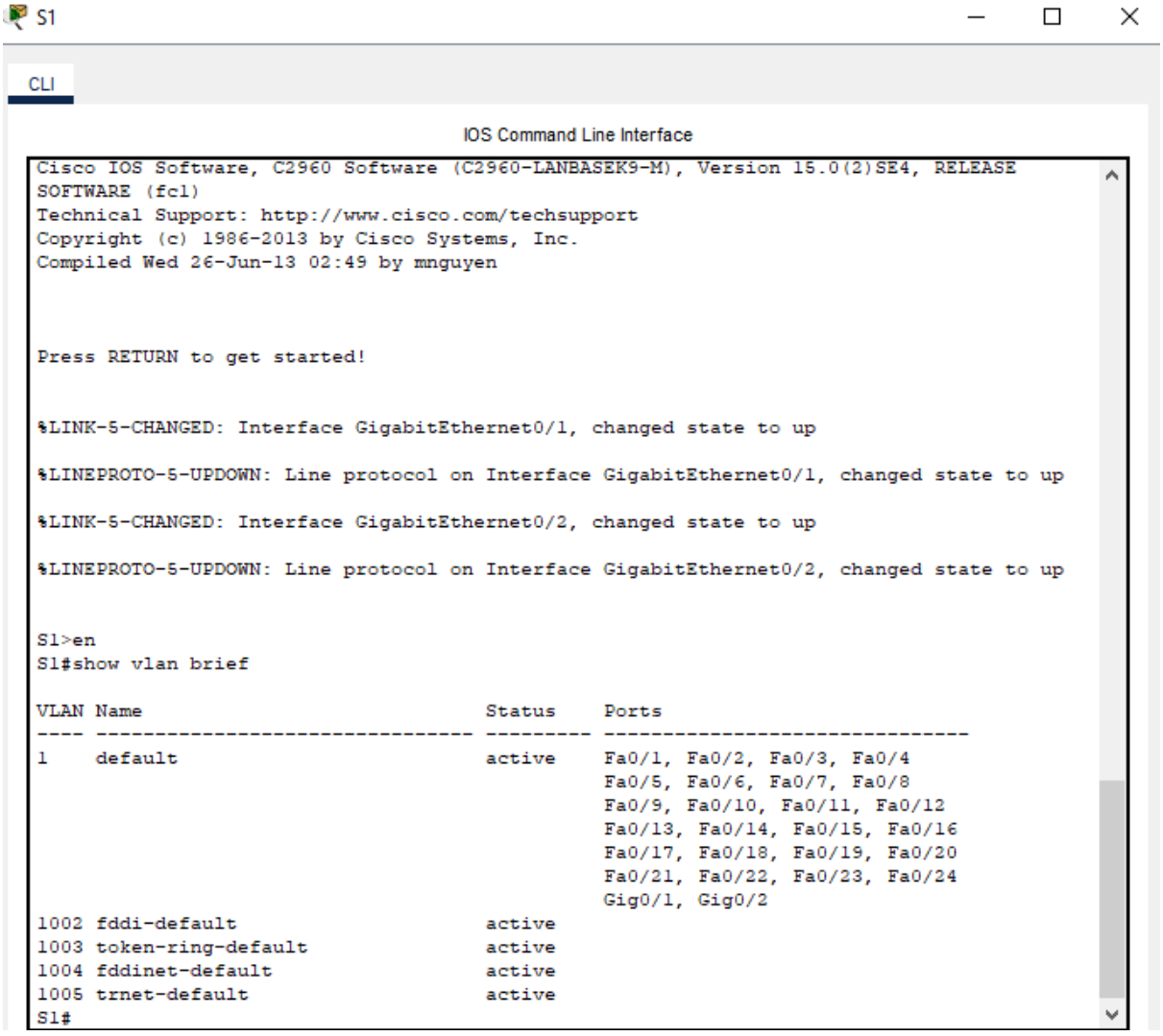
Nama : Yaasmin Ramadhani
NIM : 202410370110197
Kelas : Jaringan Komputer F

CODELAB 1

BAGIAN 1 : Melihat default dari konfigurasi VLAN yang tersedia.

1. **Tampilan VLAN saat ini**

   Buka Switch S1 lalu ketik show vlan brief untuk menampilkan semua VLAN yang dikonfigurasi, Secara default semua interface ditetapkan ke VLAN 1.



   Pastikan setiap PC dapat melakukan ping ke PC lain yang berbagi subnet yang sama.

2. **Memverifikasi konektivitas antar PC pada jaringan yang sama**
   - PC 1 dapat melakukan ping ke PC 4

PC1

Desktop Programming

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 172.17.10.24

Pinging 172.17.10.24 with 32 bytes of data:

Reply from 172.17.10.24: bytes=32 time=15ms TTL=128
Reply from 172.17.10.24: bytes=32 time<1ms TTL=128
Reply from 172.17.10.24: bytes=32 time<1ms TTL=128
Reply from 172.17.10.24: bytes=32 time<1ms TTL=128

Ping statistics for 172.17.10.24:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 15ms, Average = 3ms

C:\>
```

- PC 2 dapat melakukan ping ke PC 5

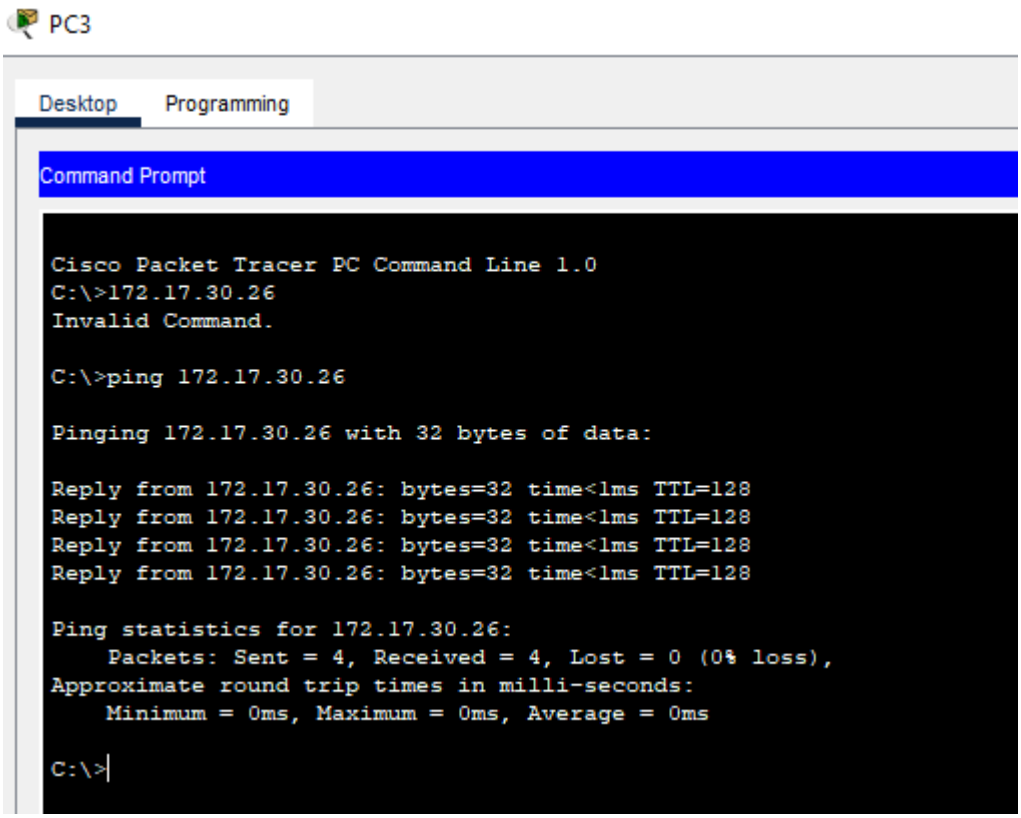
PC2

Desktop Programming

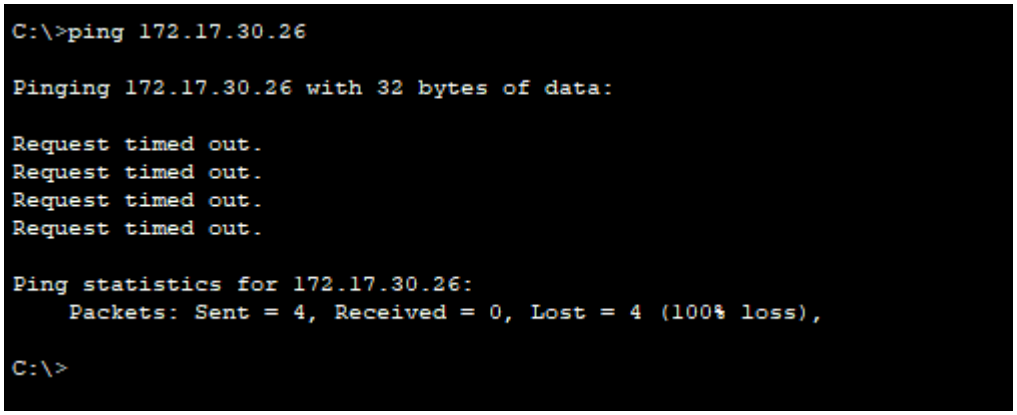
Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>ping 172.17.20.25

Pinging 172.17.20.25 with 32 bytes of data:

Reply from 172.17.20.25: bytes=32 time<1ms TTL=128
Reply from 172.17.20.25: bytes=32 time<1ms TTL=128
Reply from 172.17.20.25: bytes=32 time<1ms TTL=128
Reply from 172.17.20.25: bytes=32 time<1ms TTL=128

Ping statistics for 172.17.20.25:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\>
```

- PC 3 dapat melakukan ping ke PC 6



Jika melakukan ping ke host lain yang tidak sesuai dengan VLAN nya maka ping akan gagal karena berbeda ping.
PC 1 tidak dapat melakukan ping ke PC 6

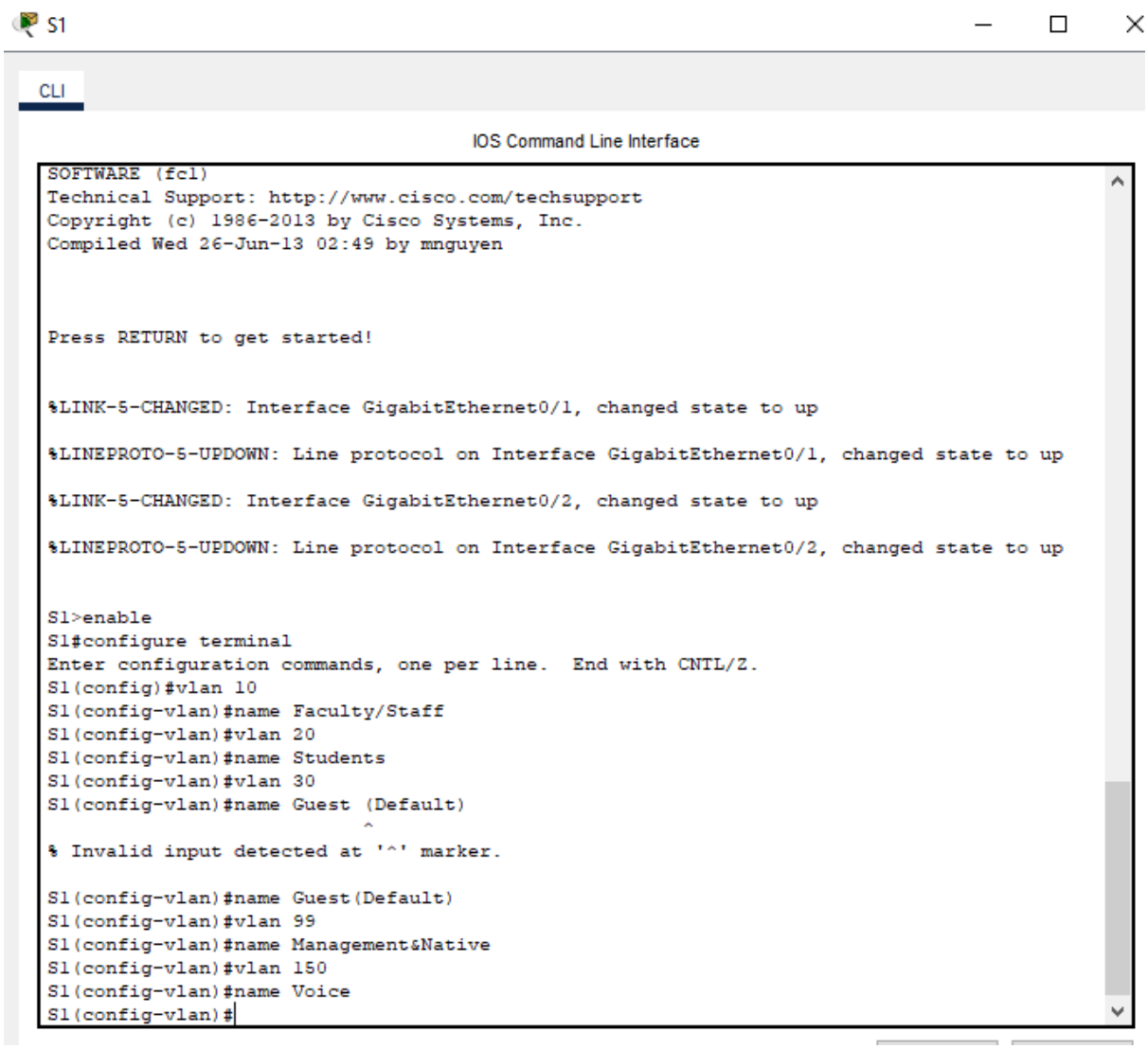


PERTANYAAN:
Apa manfaat yang dapat diberikan VLAn ke jaringan?
Vlan berfungsi memisahkan jaringan menjadi beberapa segmen logis guna meningkatkan keamanan,mengurangi broadcast.mempercepat kinerja jaringan,dan memudahkan proses pengelolaan dan pengaturan jaringan.

BAGIAN 2: Konfigurasi VLAN

1. **Buat dan beri nama VLAN pada S1 sesuai dengan:**

- VLAN 10: Faculty/Staff
- VLAN 20: Students
- VLAN 30: Guest (Default)
- VLAN 99: Management&Native
- VLAN 150: VOICE



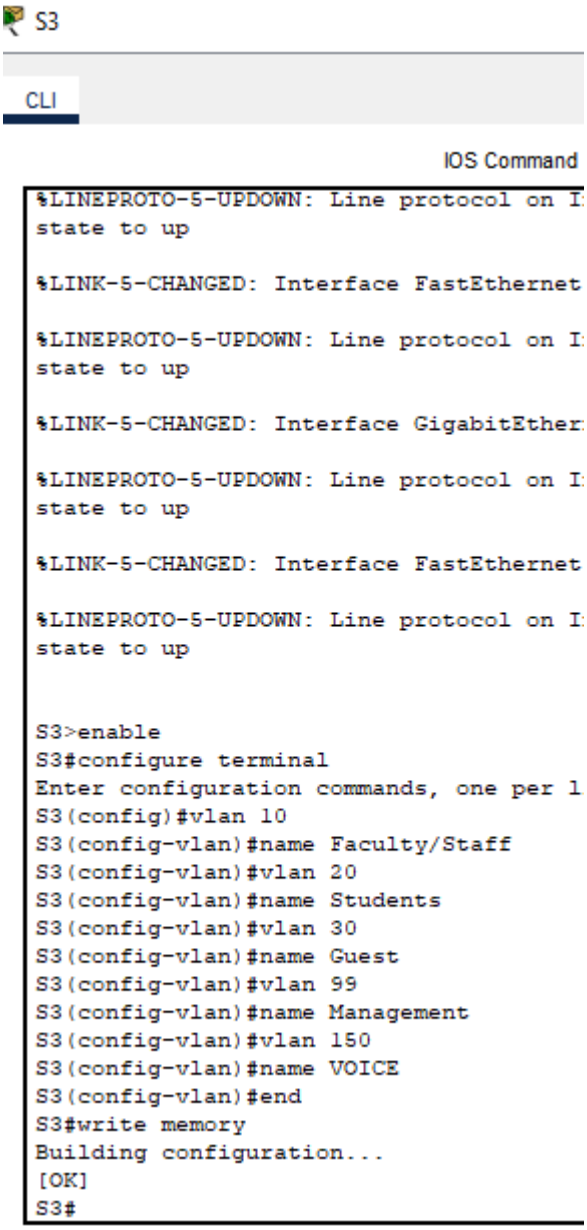
2. **Beri nama VLAN pada S2 dan S3 dengan perintah yang sama seperti sebelumnya untuk memberi nama.**

S2

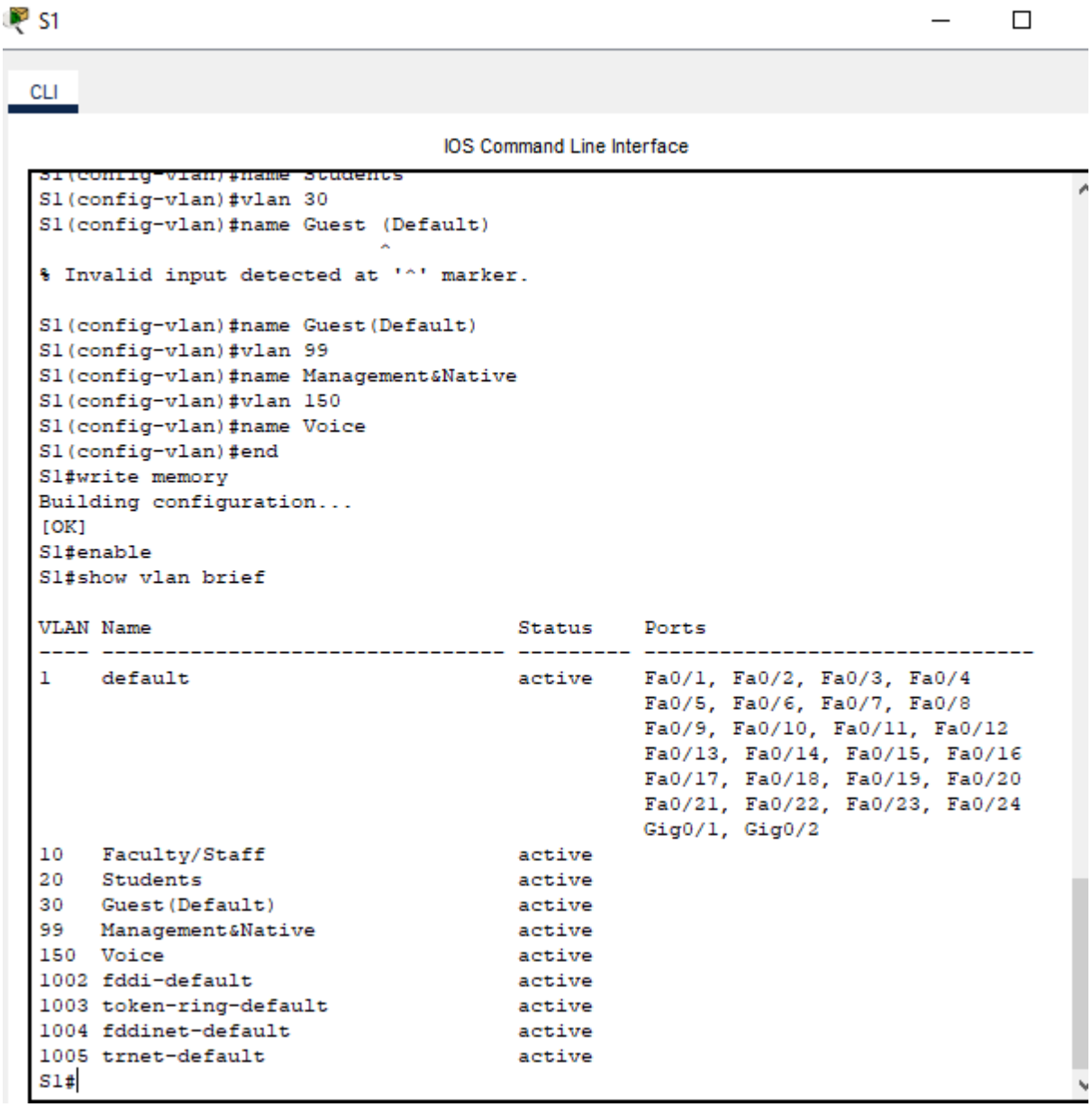
CLI

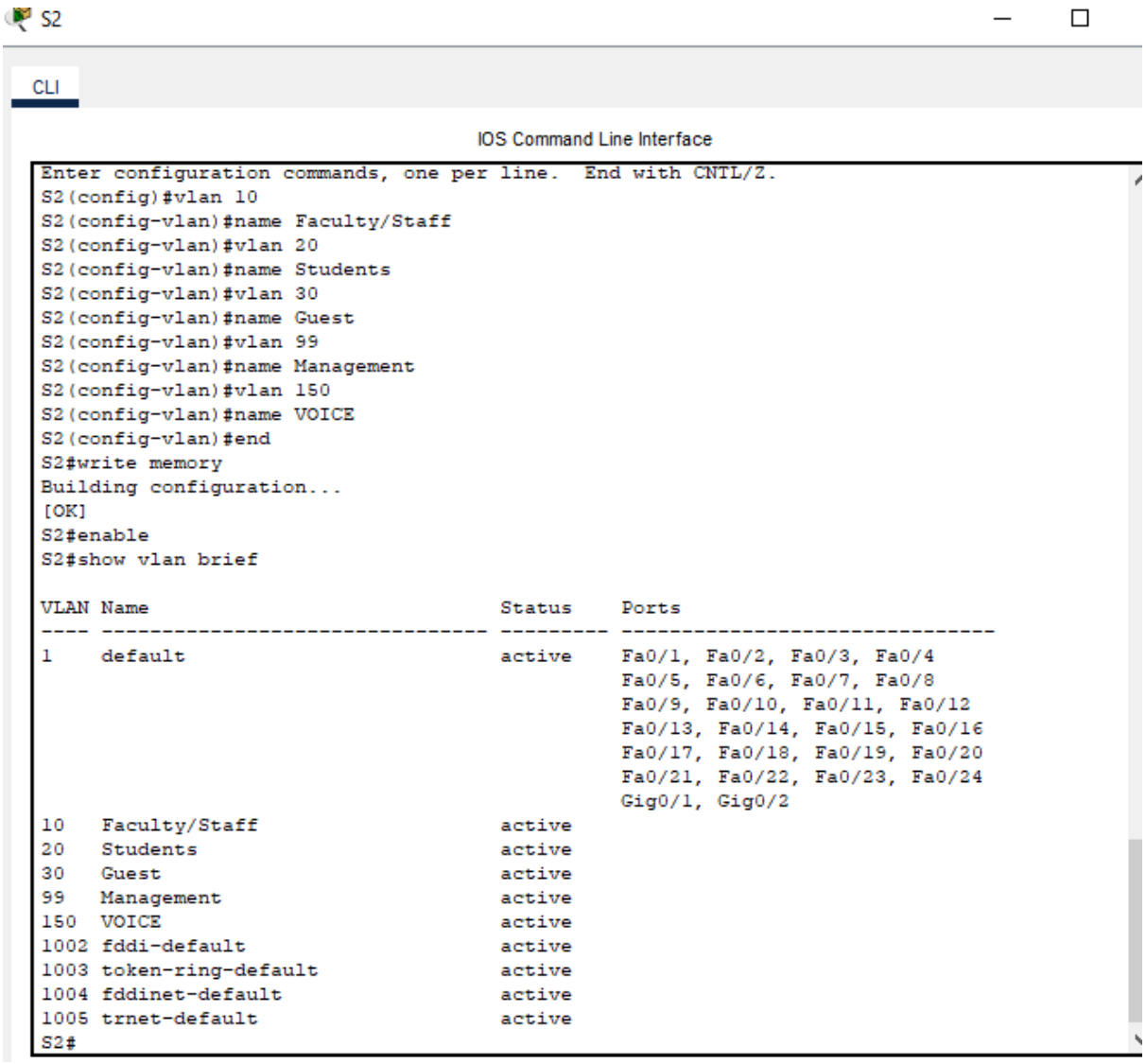
IOS Command Lin

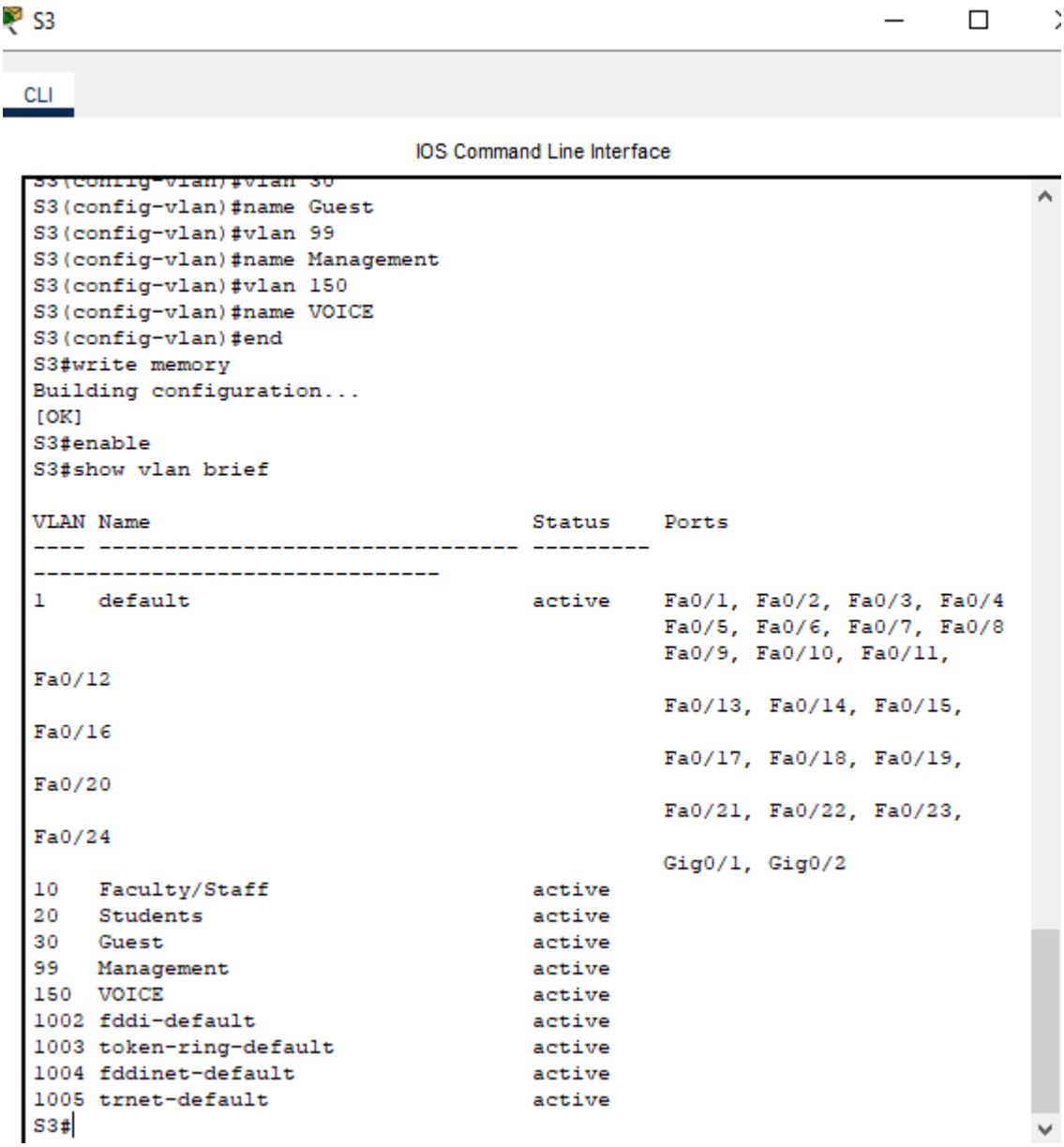
```
%LINEPROTO-5-UPDOWN: Line protocol on
changed state to up

%LINK-5-CHANGED: Interface FastEthern

%LINEPROTO-5-UPDOWN: Line protocol on
changed state to up

%LINK-5-CHANGED: Interface FastEthern

%LINEPROTO-5-UPDOWN: Line protocol on
changed state to up

%LINK-5-CHANGED: Interface GigabitEth

%LINEPROTO-5-UPDOWN: Line protocol on
changed state to up


S2>enable
S2#configure terminal
Enter configuration commands, one per
S2(config)#vlan 10
S2(config-vlan)#name Faculty/Staff
S2(config-vlan)#vlan 20
S2(config-vlan)#name Students
S2(config-vlan)#vlan 30
S2(config-vlan)#name Guest
S2(config-vlan)#vlan 99
S2(config-vlan)#name Management
S2(config-vlan)#vlan 150
S2(config-vlan)#name VOICE
S2(config-vlan)#end
S2#write memory
Building configuration...
[OK]
S2#
```



3. **Buka S1, S2, S3 lalu ketik show vlan brief untuk meverikasi semua VLAN yang kita buat sudah terkonfigurasi**.


S1
CLI
IOS Command Line Interface
S1(config-vlan)#name Students
S1(config-vlan)#vlan 30
S1(config-vlan)#name Guest (Default)
% Invalid input detected at '^' marker.
S1(config-vlan)#name Guest(Default)
S1(config-vlan)#vlan 99
S1(config-vlan)#name Management&Native
S1(config-vlan)#vlan 150
S1(config-vlan)#name Voice
S1(config-vlan)#end
S1#write memory
Building configuration...
[OK]
S1#enable
S1#show vlan brief
VLAN Name Status Ports
1 default active Fa0/1, Fa0/2, Fa0/3, 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
10 Faculty/Staff active
20 Students active
30 Guest(Default) active
99 Management&Native active
150 Voice active
1002 fddi-default active
1003 token-ring-default active
1004 fddinet-default active
1005 trnet-default active
S1#


S2
CLI
IOS Command Line Interface
Enter configuration commands, one per line. End with CNTL/Z.
S2(config)#vlan 10
S2(config-vlan)#name Faculty/Staff
S2(config-vlan)#vlan 20
S2(config-vlan)#name Students
S2(config-vlan)#vlan 30
S2(config-vlan)#name Guest
S2(config-vlan)#vlan 99
S2(config-vlan)#name Management
S2(config-vlan)#vlan 150
S2(config-vlan)#name VOICE
S2(config-vlan)#end
S2#write memory
Building configuration...
[OK]
S2#enable
S2#show vlan brief
VLAN Name Status Ports
1 default active Fa0/1, Fa0/2, Fa0/3, 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
10 Faculty/Staff active
20 Students active
30 Guest active
99 Management active
150 VOICE active
1002 fddi-default active
1003 token-ring-default active
1004 fddinet-default active
1005 trnet-default active
S2#



BAGIAN 3: Menetapkan VLAN ke port

1. **Tetapkan VLAN ke port aktif pada (S2 dan S3)**
    a. Konfigurasi interface sebagai port akses lalu tetapkan VLAN:
        - VLAN 10: FastEthernet 0/11
        - VLAN 20: FastEthernet 0/18
        - VLAN 30: FastEthernet 0/6

```
S2>en
S2#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
S2(config)#interface f0/11
S2(config-if)#switchport mode access
S2(config-if)#switchport access vlan 10
S2(config-if)#interface f0/18
S2(config-if)#switchport mode access
S2(config-if)#switchport access vlan 20
S2(config-if)#interface f0/6
S2(config-if)#switchport mode access
S2(config-if)#switchport access vlan 30
S2(config-if)#exit
S2(config)#end
S2#
%SYS-5-CONFIG_I: Configured from console by console
write memory
Building configuration...
[OK]
```

b. Konfigurasi S3 sebagai port akses dan tetapkan VLAN dengan langkah langkah seperti sebelumnya.

```
S3>en
S3#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
S3(config)#interface f0/11
S3(config-if)#switchport mode access
S3(config-if)#switchport access vlan 10
S3(config-if)#interface f0/18
S3(config-if)#switchport mode access
S3(config-if)#switchport access vlan 20
S3(config-if)#interface f0/6
S3(config-if)#switchport mode access
S3(config-if)#switchport access vlan 30
S3(config-if)#exit
S3(config)#end
S3#write memory
Building configuration...
[OK]
```

2. Konfigurasi VOICE VLAN ke FastEthernet 0/11 pada S3

```
S3#enable
S3#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
S3(config)#interface f0/11
S3(config-if)#mls qos trust cos
S3(config-if)#switchport voice vlan 150
S3(config-if)#exit
S3(config)#end
```

Mengapa perlu melakukan langkah ini? (Langkah 3c)

Langkah tersebut dilakukan karena satu port pada switch terhubung ke dua perangkat, yaitu IP Phone dan PC. Melalui konfigurasi voice VLAN, lalu lintas suara dan data dipisahkan ke VLAN berbeda agar jaringan lebih tertata, aman, serta mudah dikelola. Voice VLAN juga memberikan prioritas pada paket suara melalui QoS, sehingga

kualitas panggilan IP tetap jernih, stabil, dan tidak terpengaruh oleh aktivitas data dari PC.

3. **Verifikasi hilangnya konektibitas**
   Gunakan perintah show vlan brief

```
S2#enable
S2#show vlan brief

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, Fa0/12, Fa0/13, Fa0/14
                                                 Fa0/15, Fa0/16, Fa0/17, Fa0/19
                                                 Fa0/20, Fa0/21, Fa0/22, Fa0/23
                                                 Fa0/24, Gig0/1, Gig0/2
10   Faculty/Staff                     active    Fa0/11
20   Students                          active    Fa0/18
30   Guest                             active    Fa0/6
99   Management                        active
150  VOICE                             active
1002 fddi-default                      active
1003 token-ring-default                active
1004 fddinet-default                   active
1005 trnet-default                     active
S2#
```

```
S3#enable
S3#show vlan brief

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, Fa0/12, Fa0/13, Fa0/14
                                                 Fa0/15, Fa0/16, Fa0/17, Fa0/19
                                                 Fa0/20, Fa0/21, Fa0/22, Fa0/23
                                                 Fa0/24, Gig0/1, Gig0/2
10   Faculty/Staff                     active    Fa0/11
20   Students                          active    Fa0/18
30   Guest                             active    Fa0/6
99   Management                        active
150  VOICE                             active    Fa0/11
1002 fddi-default                      active
1003 token-ring-default                active
1004 fddinet-default                   active
1005 trnet-default                     active
S3#
```

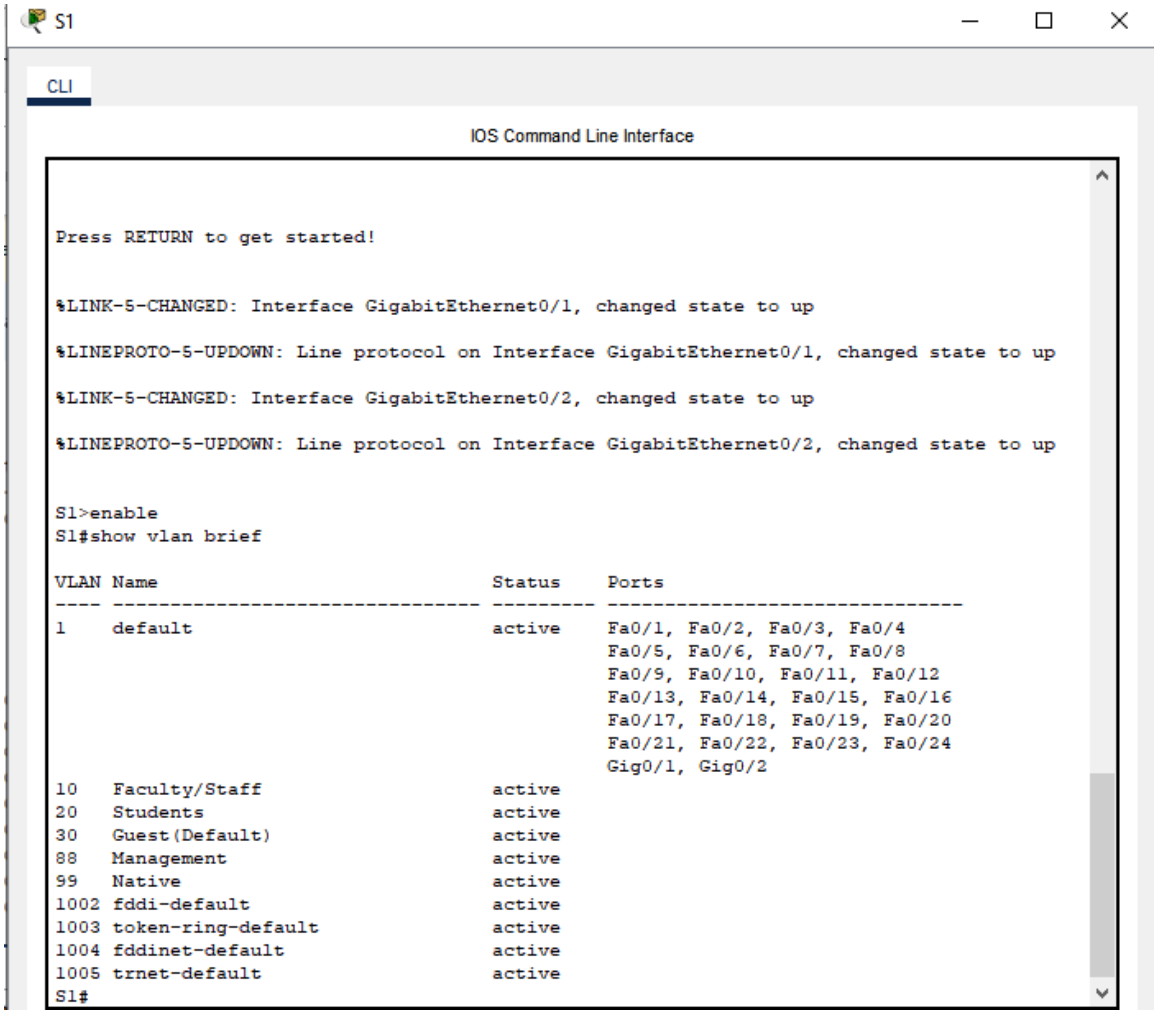
4. **Verifikasi konektivitas antar PC:**
   - **PC 1 dapat melakukan ping ke PC 4**
   - **PC 2 dapat melakukan ping ke PC 5**
   - **PC 3 dapat melakukan ping ke PC 6**

CODELAB 2

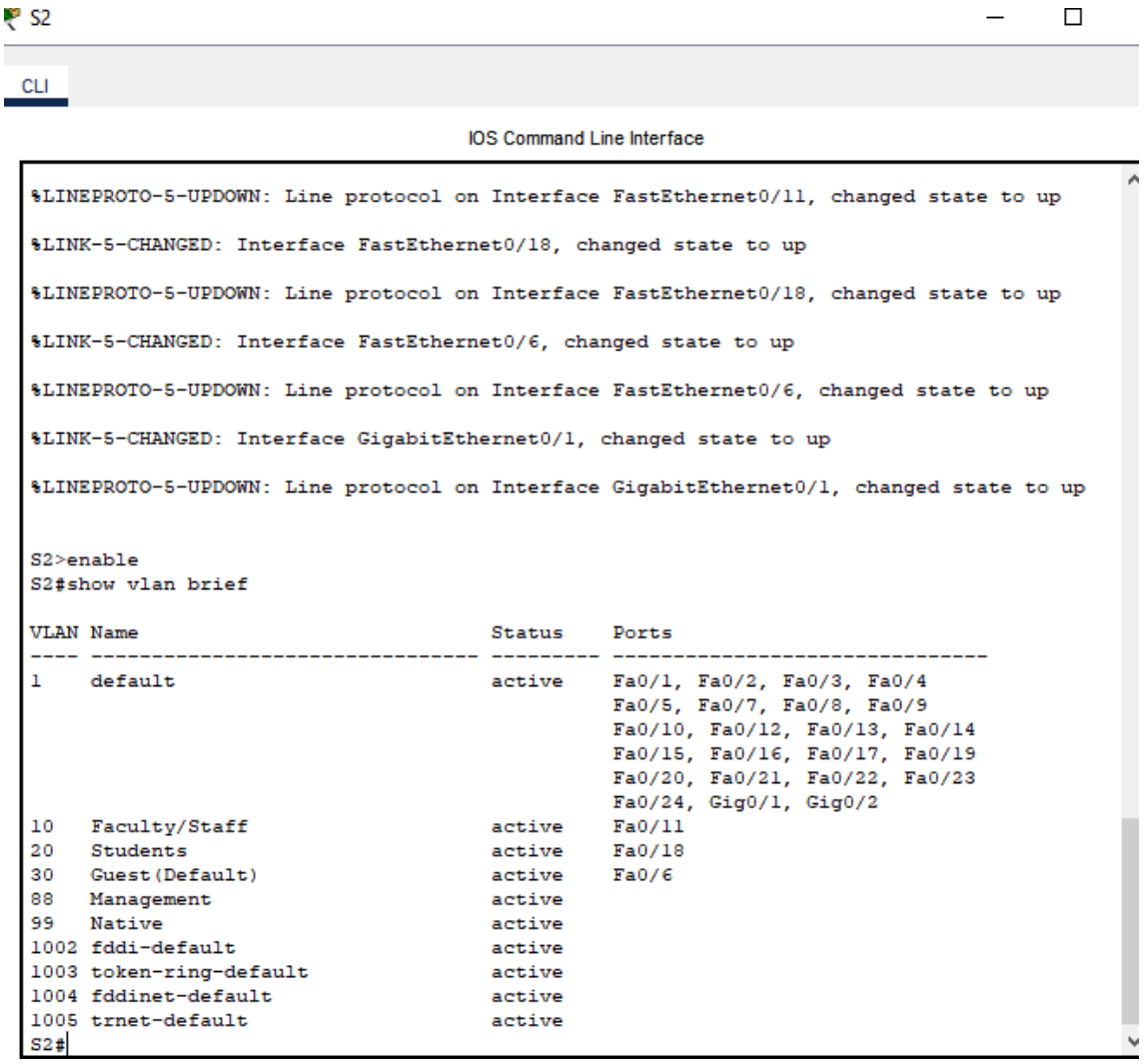
BAGIAN 1: Verifikasi VLANS

1. **Tampilkan VLAN saat ini**

a. Pada switch S1, jalankan perintah untuk menampilkan seluruh VLAN yang telah dikonfigurasi. Seharusnya terdapat total sepuluh VLAN. Perlu diperhatikan bahwa seluruh 26 port akses pada switch masih berada di VLAN 1.



b. Pada switch S2 dan S3, tampilkan serta pastikan bahwa seluruh VLAN sudah dikonfigurasi dan setiap port switch telah ditempatkan pada VLAN yang sesuai dengan Addressing Table.


S2
CLI
IOS Command Line Interface
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/11, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/18, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/18, changed state to up
%LINK-5-CHANGED: Interface FastEthernet0/6, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/6, changed state to up
%LINK-5-CHANGED: Interface GigabitEthernet0/1, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to up
S2>enable
S2#show vlan brief
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, Fa0/12, Fa0/13, Fa0/14
Fa0/15, Fa0/16, Fa0/17, Fa0/19
Fa0/20, Fa0/21, Fa0/22, Fa0/23
Fa0/24, Gig0/1, Gig0/2
10 Faculty/Staff active Fa0/11
20 Students active Fa0/18
30 Guest(Default) active Fa0/6
88 Management active
99 Native active
1002 fddi-default active
1003 token-ring-default active
1004 fddinet-default active
1005 trnet-default active
S2#

S3

CLI

IOS Command Line Interface

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/11, changed state to up

%LINK-5-CHANGED: Interface FastEthernet0/18, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/18, changed state to up

%LINK-5-CHANGED: Interface FastEthernet0/6, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/6, changed state to up

%LINK-5-CHANGED: Interface GigabitEthernet0/2, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/2, changed state to up


S3>enable
S3#show vlan brief

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, Fa0/12, Fa0/13, Fa0/14
                                                 Fa0/15, Fa0/16, Fa0/17, Fa0/19
                                                 Fa0/20, Fa0/21, Fa0/22, Fa0/23
                                                 Fa0/24, Gig0/1, Gig0/2
10   Faculty/Staff                     active    Fa0/11
20   Students                          active    Fa0/18
30   Guest(Default)                    active    Fa0/6
88   Management                        active
99   Native                            active
1002 fddi-default                      active
1003 token-ring-default                active
1004 fddinet-default                   active
1005 trnet-default                     active
S3#
```

BAGIAN 2: Mengkonfigurasi Trunk

1. Konfigurasikan trunking pada S1 dan gunakan VLAN 99 sebagai native VLAN

a. Konfigurasikan interface G0/1 dan G0/2 pada S1 untuk trunking

```
S1#enable
S1#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
S1(config)#interface range g0/1-2
S1(config-if-range)#switchport mode trunk


S1(config-if-range)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to down

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/2, changed state to down
```

b. Konfigurasikan VLAN 99 sebagai native VLAN untuk interface G0/1 dan G0/2 pada S1

```
%LINEPROTO-5-UPDOWN: Line protocol on Interface GigabitEthernet0/2, changed state to up
switchport trunk native vlan 99
S1(config-if-range)#
S1(config-if-range)#
S1(config-if-range)#
%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on GigabitEthernet0/2 (99),
with S3 GigabitEthernet0/2 (1).

%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on GigabitEthernet0/1 (99),
with S2 GigabitEthernet0/1 (1).

%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on GigabitEthernet0/2 (99),
with S3 GigabitEthernet0/2 (1).

%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on GigabitEthernet0/1 (99),
with S2 GigabitEthernet0/1 (1).

%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on GigabitEthernet0/2 (99),
with S3 GigabitEthernet0/2 (1).

%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on GigabitEthernet0/1 (99),
with S2 GigabitEthernet0/1 (1).
```

Port trunk memerlukan sedikit waktu untuk aktif karena proses Spanning Tree Protocol. Gunakan Fast Forward Time agar proses berlangsung lebih cepat. Setelah port aktif, sesekali akan muncul pesan syslog yang terlihat di layar.

```
%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on GigabitEthernet0/2 (99),
with S3 GigabitEthernet0/2 (1).

%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on GigabitEthernet0/1 (99),
with S2 GigabitEthernet0/1 (1).
```

PERTANYAAN :

Meskipun terdapat native VLAN mismatch,ping antar PC pada VLAN yang sama sekarang berhasil.Jelaskan!

Walaupun terjadi native VLAN mismatch, koneksi ping antar PC dalam VLAN yang sama tetap berhasil. Hal ini disebabkan karena komunikasi antar perangkat dalam VLAN tidak bergantung pada native VLAN. Setiap PC berada di VLAN 10, 20, dan 30, dan lalu lintas antar VLAN tersebut dikirim melalui frame bertag (802.1Q tagging) yang tetap diteruskan dengan benar melalui trunk link. Native VLAN hanya digunakan untuk lalu lintas tanpa tag (untagged traffic). Selama VLAN yang digunakan oleh PC diizinkan pada trunk dan proses tagging berfungsi dengan baik, maka frame VLAN dapat dikirim tanpa terpengaruh oleh ketidaksesuaian native VLAN. Oleh sebab itu, ping antar PC dalam VLAN yang sama tetap berjalan normal meskipun muncul peringatan native VLAN mismatch.

2. **Verifikasi trunking di S2 dan S3**
   Ketik perintah show interface trunk pada S2 dan S3 untuk memastikan DTP berhasil menegosiasikan trunking dengan S1 maka output akan menampilkan informasi mengenai interface trunk pada S2 dan S3.

```
S2>show interface trunk
Port        Mode         Encapsulation  Status        Native vlan
Gig0/1      auto         n-802.1q       trunking      1

Port        Vlans allowed on trunk
Gig0/1      1-1005

Port        Vlans allowed and active in management domain
Gig0/1      1,10,20,30,88,99

Port        Vlans in spanning tree forwarding state and not pruned
Gig0/1      10,20,30,88

S2>


S3>show interface trunk
Port        Mode         Encapsulation  Status        Native vlan
Gig0/2      auto         n-802.1q       trunking      1

Port        Vlans allowed on trunk
Gig0/2      1-1005

Port        Vlans allowed and active in management domain
Gig0/2      1,10,20,30,88,99

Port        Vlans in spanning tree forwarding state and not pruned
Gig0/2      10,20,30,88

S3>
```

PERTANYAAN:

VLAN aktif mana saja yang diizinkan untuk melewati trunk?

Secara default, semua VLAN dari VLAN 1 hingga VLAN 1005 diizinkan melewati trunk. Hal ini terjadi karena belum ada pembatasan yang ditetapkan melalui perintah switchport trunk allowed vlan**,** sehingga trunk link otomatis mengizinkan seluruh VLAN aktif untuk lewat antar switch. Pada topologi yang digunakan, VLAN yang berperan adalah VLAN 10, VLAN 20, VLAN 30, serta VLAN 99 sebagai native VLAN. Keempat VLAN tersebut dapat melintas melalui trunk tanpa kendala, sementara VLAN 1 tetap muncul karena merupakan VLAN bawaan yang selalu aktif di switch Cisco.

3. **Perbaiki native VLAN mismatch pada S2 dan S3**
    a. Konfigurasikan VLAN 99 sebagai native VLAN pada interface yang sesuai di S2 dan S3.

```
S2>enable
S2#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
S2(config)#interface g0/1
S2(config-if)#switchport mode trunk
S2(config-if)#switchport trun
%CDP-4-NATIVE_VLAN_MISMATCH: Native VLAN mismatch discovered on GigabitEthernet0/1 (1),
with S1 GigabitEthernet0/1 (99).

% Incomplete command.
S2(config-if)#switchport trunk native vlan 99
S2(config-if)#%SPANTREE-2-UNBLOCK_CONSIST_PORT: Unblocking GigabitEthernet0/1 on
VLAN0099. Port consistency restored.

%SPANTREE-2-UNBLOCK_CONSIST_PORT: Unblocking GigabitEthernet0/1 on VLAN0001. Port
consistency restored.


S2(config-if)#switchport trunk native vlan 99
S2(config-if)#no shutdown
S2(config-if)#
S3#enable
S3#conf t
Enter configuration commands, one per line.  End with CNTL/Z.
S3(config)#interface g0/2
S3(config-if)#switchport mode trunk
S3(config-if)#switchport trunk native vlan 99
S3(config-if)#%SPANTREE-2-UNBLOCK_CONSIST_PORT: Unblocking GigabitEthernet0/2 on
VLAN0099. Port consistency restored.

%SPANTREE-2-UNBLOCK_CONSIST_PORT: Unblocking GigabitEthernet0/2 on VLAN0001. Port
consistency restored.


S3(config-if)#no shutdown
```

b. Untuk memastikan bahwa konfigurasi native VLAN sudah sesuai, gunakan perintah show interface trunk**.**

```
S2>show interface trunk
Port        Mode         Encapsulation  Status        Native vlan
Gig0/1      on           802.1q         trunking      99

Port        Vlans allowed on trunk
Gig0/1      1-1005

Port        Vlans allowed and active in management domain
Gig0/1      1,10,20,30,88,99

Port        Vlans in spanning tree forwarding state and not pruned
Gig0/1      none

S2>
```

```
S3#show interface trunk
Port        Mode         Encapsulation  Status        Native vlan
Gig0/2      on           802.1q         trunking      99

Port        Vlans allowed on trunk
Gig0/2      1-1005

Port        Vlans allowed and active in management domain
Gig0/2      1,10,20,30,88,99

Port        Vlans in spanning tree forwarding state and not pruned
Gig0/2      1,10,20,30,88,99

S3#
```

4. Pastikan hasil konfigurasi pada switch S2 dan S3.

a. Ketik perintah show interface switchport untuk memastikan bahwa native VLAN sekarang adalah 99.

```
S2#show interface g0/1 switchport
Name: Gig0/1
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: 99 (Native)
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
 --More-- |
S3>show interface g0/2 switchport
Name: Gig0/2
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: 99 (Native)
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
 --More-- |
```

b. Untuk menampilkan informasi VLAN yang dikonfigurasi ketik perintah show vlan.

```
S2#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, Fa0/12, Fa0/13, Fa0/14
                                                 Fa0/15, Fa0/16, Fa0/17, Fa0/19
                                                 Fa0/20, Fa0/21, Fa0/22, Fa0/23
                                                 Fa0/24, Gig0/2
10   Faculty/Staff                     active    Fa0/11
20   Students                          active    Fa0/18
30   Guest(Default)                    active    Fa0/6
88   Management                        active
99   Native                            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
 --More-- |
S3>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, Fa0/12, Fa0/13, Fa0/14
                                                 Fa0/15, Fa0/16, Fa0/17, Fa0/19
                                                 Fa0/20, Fa0/21, Fa0/22, Fa0/23
                                                 Fa0/24, Gig0/1
10   Faculty/Staff                     active    Fa0/11
20   Students                          active    Fa0/18
30   Guest(Default)                    active    Fa0/6
88   Management                        active
99   Native                            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
 --More-- |
```

PERTANYAAN :

Mengapa port G0/1 pada S2 tidak lagi ditugaskan ke VLAN 1?

karena port telah diubah dari access port menjadi trunk port. Dalam mode trunk, port tidak lagi menjadi anggota VLAN tertentu seperti pada mode access, sehingga tidak muncul di VLAN 1. Sebagai trunk port, G0/1 berperan untuk mengirimkan lalu lintas dari berbagai VLAN sekaligus, termasuk VLAN 10, 20, 30, serta VLAN 99 sebagai native VLAN. Dengan demikian, port trunk tidak ditampilkan pada hasil perintah **show vlan**, karena tidak terikat pada satu VLAN khusus seperti access port.