VLANs and Trunks – Activity Overview

In this graded Packet Tracer 6.1 activity you will configure two Cisco Catalyst 2960 switches with VLANs and Trunks. The tasks include named VLANs, a trunk between two switches, and a management IP address on each switch using switched virtual interfaces or SVIs. You will also need to configure hostnames on the switches and each PC, with an IP address and subnet mask.

Instructions

1. Set the PC's IP addresses based on the host address label and VLAN color code in the topology diagram
2. Assign the switch hostnames based on their labels.
3. Configure the switch VLAN numbers and VLAN names according to the diagram.
4. Configure Interface VLAN88 (SVI) addresses on both switches according to the diagram.
5. Change the switchports as access ports and assign them to VLANs according to the diagram.
6. Configure G0/1 as a Trunk. Allow the listed VLANs only across the trunk and configure the Native VLAN as shown
7. Shutdown the G0/2 interface.

Download

For this graded activity you will need Packet Tracer version 6.1 or higher.

VLANS-Switchports-Trunks-SVIs.zip

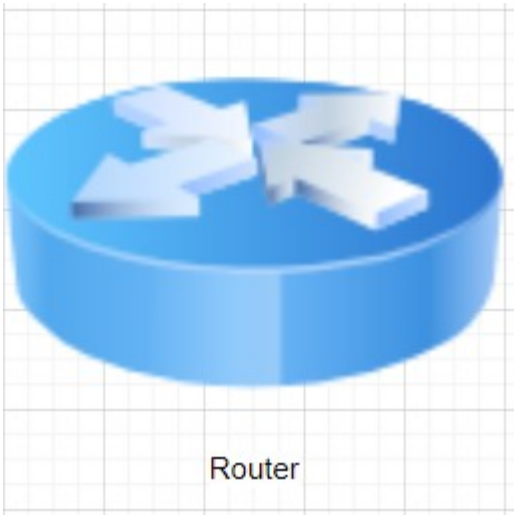
IOS CLI Commands for Switch S1

Switch> enable
Switch# configure terminal
Switch(config)# hostname S1

```
S1(config)# vlan 10
S1(config-vlan)# name students
S1(config-vlan)# vlan 20
S1(config-vlan)# name faculty
S1(config-vlan)# vlan 30
S1(config-vlan)# name administration
S1(config-vlan)# vlan 88
S1(config-vlan)# name management
S1(config-vlan)# vlan 99
S1(config-vlan)# name native
S1(config-vlan)# exit
S1(config)# int range f0/1 – 8
S1(config-if)# switchport mode access
S1(config-if)# switchport access vlan 10
S1(config-if)# int range f0/9 – 16
S1(config-if)# switchport mode access
S1(config-if)# switchport access vlan 20
S1(config-if)# int range f0/17 – 23
S1(config-if)# switchport mode access
S1(config-if)# switchport access vlan 30
S1(config-if)# int f0/24
S1(config-if)# switchport mode access
S1(config-if)# switchport access vlan 88
S1(config-if)# int vlan 88
S1(config-if)# ip address 192.168.88.254 255.255.255.0
S1(config-if)# int g0/1
S1(config-if)# switchport mode trunk
S1(config-if)# switchport trunk allowed vlan 10,20,30,88,99
S1(config-if)# switchport trunk native vlan 99
S1(config-if)# int g0/2
S1(config-if)# shut
```

```
hostname <name>
banner motd <#No unauthorized access!#>
enable secret <password>
line console 0
password <password>
login
line vty 0 15
password <password>
login
```

int vlan 1
ip address <ip addr> <mask>
no shutdown
ip default-gateway <ip addr>
copy running-config startup-config



En

Conf t

Hostname

Enable secret

no ip domain-lookup

int int_id

ip address ip+ subnet

exec-timeout 5 30

ip route computer ip and subnet and router ip add

router>enable
router#configure terminal
router(config)#hostname R1

banner motd <#No unauthorized access!#>
enable secret <password>
line console 0
password <password>

```
login
line vty 0 4
password <password>
login
int fa 0/0
ip address <ip addr> <mask>
description <description>
no shut
int s 0/0/0
ip address <ip addr> <mask>
clock rate <rate num> (only if the interface is the DCE)
description <description>
no shut
int s 0/0/1
ip address <ip addr> <mask>
clock rate <rate num> (only if the interface is the DCE)
description <description>
R1(config)#ipv6 unicast-routing
R1(config)#interface g0/0
R1(config-if)#ipv6 address FE80::1 link-local
R1(config-if)#ipv6 address 2001:DB8:DA:1::1/64
R1(config-if)#ipv6 rip RIP1 enable
R1(config-if)#no shut
R1(config-if)#interface s0/0/0
R1(config-if)#ipv6 address FE80::1 link-local
R1(config-if)#ipv6 address 2001:DB8:DA:2::1/64
R1(config-if)#ipv6 rip RIP1 enable
R1(config-if)#ipv6 rip RIP1 default-information originate
R1(config-if)#clock rate 128000
R1(config-if)#no shut
R1(config-if)#interface s0/0/1
R1(config-if)#ipv6 address FE80::1 link-local
R1(config-if)#ipv6 address 2001:DB8:CD1:C::2/64
R1(config-if)#no shut
R1(config-if)#exit
R1(config)#ipv6 route ::/0 s0/0/1
R1(config)#exit
R1#copy running-config startup-config
R1#show running-config
R1#show ipv6 route
R1#show ipv6 int brief
```

ip access-list <standard | extended> <name>
router(config-std-nacl)#<permit | deny> <source host or network> <wildcard> <destination host or network> <wildcard>
router(config-ext-nacl)#<permit | deny> <protocol> <source host or network> <wildcard> <destination host or network> <wildcard> <operator> <port>

access-list 100 deny ip 192.168.1.100 0.0.0.0 192.168.4.0 0.0.0.255