



Assignment Submission

Heading: Finding password for switch

It can also be found from the configuration log.

I was supposed to find the user's name and password to access the switch CLI.

As it was definitive that the user's name and the password get stored inside the running config file to get managed.

So, I downloaded the running config file from the Config tab.

Then I exported Running Config file and after analysing I found out the user's name and password for the accessing of our switch

Solution: [Username: **net**, Password: **game**]



Heading: Mac learning.

To do it,

First assign ip to all the end devices, then I checked if the host is assigned with ip or not.

It was already assigned. Then I just dropped packet from one end to another end.

Then I verified that switches learned the MAC or not by running command

→show mac-address to get table from the switch.



Heading: Vlan configuration troubleshoot.

Approach:

I investigated a network issue involving failed packet transfers between PCs 2 (Bob) and 3 (Vicer). Upon examination, I discovered that the configuration was incorrect, specifically regarding VLAN settings. Ethernet 3 was not connected to VLAN 2 on the second SENIOR switch. To rectify this, I used switch port commands to ensure the proper VLAN assignment.

Despite fixing the VLAN configuration, packet transfers were still unsuccessful. Suspecting a trunking issue, I decided to switch one VLAN to trunking mode as it seemed to be the likely cause of the continued packet failures, even after correcting the VLAN settings.

The General commands I have used here are:

```
interface <interface-id>  
switchport mode access  
switchport access vlan <vlan-id>
```

And for the trunking issues:

```
interface <interface-id>  
switchport mode trunk
```



Heading: Configuring host name on the switch for SSH access

To do it,

I have entered in the global configuration mode then used these command

```
(.) enable  
(.)configure t  
(.)ip domain-name suvo.com  
(.)crypto key generate rsa 1024  
(.)ip ssh version 2  
(.)username suvo privilege 15 secret suvo.
```



Heading: Challenge 05

Approach:

I have hovered over all the points just to see the configuration and from there I have noticed:

- 1) The interface of Jack's PC was down So I just made it up by "no shutdown" by going into the specific interface.
- 2) For the interface 0/3 (Bob's PC) I changed the half duplex to the full duplex By "duplex full" and speed of 10 mbps to 100 by using "speed 100".



Heading: Challenge 06

Approach:

After conducting a thorough inspection of all configurations and identifying multiple discrepancies, I decided to start by reorganizing the IP addresses to untangle the mess. I matched the IP addresses of the end PCs, creating three distinct networks: 10.0.1.1, 10.0.2.1, and 10.0.3.1, among others. Next, I adjusted the VLAN IP addresses accordingly. After these changes, I initiated packet transmission tests, and I'm pleased to report that there were no errors, indicating successful transmission.

Solution:

	Successful	Bob	Carlos	ICMP		0.000	N	0	(edit)
	Successful	hope	Jack	ICMP		0.000	N	1	(edit)
	Successful	vicer	harry	ICMP		0.000	N	2	(edit)



Heading: Challenge 07

Approach:

First, I noticed that the JACK PC was switched off. I powered it on to ensure it was active in the network.

Next, I checked the configuration of the junior switch. Upon inspection, I found that the duplex setting was set to half and the speed to 10. I adjusted these settings to full duplex and 100 Mbps, respectively.

I also observed that the IP configuration on one of the laptops was missing. To rectify this, I assigned it the IP address 10.0.0.20 to match the network's configuration.

Similarly, I checked the configuration of the CARLOS PC and noticed the same duplex issue. To resolve this, I verified its status using a specific command and ensured that it matched the desired settings.

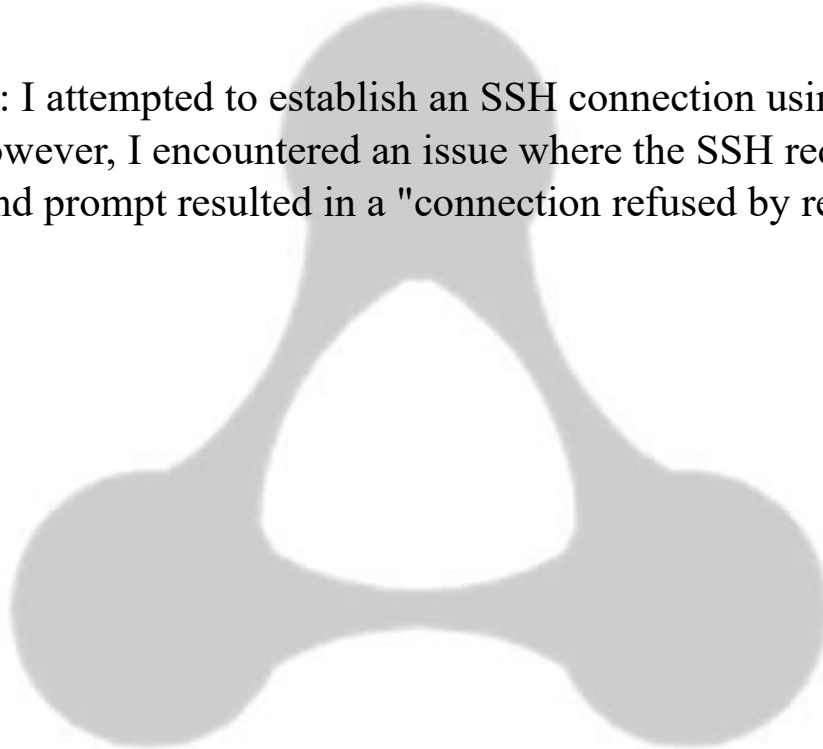
Finally, I tested the connectivity and functionality of all devices to confirm that the changes made had resolved the issues and that the network was operating smoothly.



Heading: Challenge 08

Approach:

Approach: I attempted to establish an SSH connection using the standard process. However, I encountered an issue where the SSH request sent from the command prompt resulted in a "connection refused by remote host" error message.





Heading: Challenge 08

Approach:

In addressing the SSH issue, I revisited the timeout settings within the previous SSH configurations. Timeouts can be configured for different types of sessions.

Solution:

To address the SSH timeout, I utilized the command "IP ssh time-out 60". Since both switches had an idle configuration, I reconfigured SSH with this timeout setting to ensure smooth



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Solution:

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Heading: Challenge 08

Approach:

Senior Switch Ethernet 1 Configuration:

Identified that Ethernet 1 on the senior switch was administratively down.
Used the "no shutdown" command to bring Ethernet 1 up.

Carlos PC IP Configuration:

Noticed that the Carlos PC did not have an IP address assigned.
Configured an IP address for the Carlos PC.

VLAN Configuration:

Observed two VLANs in the network, VLAN 1 and VLAN 20.
Assigned IP addresses to VLAN 1 on both the senior and admin switches.

Junior Switch VLAN Configuration:

Reconfigured the VLAN on the junior switch based on Ethernet connections.
Assigned Vicer's laptop to VLAN 1 and Carlos PC to VLAN 20.

Solution:

Data Transfer Setup:



Established that data transfer between JACK and BOB occurs through VLAN 1.

Confirmed that data transfer between Vicer and CARLOS takes place through VLAN 20.

By following these steps, I ensured that the network interfaces were up and correctly configured, IP addresses were assigned where needed, and VLANs were properly set up for data transfer between the devices according to the specified VLAN configurations.

