7376231EC188

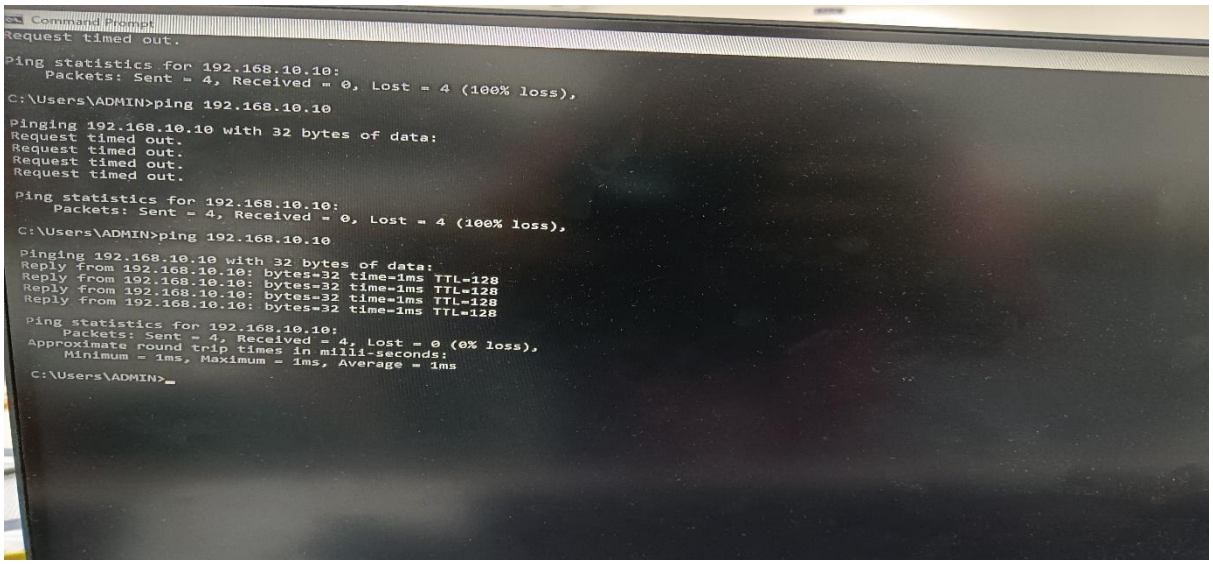
KAVYA C

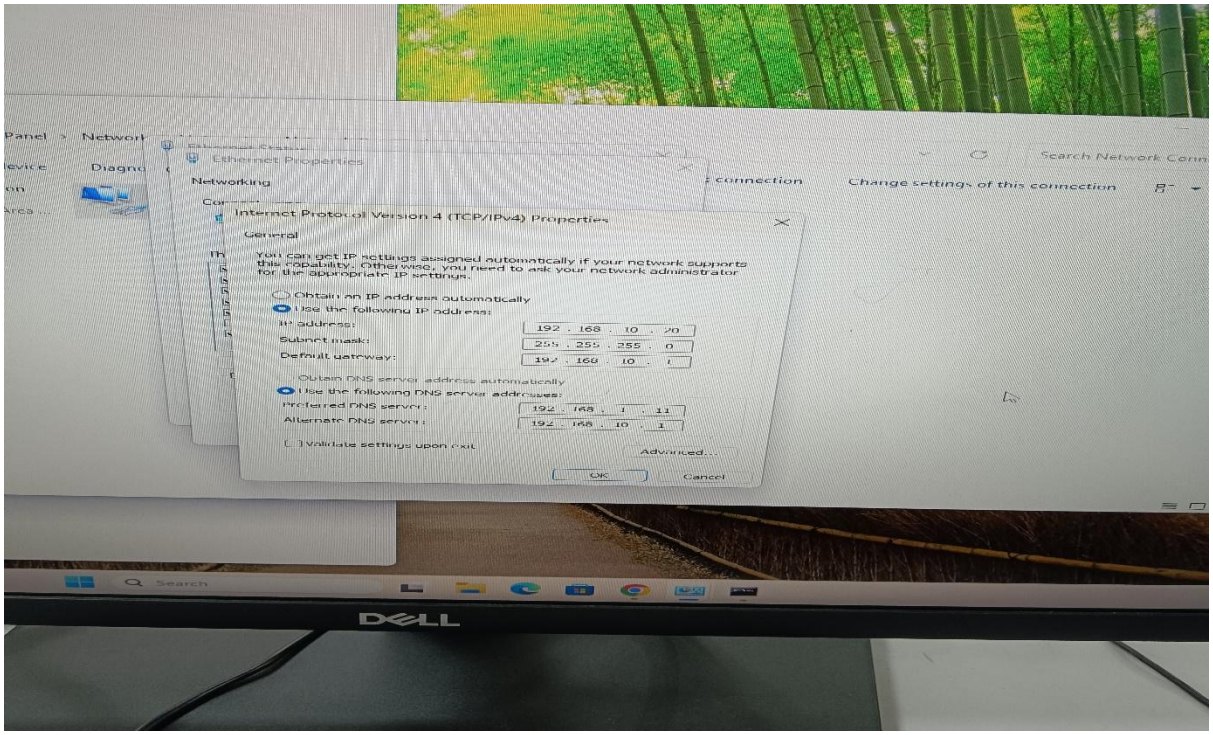
NETWORKING 1

LEVEL 1

Question 1:

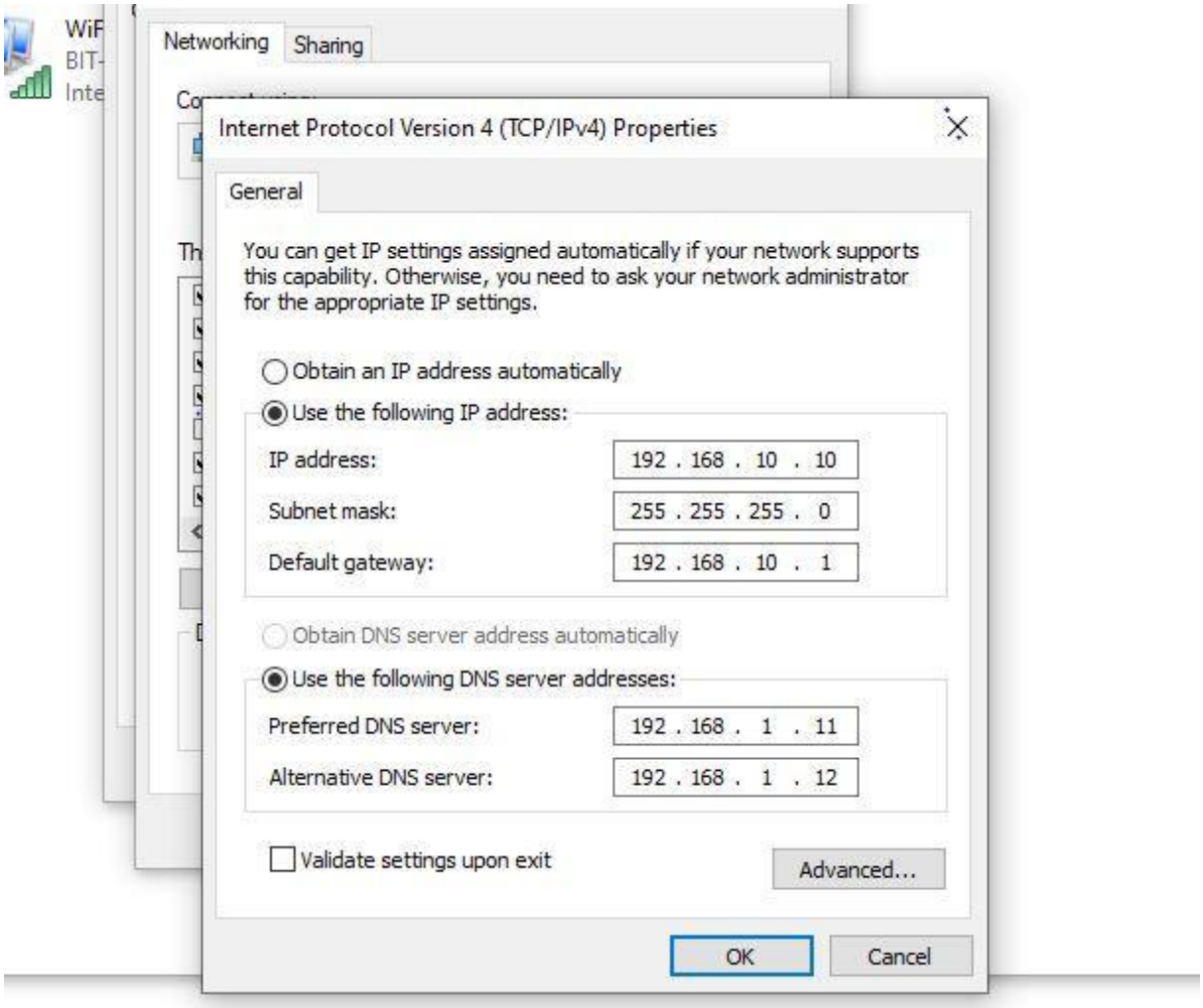
You have been tasked with configuring the IP addresses for a small network consisting of two computers, and a switch. The computers are connected to the switch. The network should use the IP address range 192.168.0.0/24. The first computer should have the IP address 192.168.0.10, the second computer should have the IP address 192.168.0.20, the switch should have the IP address 192.168.0.1. After configuring the network, you notice that the computers cannot ping each other. How would you troubleshoot this problem?



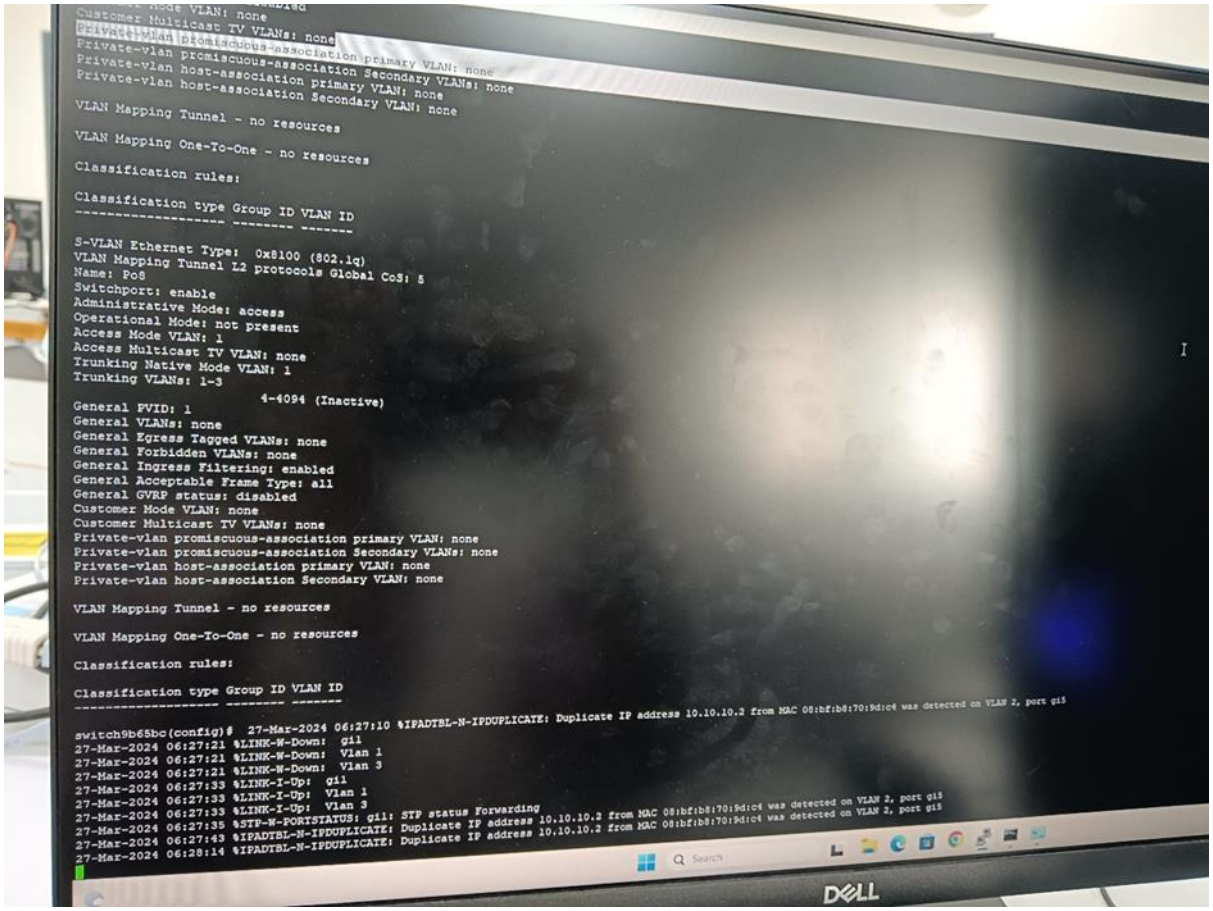


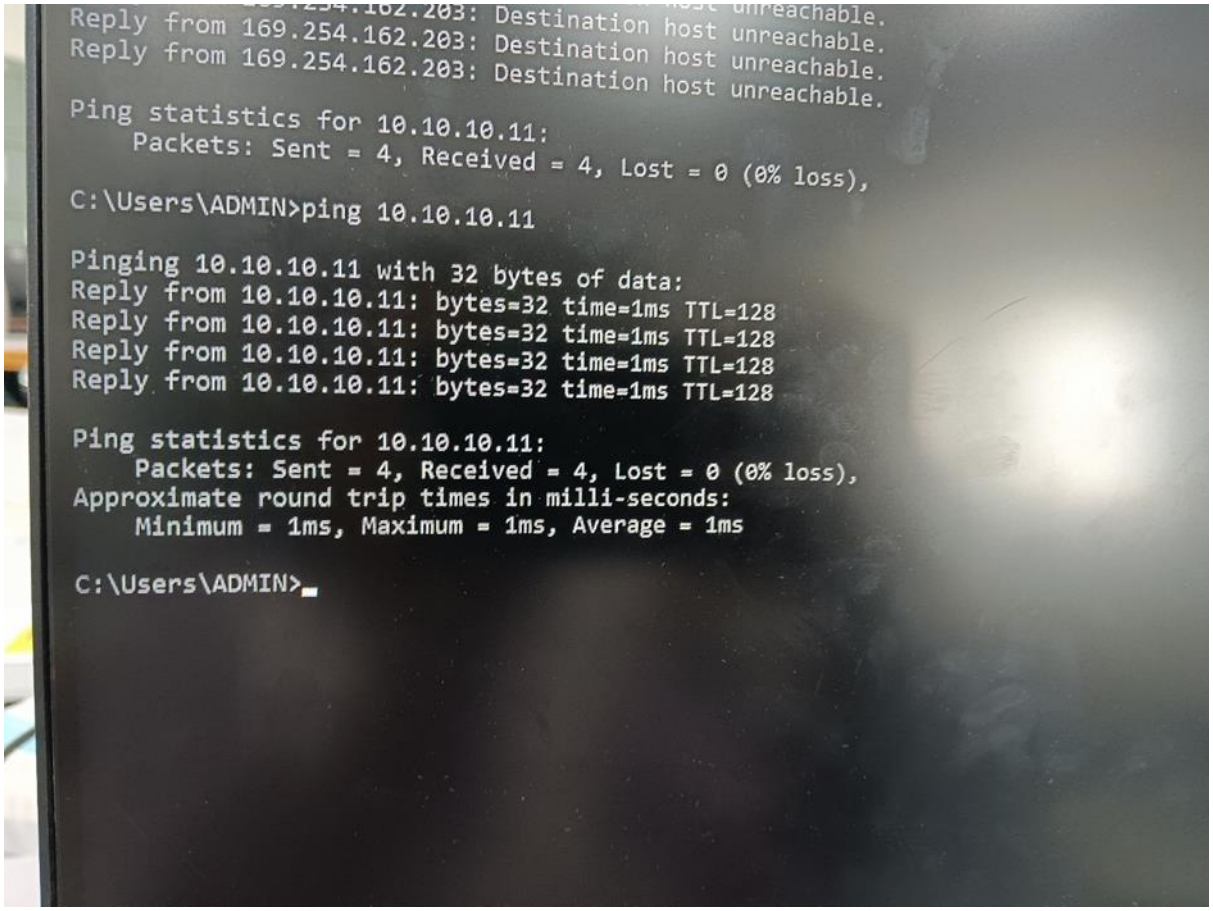

```
Detected speed: 9600


User Name:cisco
Password:***************


switch9b5a85#show vlan
Created by: D-Default, S-Static, G-GVRP, R-Radius Assigned VLAN, V-Voice VLAN

Vlan       Name            Tagged Ports      UnTagged Ports      Created by
---- ----------------- ------------------ ------------------ ----------------
 1          1                               gi1-28,Po1-8           D

switch9b5a85#interface val
% Unrecognized command
switch9b5a85#interface vlanl
% Unrecognized command
switch9b5a85#interface vlanl
% Unrecognized command
switch9b5a85#interface vlan 1
% Unrecognized command
switch9b5a85#interface vlanl
% Unrecognized command
switch9b5a85#configure
switch9b5a85(config)#ip address 192.168.10.1 255.255.255.0
% Unrecognized command
switch9b5a85(config)#ip
% Incomplete command
switch9b5a85(config)#interface vlanl
switch9b5a85(config-if)#ip address 192.168.10.1 255.255.255.0
switch9b5a85(config-if)#default=gate
% Unrecognized command
switch9b5a85(config-if)#default
% Unrecognized command
switch9b5a85(config-if)#df
% Unrecognized command
switch9b5a85(config-if)#f
% Incomplete command
switch9b5a85(config-if)#default gta
% Unrecognized command
switch9b5a85(config-if)#default gateway
% Unrecognized command
```

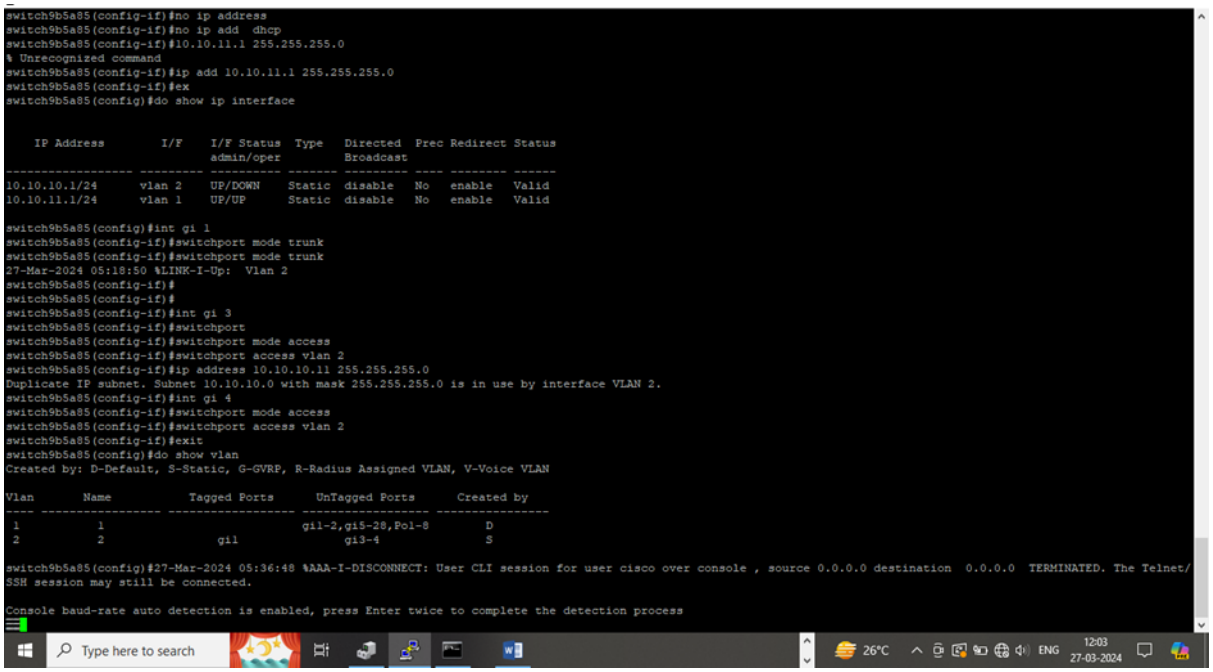
```
Request timed out.

Ping statistics for 192.168.10.20:
    Packets: Sent = 4, Received = 1, Lost = 3 (75% loss),

C:\Users\HP>ping 192.168.10.20

Pinging 192.168.10.20 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.10.20:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

C:\Users\HP>ping 192.168.10.20

Pinging 192.168.10.20 with 32 bytes of data:
Reply from 192.168.10.20: bytes=32 time<1ms TTL=128
Reply from 192.168.10.20: bytes=32 time=1ms TTL=128
Reply from 192.168.10.20: bytes=32 time=1ms TTL=128
Reply from 192.168.10.20: bytes=32 time=1ms TTL=128

Ping statistics for 192.168.10.20:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\Users\HP>
```

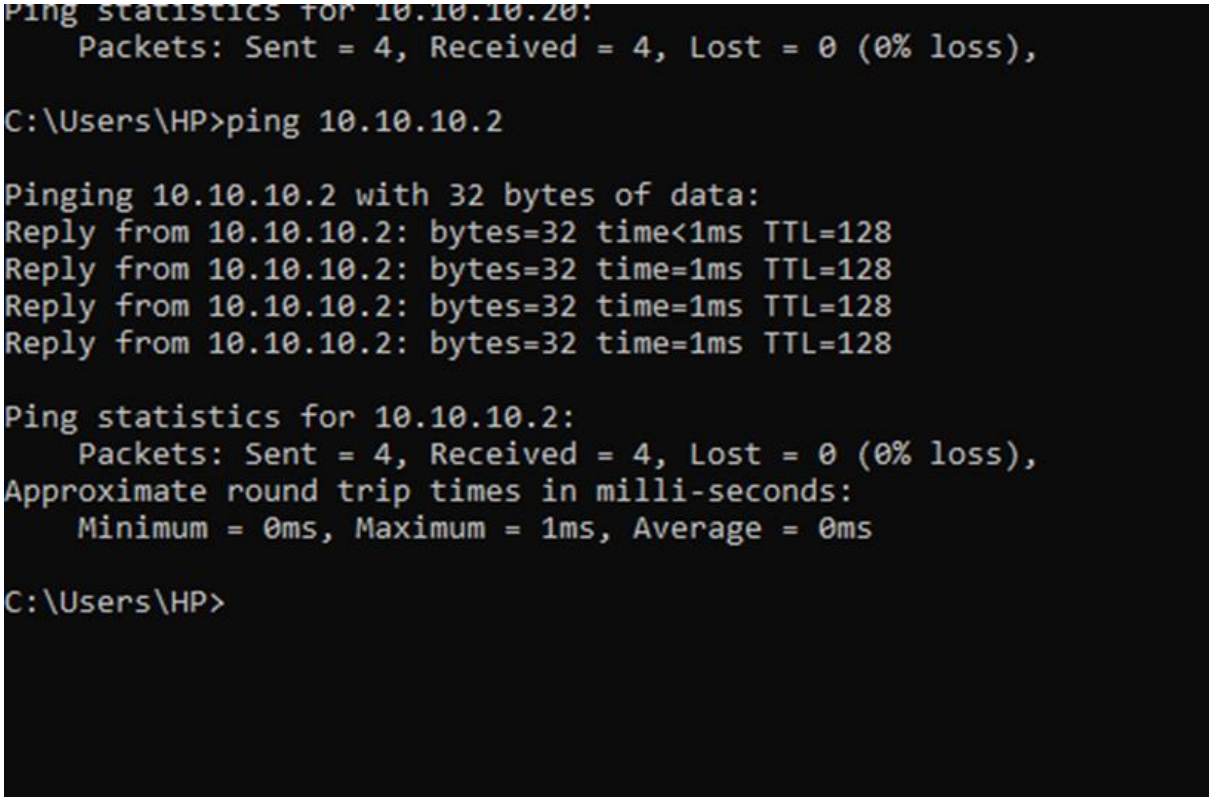


Question 3: You have been tasked with configuring the IP addresses for a campus network consisting of multiple buildings and floors. The network should use the IP address range 10.0.0.0/16. Each building should have a unique third octet, and each floor within a building should have a unique fourth octet. For example, the first building might use the third octet 10.1, and the first floor within that building might use the fourth octet 1. The core switch should be located in Building 1 and should have the IP address 10.1.0.1. After configuring the network, you notice that devices in different buildings cannot communicate with each other. How would you troubleshoot this problem?




Reply from 169.254.162.203: Destination host unreachable.
Reply from 169.254.162.203: Destination host unreachable.
Reply from 169.254.162.203: Destination host unreachable.
Reply from 169.254.162.203: Destination host unreachable.
Ping statistics for 10.10.10.11:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
C:\Users\ADMIN>ping 10.10.10.11
Pinging 10.10.10.11 with 32 bytes of data:
Reply from 10.10.10.11: bytes=32 time=1ms TTL=128
Reply from 10.10.10.11: bytes=32 time=1ms TTL=128
Reply from 10.10.10.11: bytes=32 time=1ms TTL=128
Reply from 10.10.10.11: bytes=32 time=1ms TTL=128
Ping statistics for 10.10.10.11:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 1ms, Maximum = 1ms, Average = 1ms
C:\Users\ADMIN>

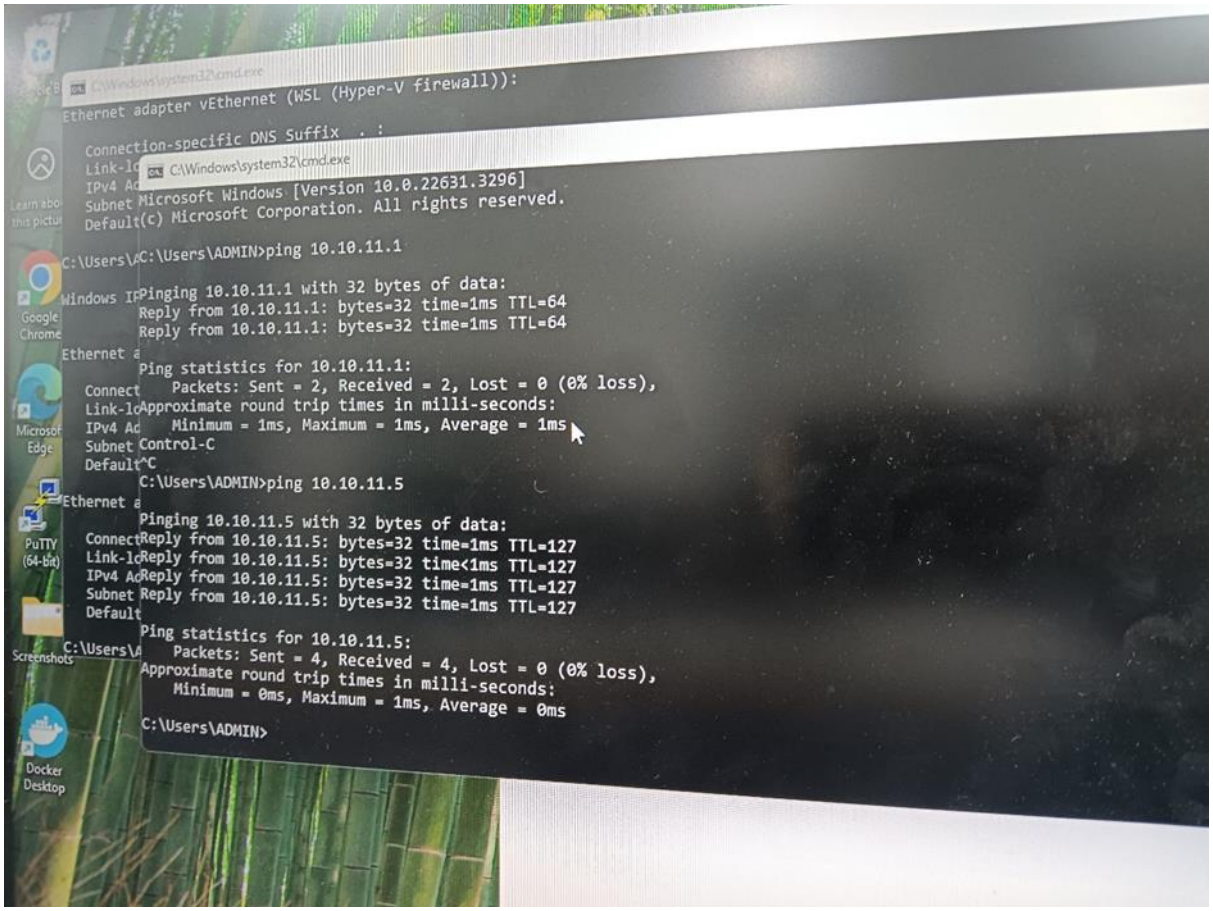

switch9b5a85(config-if)#no ip address
switch9b5a85(config-if)#no ip add dhcp
switch9b5a85(config-if)#10.10.11.1 255.255.255.0
% Unrecognized command
switch9b5a85(config-if)#ip add 10.10.11.1 255.255.255.0
switch9b5a85(config-if)#ex
switch9b5a85(config)#do show ip interface
IP Address I/F I/F Status Type Directed Prec Redirect Status
admin/oper Broadcast
10.10.10.1/24 vlan 2 UP/DOWN Static disable No enable Valid
10.10.11.1/24 vlan 1 UP/UP Static disable No enable Valid
switch9b5a85(config)#int gi 1
switch9b5a85(config-if)#switchport mode trunk
switch9b5a85(config-if)#switchport mode trunk
27-Mar-2024 05:18:50 %LINK-I-Up: Vlan 2
switch9b5a85(config-if)#
switch9b5a85(config-if)#
switch9b5a85(config-if)#int gi 3
switch9b5a85(config-if)#switchport
switch9b5a85(config-if)#switchport mode access
switch9b5a85(config-if)#switchport access vlan 2
switch9b5a85(config-if)#ip address 10.10.10.11 255.255.255.0
Duplicate IP subnet. Subnet 10.10.10.0 with mask 255.255.255.0 is in use by interface VLAN 2.
switch9b5a85(config-if)#int gi 4
switch9b5a85(config-if)#switchport mode access
switch9b5a85(config-if)#switchport access vlan 2
switch9b5a85(config-if)#exit
switch9b5a85(config)#do show vlan
Created by: D-Default, S-Static, G-GVRP, R-Radius Assigned VLAN, V-Voice VLAN
Vlan Name Tagged Ports UnTagged Ports Created by
1 1 gi1-2,gi5-28,Po1-8 D
2 2 gi1 gi3-4 S
switch9b5a85(config)#27-Mar-2024 05:36:48 %AAA-I-DISCONNECT: User CLI session for user cisco over console , source 0.0.0.0 destination 0.0.0.0 TERMINATED. The Telnet/SSH session may still be connected.
Console baud-rate auto detection is enabled, press Enter twice to complete the detection process
Type here to search
26°C
ENG
12:03
27-03-2024



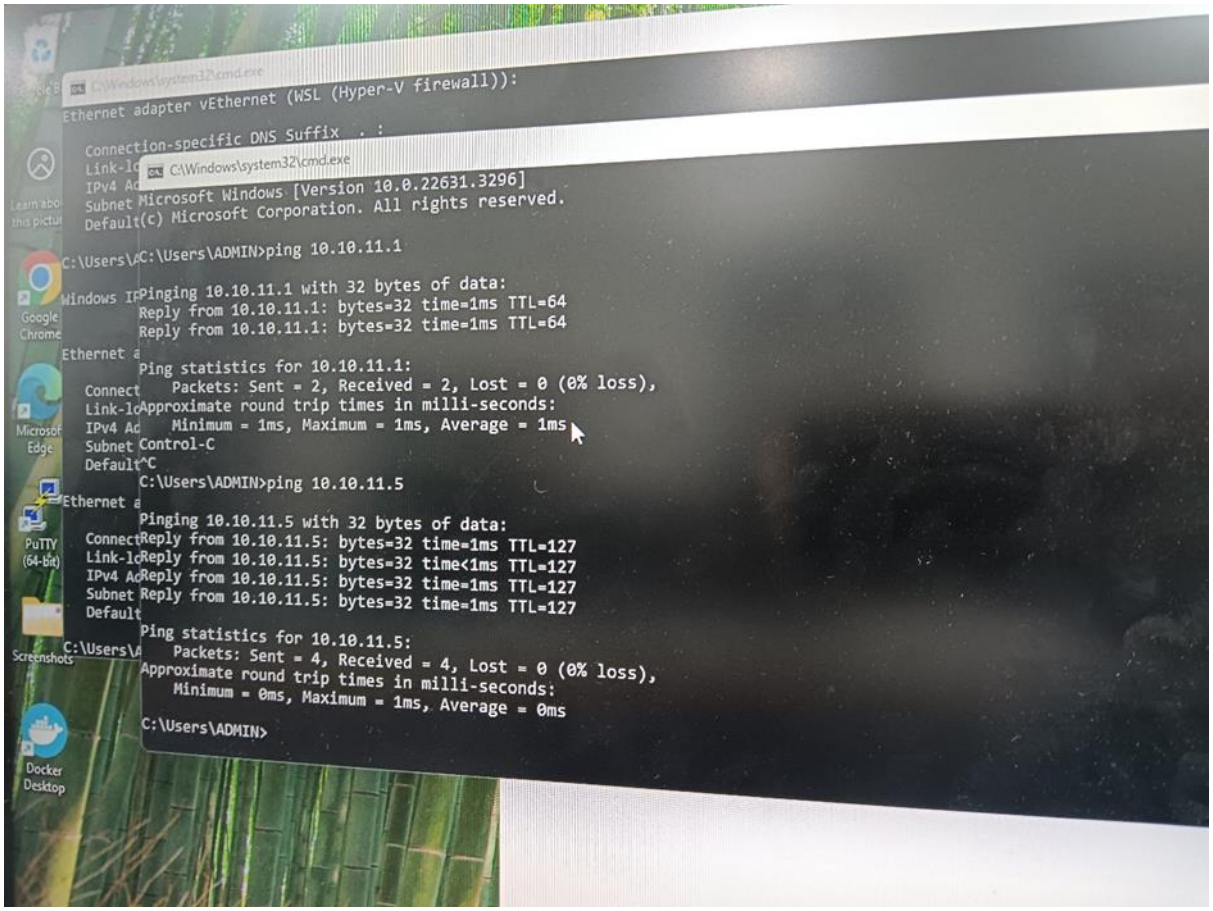
Question 3: You have been tasked with configuring the IP addresses for a campus network consisting of multiple buildings and floors. The network should use the IP address range 10.0.0.0/16. Each building should have a unique third octet, and each floor within a building should have a unique fourth octet. For example, the first building might use the third octet 10.1, and the first floor within that building might use the fourth octet 1. The core switch should be located in Building 1 and should have the IP address 10.1.0.1. After configuring the network, you notice that devices in different buildings cannot communicate with each other. How would you troubleshoot this problem?

```
C:\Users\HP>ping 10.10.12.5

Pinging 10.10.12.5 with 32 bytes of data:
Request timed out.
Reply from 10.10.11.5: Destination host unreachable.
Request timed out.
Request timed out.

Ping statistics for 10.10.12.5:
    Packets: Sent = 4, Received = 1, Lost = 3 (75% loss),

C:\Users\HP>ping 10.10.12.5

Pinging 10.10.12.5 with 32 bytes of data:
Reply from 10.10.12.5: bytes=32 time<1ms TTL=127
Reply from 10.10.12.5: bytes=32 time=1ms TTL=127
Reply from 10.10.12.5: bytes=32 time=1ms TTL=127
Reply from 10.10.12.5: bytes=32 time=1ms TTL=127

Ping statistics for 10.10.12.5:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\Users\HP>
```

```
hostname switch9b65bc
username cisco password encrypted $15$Ym3hlyDnA3nl3eMd$vCGs/UlAD6nGczL2bpA4CXmT+ZUfB8wd/88Z+kx1Dc
!
interface vlan 1
 ip address 10.10.11.1 255.255.255.0
 no ip address dhcp
!
interface vlan 2
 ip address 10.10.12.1 255.255.255.0
!
interface GigabitEthernet2
 switchport access vlan 2
!
interface GigabitEthernet3
 switchport access vlan 3
!
exit
switch9b65bc# do show vlan
Created by: D-Default, S-Static, G-GVRP, R-Radius Assigned VLAN, V-Voice VLAN

Vlan       Name            Tagged Ports      UnTagged Ports      Created by
---- ---------------- ----------------- ----------------- ----------------
 1          1                            gi1,gi4-28,Po1-8         D
 2          2                                  gi2                S

switch9b65bc#do show ip interface


    IP Address        I/F    I/F Status  Type   Directed  Prec Redirect Status
                             admin/oper         Broadcast
----------------- --------- ---------- ------- --------- ---- -------- ------
10.10.11.1/24     vlan 1    UP/UP      Static  disable   No   enable   Valid
10.10.12.1/24     vlan 2    UP/UP      Static  disable   No   enable   Valid

switch9b65bc#
```



4 Design a simple home network : Assume- 2 wired and 4 wireless devices are available at home. Use Network switch to configure the environment..

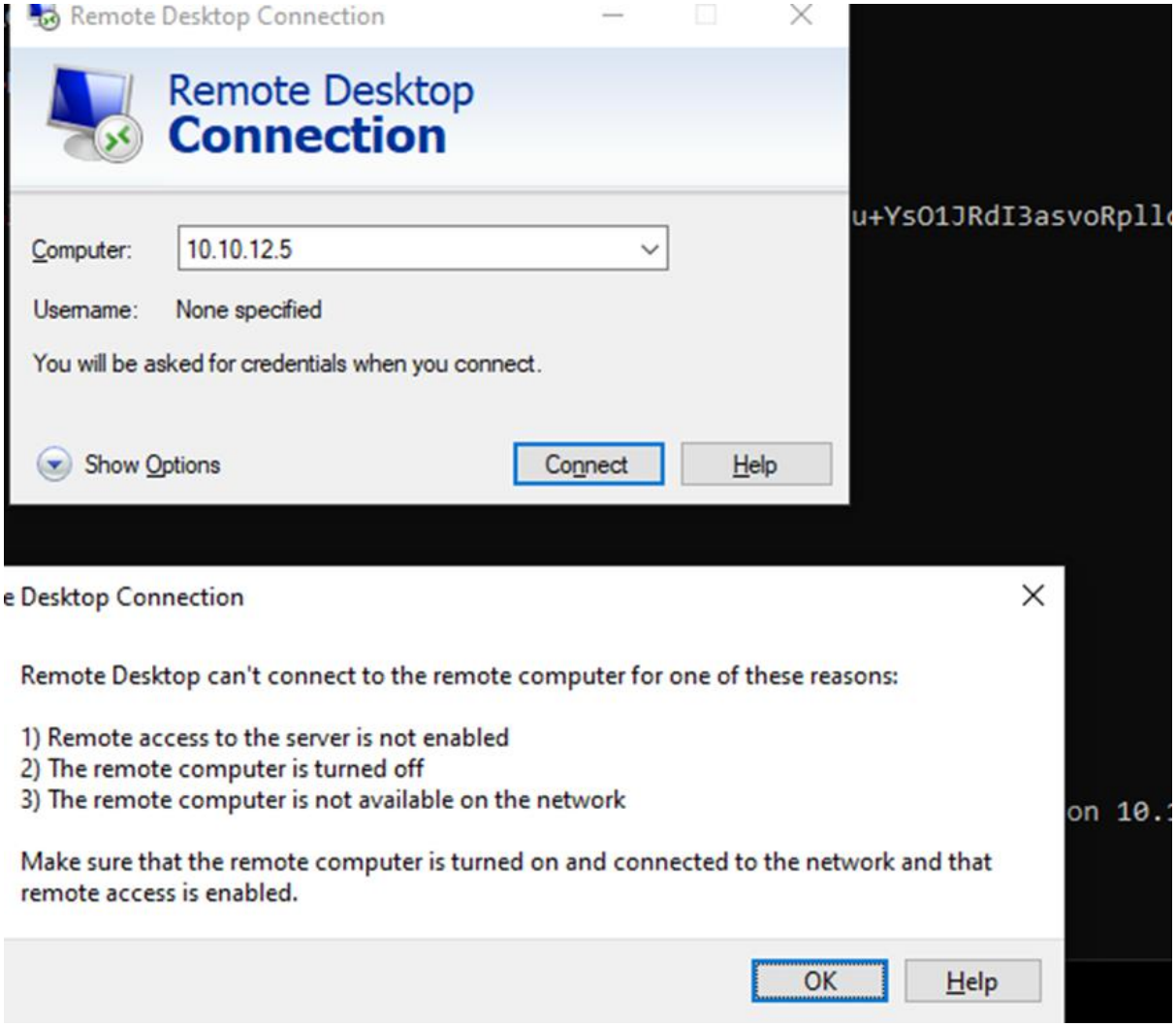


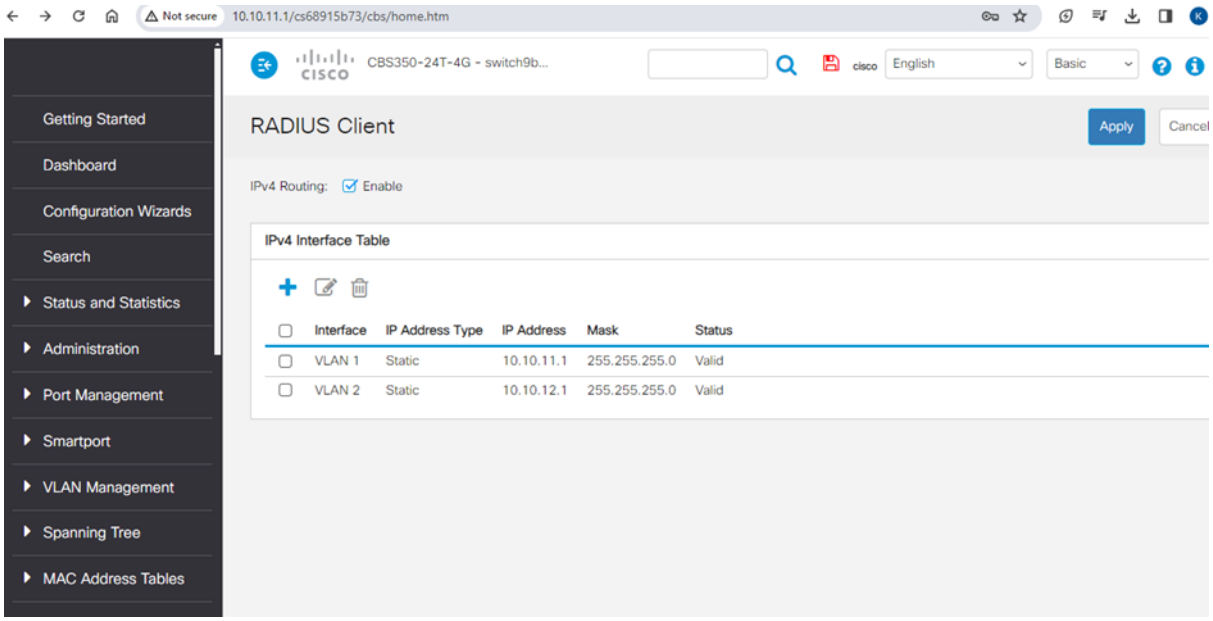

```
C:\Users\HP>ping 10.10.12.5

Pinging 10.10.12.5 with 32 bytes of data:
Request timed out.
Reply from 10.10.11.5: Destination host unreachable.
Request timed out.
Request timed out.

Ping statistics for 10.10.12.5:
    Packets: Sent = 4, Received = 1, Lost = 3 (75% loss),

C:\Users\HP>ping 10.10.12.5

Pinging 10.10.12.5 with 32 bytes of data:
Reply from 10.10.12.5: bytes=32 time<1ms TTL=127
Reply from 10.10.12.5: bytes=32 time=1ms TTL=127
Reply from 10.10.12.5: bytes=32 time=1ms TTL=127
Reply from 10.10.12.5: bytes=32 time=1ms TTL=127

Ping statistics for 10.10.12.5:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 1ms, Average = 0ms

C:\Users\HP>
```

```
hostname switch9b65bc
username cisco password encrypted $15$Ym3hlyDnA3nl3eMd$vCGs/UlAD6nGczL2bpA4CXmT+ZUfB8wd/88Z+kx1Dc
!
interface vlan 1
 ip address 10.10.11.1 255.255.255.0
 no ip address dhcp
!
interface vlan 2
 ip address 10.10.12.1 255.255.255.0
!
interface GigabitEthernet2
 switchport access vlan 2
!
interface GigabitEthernet3
 switchport access vlan 3
!
exit
switch9b65bc# do show vlan
Created by: D-Default, S-Static, G-GVRP, R-Radius Assigned VLAN, V-Voice VLAN

Vlan       Name           Tagged Ports      UnTagged Ports      Created by
---- ----------------- ----------------- ------------------ ----------------
 1           1                            gi1,gi4-28,Po1-8         D
 2           2                                 gi2                 S

switch9b65bc#do show ip interface


    IP Address        I/F    I/F Status  Type   Directed  Prec Redirect Status
                             admin/oper         Broadcast
------------------ --------- ---------- ------- --------- ---- -------- ------
10.10.11.1/24      vlan 1    UP/UP      Static  disable   No   enable   Valid
10.10.12.1/24      vlan 2    UP/UP      Static  disable   No   enable   Valid

switch9b65bc#
```

Imagine you're a system administrator, and one of your company's Linux servers has become unresponsive. You suspect a minor configuration issue and need to access the server remotely to fix it.How can you use SSH on Windows 10 to connect to the server and troubleshoot the problem?

```
oice vlan oui-table add 000fe2 H3C_Aolynk
oice vlan oui-table add 0060b9 Philips_and_NEC_AG_phone
oice vlan oui-table add 00d01e Pingtel_phone
oice vlan oui-table add 00e075 Polycom/Veritel_phone
oice vlan oui-table add 00e0bb 3Com_phone
onjour interface range vlan 1
ostname switch9b65bc
sername cisco password encrypted $15$Ym3h1yDnA3nl3eMd$vCGs/U1AD6nGczL2bpA4CXmT+ZUfB8wd/88Z+kx1Ddzatu+YsO1JRdI3asvoRplld
xGix/Ot7wSQkRM43PqFA== privilege 15
p ssh server

nterface vlan 1
ip address 10.10.11.1 255.255.255.0
no ip address dhcp

nterface vlan 2
ip address 10.10.12.1 255.255.255.0

nterface GigabitEthernet2
switchport access vlan 2

nterface GigabitEthernet3
switchport access vlan 3

xit
witch9b65bc# 02-Apr-2024 05:03:38 %AAA-I-DISCONNECT: http connection for user cisco, source 10.10.11.5 destination 10.1
.11.1 TERMINATED
onnection to 10.10.11.1 closed.

:\Users\HP>
```


Remote Desktop Connection
Remote Desktop
Connection
Computer:
10.10.12.5
Username:
None specified
You will be asked for credentials when you connect.
Show Options
Connect
Help
u+YsO1JRdI3asvoRpll
e Desktop Connection
Remote Desktop can't connect to the remote computer for one of these reasons:
1) Remote access to the server is not enabled
2) The remote computer is turned off
3) The remote computer is not available on the network
Make sure that the remote computer is turned on and connected to the network and that remote access is enabled.
OK
Help
on 10.


Not secure
10.10.11.1/cs68915b73/cbs/home.htm
CBS350-24T-4G - switch9b...
English
Basic
Getting Started
Dashboard
Configuration Wizards
Search
Status and Statistics
Administration
Port Management
Smartport
VLAN Management
Spanning Tree
MAC Address Tables
RADIUS Client
Apply
Cancel
IPv4 Routing:
Enable
IPv4 Interface Table
Interface
IP Address Type
IP Address
Mask
Status
VLAN 1
Static
10.10.11.1
255.255.255.0
Valid
VLAN 2
Static
10.10.12.1
255.255.255.0
Valid