LAB: Assignment 4

1. **Discuss the GNS simulation environment.**
2. **Consider the following information Table:**

VPCS	PC1	PC2
IP Address	192.168.1.1	192.168.1.2
Subnet Mask	255.255.255.0	255.255.255.0
Default Gateway	192.168.1.100	192.168.1.100
DNS Server	192.168.1.100	192.168.1.100

Creating Topology

- In the GNS3 console, drag an Ethernet Switch in the work view area.
- Drag two VPCS machines in the work view area.
- Connect PC1 to port 1 of Ethernet switch and connect PC2 to port 2 ofEthernet switch.
- Right-click on PC1 and then select Start to start it. Similarly, start PC2 also.
- The following figure shows how to add VPCS in GNS3

Syntax to configure IP address on VPCS in GNS3

Once you have created the preceding topology in GNS3, the next task is configuring IP addresses and other TCP/IP settings on VPCS machines. In order to configure IP addresseson VPCS in GNS3, you need to perform the following steps:

1. Select and right-click PC1 and select Console to open its console. The CLIprompt window will be displayed.
2. In the CLI prompt window, use the following syntax to configure TCP/IPsettings on the VPCS.

   ip <IP Address> </Subnet Mask> <Default Gateway>

3. Next, use the following syntax to configure DNS server IP address.ip dns <DNS server IP address>
4. If you want to obtain TCP/IP setting on VPCS machine using the DHCP server, use the following syntax to obtain the TCP/IP settings from the DHCP server.

   ip dhcp

5. Once you have configured appropriate IP addresses on a VPCS machine, usethe following command to view the TCP/IP settings.

   show ip

Configure TCP/IP settings on VPCS PC1

1. First, execute the following command on PC1 to configure 192.168.1.1/24 IPaddress and 192.168.1.100 as the default gateway.

   PC1>ip 192.168.1.1 /24 192.168.1.100

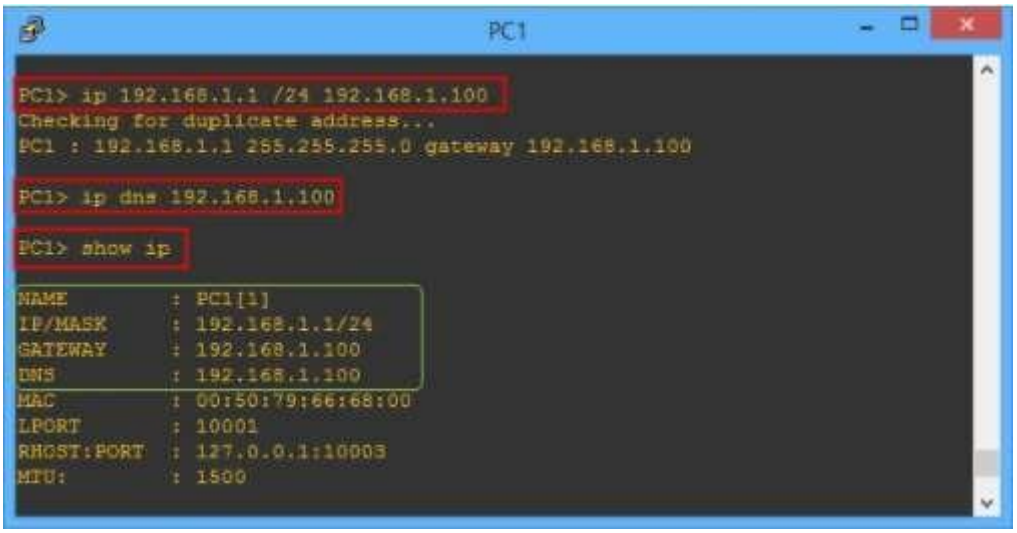
2. Next, execute the following command to configure 192.168.1.100 as DNSserver IP address.

   PC1>ip dns 192.168.1.100

3. Next, execute the following command to view the TCP/IP settings on VPCSPC1.

   PC1>show ip

4. The following figure shows the TCP/IP configuration of VPCS PC1.



Configure TCP/IP settings on VPCS PC2

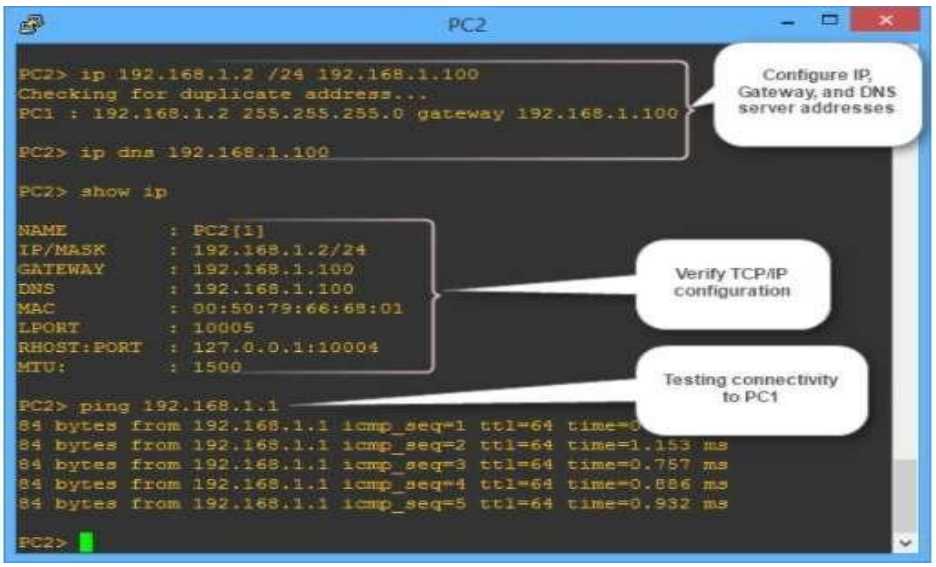
1. Execute the following command on PC2 to configure 192.168.1.1/24 IPaddress and 192.168.1.100 as the default gateway.
   PC2>ip 192.168.1.2 /24 192.168.1.100

2. Next, execute the following command to configure 192.168.1.100 as DNSserver IP address.

   PC2>ip dns 192.168.1.100

3. Next, execute the following command to view the TCP/IP settings on VPCSPC2.
   PC2>show ip

4. Then Test the connectivity to PC1
   PC2> ping 192.168.1.1
5. The following figure shows the TCP/IP configuration of VPCS PC2



6. If you have misconfigured the TCP/IP settings or want to remove the TCP/IPsetting on a VPCS machine, use the following command.

   PC>clear ip