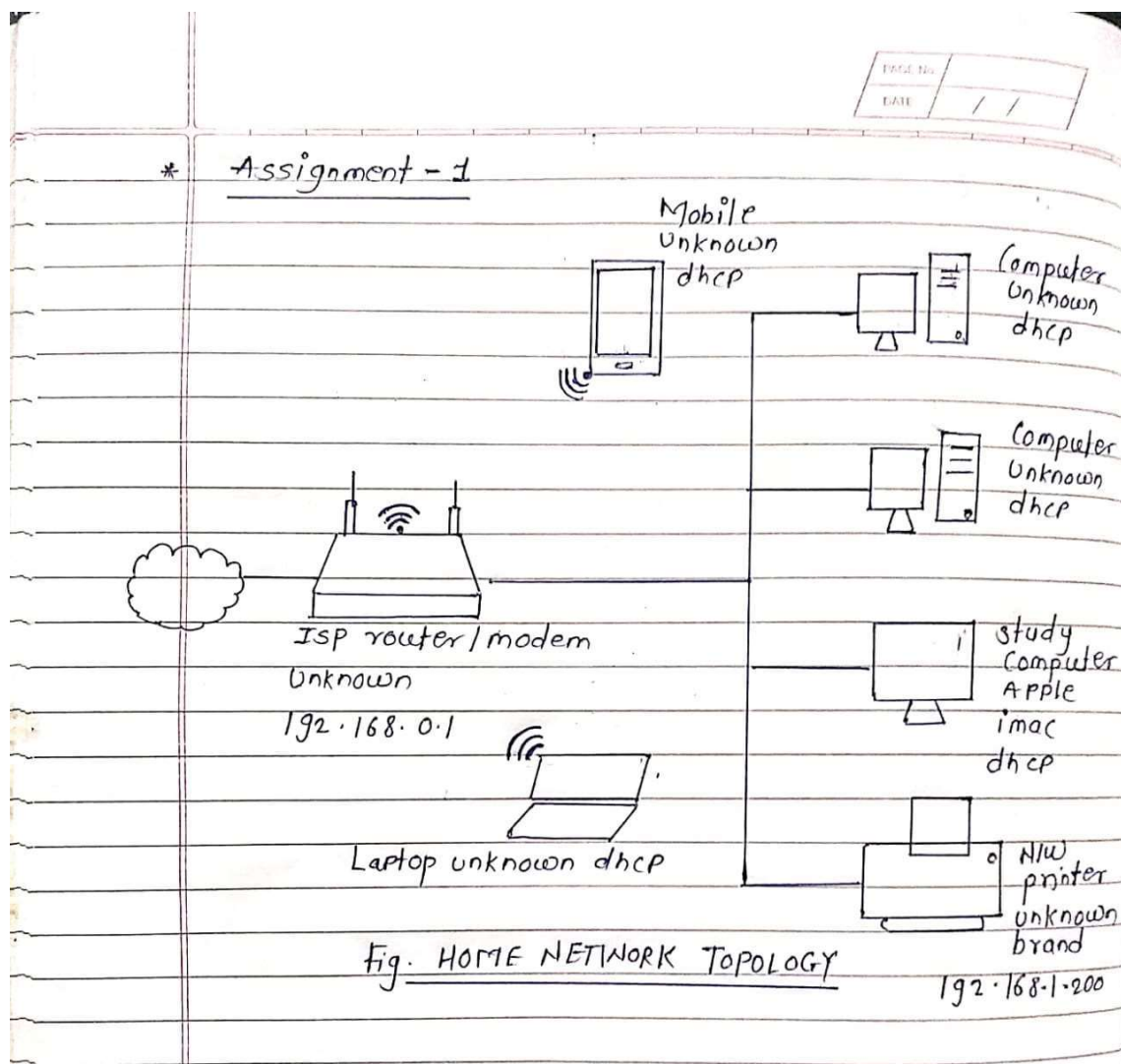


Assignment 1

Draw your Home Network Topology and explain how you are accessing the Any(College lab , office lab) Lab environment.

Ans:- Creating a diagram of a home network topology that includes access to a lab environment, such as a college or office lab, can be helpful to understand how these connections work. I'll outline a scenario and then provide an explanation based on that scenario.



How You Access the college Lab Environment

1.Connection Initiation: From your computer at home, you start by connecting to your local internet through your router.

2.VPN Use:You initiate a VPN connection using client software configured on your computer. This VPN software establishes a secure and encrypted connection to the remote lab's network. This ensures that all data transmitted between your home and the lab is secure from eavesdropping or interception.

3.Authentication:As part of the VPN connection, you must authenticate yourself using credentials provided by your college or office. This might include a username, password, and possibly a second factor like a secure token or a mobile app notification.

4.Network Access:Once the VPN connection is established and authenticated, your computer acts as if it is directly on the lab's network. You can access resources such as servers, printers, and stored files as if you were physically present in the lab.

5.Work as Usual: You can operate on the lab's network, use its resources, run experiments, and access restricted databases securely from your home.

This setup is essential for professionals and students who need to access sensitive or large computational resources remotely, ensuring productivity and resource access regardless of physical location.