**Assignment 2:**

Draw your Home Network Topology and explain how you are accessing the RPS Lab environment.

**HOME NETWORK TOPOLOGY**

[Internet]

|

|

[Modem]

|

[Router]

|

|----[Laptop]

|

|----[Smartphone1]

|

|----[Smartphone2]

|

|----[Smartphone3]

|

|----[Smartphone4]

|

|----[Smart TV]

|

|----[Printer]

|

|----[NAS (Network Attached Storage)]

**Accessing the RPS Lab Environment**

To access the RPS Lab environment from this home network, the following steps are typically involved:

1. **Secure Remote Access**:
   * **VPN (Virtual Private Network)**: Establish a secure connection to the RPS Lab network. This encrypts the data and provides a secure tunnel through the Internet to the lab environment.
   * **SSH (Secure Shell)**: A protocol used to securely log in to remote systems. Often used for accessing command-line interfaces on servers within the lab.
2. **Lab Environment**:
   * **RPS Lab Network**: The network infrastructure within the lab where various servers, workstations, and other resources are located.
   * **Accessing Lab Resources**: Once connected to the VPN, use SSH or other remote access tools (like Remote Desktop Protocol (RDP) for graphical interfaces) to interact with the lab environment.

**Detailed Access Workflow:**

1. **Connect to VPN**:
   * Use VPN client software on the Desktop Computer or Laptop.
   * Enter VPN credentials to establish a secure connection to the RPS Lab network.
2. **Use SSH**:
   * Open a terminal on the Desktop Computer or Laptop.
   * Use the ssh command to connect to a specific server or workstation within the RPS Lab.
   * Example command: ssh username@lab-server-ip-address
3. **Perform Tasks in RPS Lab**:
   * Once logged in via SSH, execute commands, run programs, or manage resources within the lab environment as needed.

By following these steps, a user can securely access and interact with the RPS Lab environment from their home network.