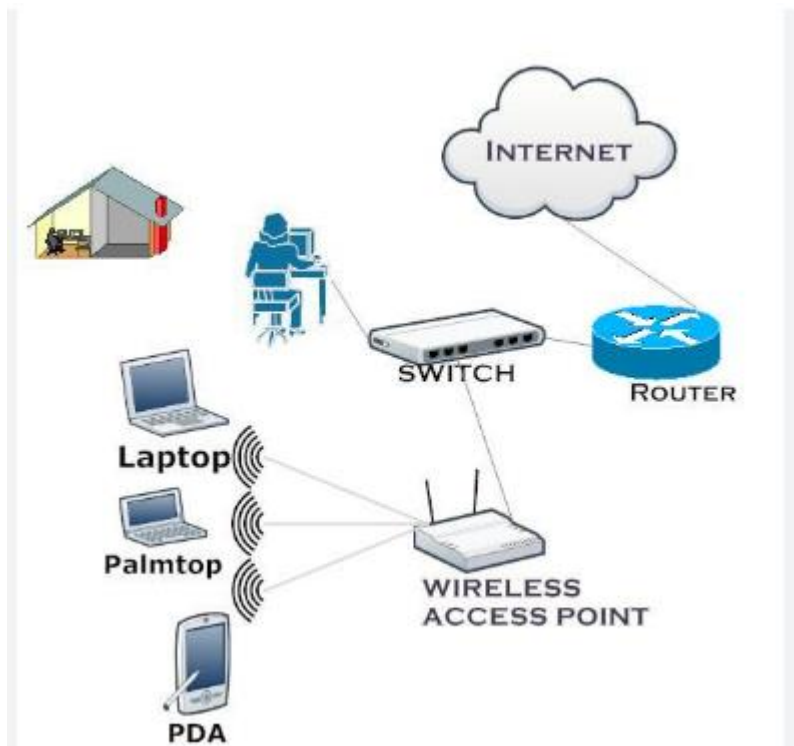


Assignment-1

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

Home Network Topology

1. **Internet:** The connection provided by the Internet Service Provider (ISP).
2. **Modem:** The device that connects to the ISP and provides an internet connection to the home network.
3. **Router:** The device that routes traffic between the modem and all devices in the home network. Often, the router also includes Wi-Fi capabilities.
4. **Switch** (optional): An additional device that expands the number of wired connections available in the network.
5. **Devices:** Various devices connected to the network, including:
 - Desktop/laptop computers
 - Smartphones
 - Tablets
 - Smart TVs
 - IoT devices (e.g., smart speakers, security cameras)



Accessing the RPS Lab Environment

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

VPN Connection: Establish a secure VPN (Virtual Private Network) connection to the organization's network. This ensures secure and encrypted communication between the home network and the RPS Lab environment.

- **VPN Client:** Software installed on the home device that allows it to connect to the VPN server.
- **VPN Server:** A server configured to handle VPN connections, typically located within the organization's network.

Remote Desktop Protocol (RDP) or SSH: Use Remote Desktop Protocol (RDP) for graphical access or SSH (Secure Shell) for command-line access to connect to the RPS Lab machines.

- **RDP Client:** Software like Microsoft Remote Desktop used to connect to a remote computer.
- **SSH Client:** Software like PuTTY or the terminal's built-in SSH command used to connect to a remote server.

Credentials and Access: Use the provided credentials (username and password) to log into the RPS Lab environment. Access to specific machines or resources is often controlled by the organization's IT policies.

- The **Device with VPN Client** could be a home computer, laptop, or any other device configured to connect to the VPN.
- The **VPN Tunnel** represents the secure, encrypted connection established by the VPN client and server.
- Once connected to the VPN, the device can use tools like RDP or SSH to access the machines in the **RPS Lab Environment** as if it were on the same local network.