Date: 23/07/2025

Lab Practical #8:

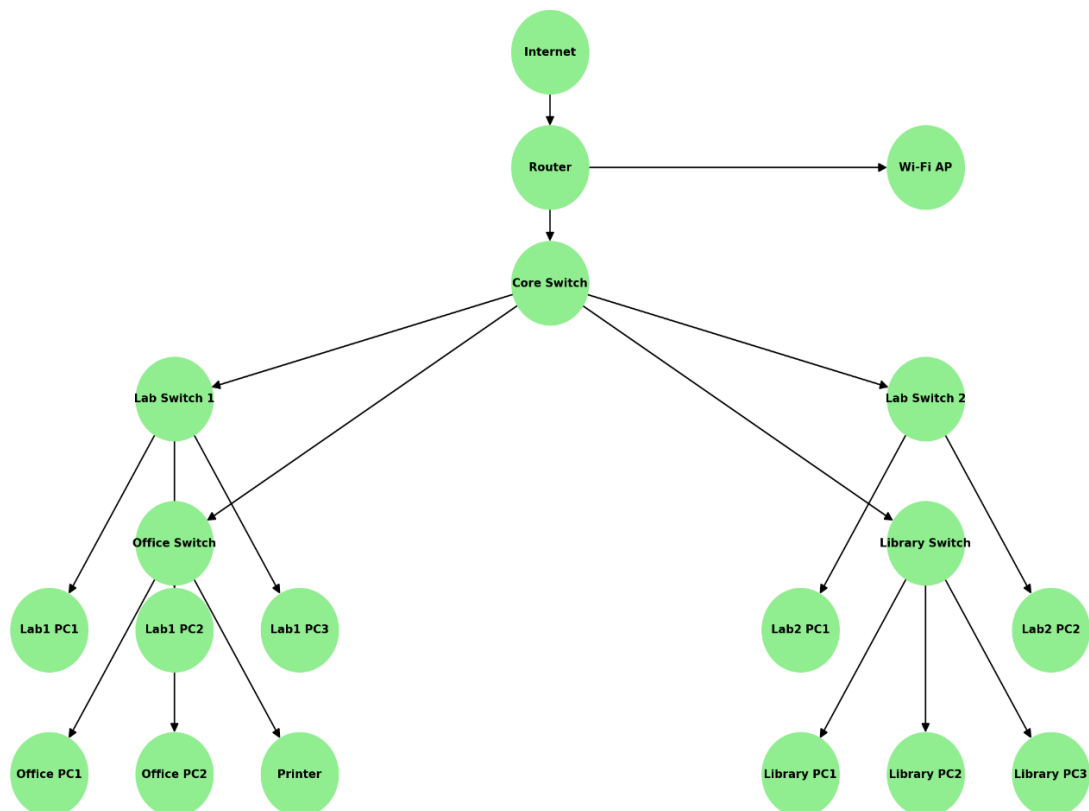Study & Survey of Institute organization network infrastructure.

Practical Assignment #8:

1. **Identify type of network in your institute. Draw a design of network in your institute (Any Lab/Floor/Building).**

   The institute uses a Local Area Network (LAN).
   - The LAN connects all computer labs, classrooms, faculty rooms, and the administrative office.
   - The LAN is further connected to the Internet using a leased broadband line.
   - The network is organized in a star topology (all devices connected via switches to a central router).

   Institute LAN Network (Multiple Labs & Offices)

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2. List how many network devices and types of cable used and give its details.

1. Router – 1

- Connects institute LAN to Internet.

2. Core Switch – 1

- Central distribution point for all lab/office/library switches.

3. Lab Switch 1 – 1

- Connects Lab 1 PCs + Office Switch.

4. Office Switch – 1

- Connects Office PCs + Printer.

5. Lab Switch 2 – 1

- Connects Lab 2 PCs + Library Switch.

6. Library Switch – 1

- Connects Library PCs.

7. Wi-Fi Access Point (AP) – 1

- Provides wireless access for staff/students.

8. End Devices (not counted as networking devices, but connected nodes):

- Lab 1 PCs → 3

- Lab 2 PCs → 2

- Office PCs → 2

- Library PCs → 3

- Printer → 1