

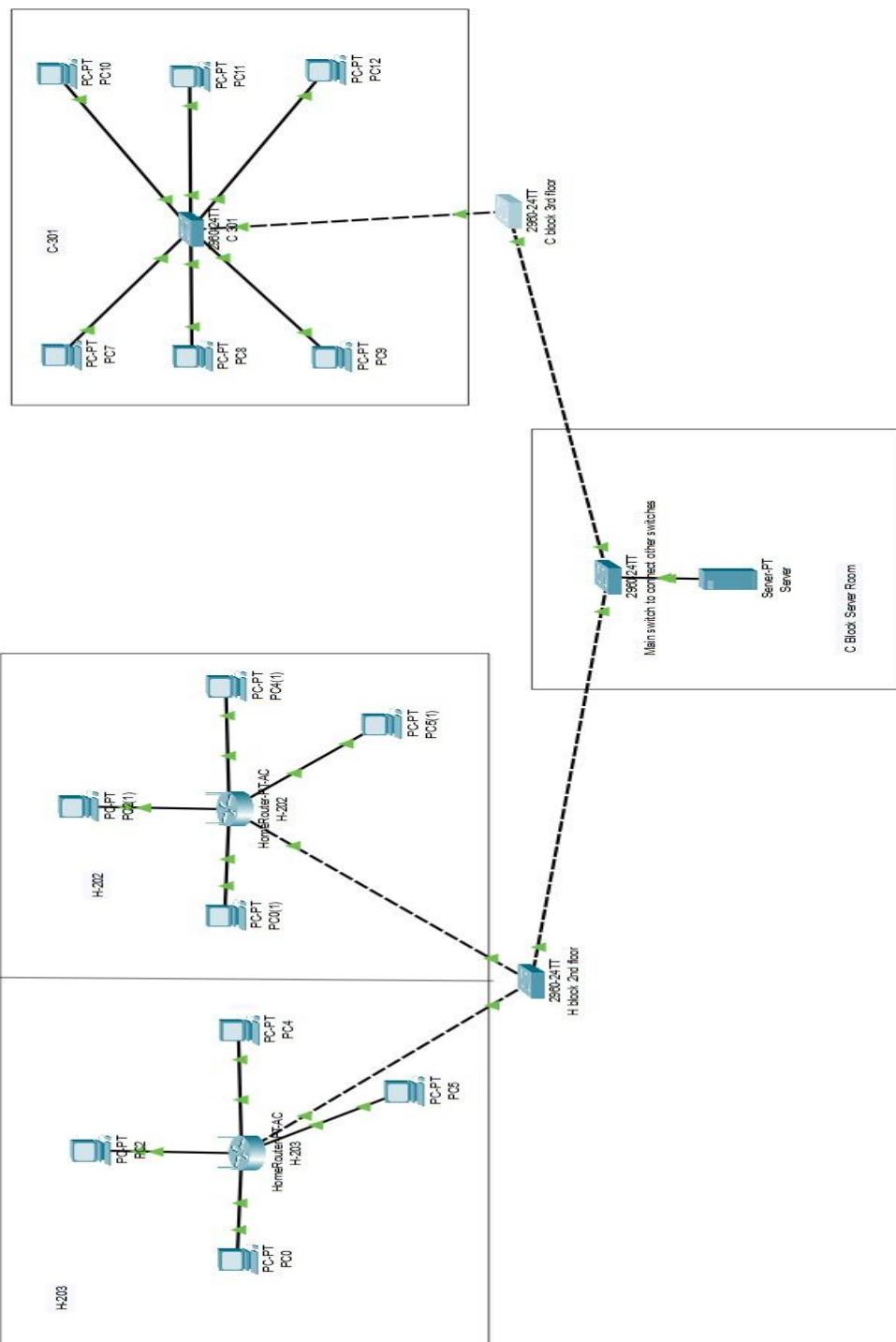
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Lab Practical #8:

Study & Survey of Institute organization network infrastructure.

Practical Assignment #8:

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





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

1. Visit Overview

- We visited the server room of Darshan University, Rajkot, to learn about its network infrastructure and how the campus network is maintained.

2. Firewall

- The staff explained how the firewall protects the university network from unauthorized access and outside threats.
- It monitors incoming and outgoing traffic to ensure secure communication.

3. NAS (Network Attached Storage)

- We saw the NAS system, which is used for storing and managing a large amount of academic and administrative data.
- It provides easy access to data for authorized users while keeping it organized and secure.

4. Switches

- Multiple switches are used to connect computers, servers, and other devices within the campus.
- These switches help manage network traffic and ensure smooth data transfer between different sections.

5. VLAN (Virtual Local Area Network)

- VLANs are configured to separate the network for different building blocks.
- This helps in reducing unnecessary data traffic and improves network performance.



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6. Network Devices Used

- **Firewalls** – For network security and threat prevention.
- **Managed Switches** – To control network flow and configure VLANs.
- **Routers** – To manage communication between external internet and internal network.
- **Servers** – To host applications, websites, and databases.

7. Types of Cables Used

- **Cat6 Ethernet Cables** – Used for connecting most network devices and providing high-speed LAN connections.
- **Fiber Optic Cables** – Used for high-speed and long-distance connections between main network switches and different building blocks.