Weekly assessment 2

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Week2- LAN Implementation

Aim:

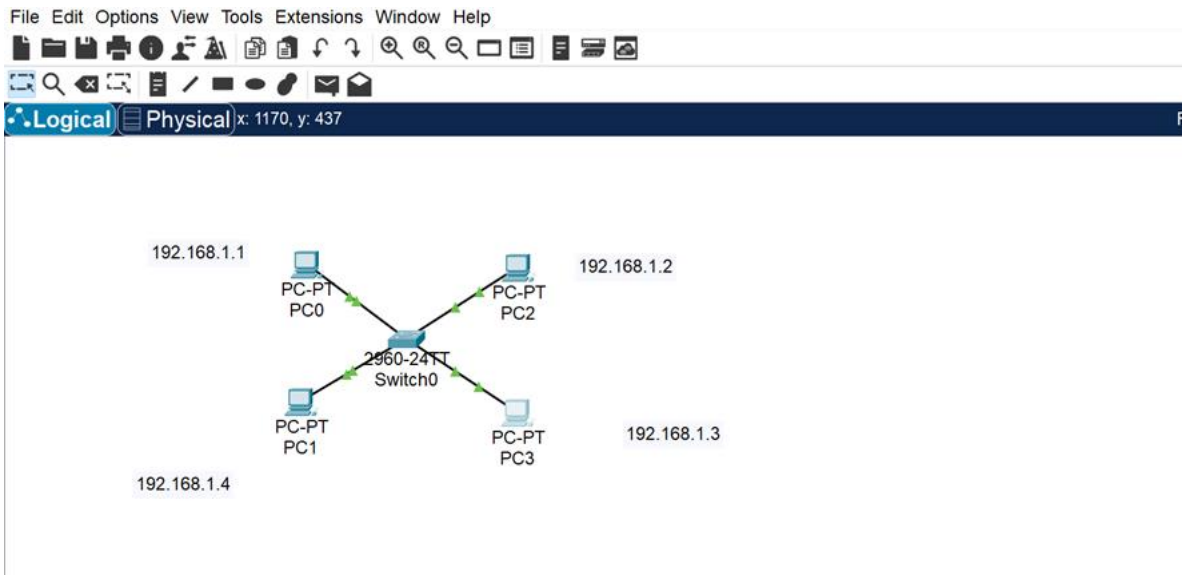
To design and implement a **wired Local Area Network (LAN)**, connect multiple devices using a **switch**, assign **IP addresses**, and verify communication using the **ping command**.

Description:

A **Local Area Network (LAN)** is a network that connects multiple computers and devices within a **limited area** such as a home, office, or lab. This project demonstrates how to set up a **wired LAN** using a **switch and PCs** in **Cisco Packet Tracer** and verify communication between devices.

Materials Required:

Device	Quantity
PCs	4
Switch	1
Copper Straight-Through Cable	4



To Implement Wired LAN:

Step 1: Adding Devices

Drag and drop:

- One switch
- 4 PCs
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Step 2: Connecting Devices

Use Copper Straight-Through Cables to connect:

PC-0 → Switch (FastEthernet0/1)

Similarly connect, PC-1,2,3.

Step 3: Configuring IP Addresses

Click on PC-0,1,2,3→ Go to Desktop → IP Configuration:

IP Address: 192.168.1.1, 192.168.1.2, 192.168.1.3, 192.168.1.4

Subnet Mask: 255.255.255.0(Type-c IP address)

Step 4: Testing Connectivity

· Open PC-0 → Desktop → Command Prompt.

Perform ‘ping’ command from our end devices and if we receive packets successfully then we have performed a successful LAN implementation (here,there are 0 Lost packets)