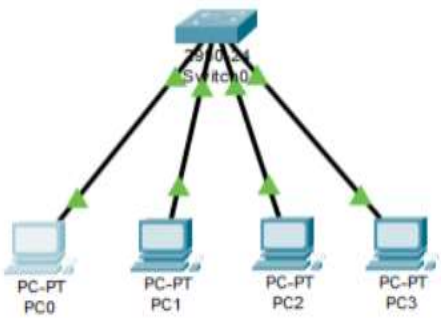
EXPERIMENT – 4

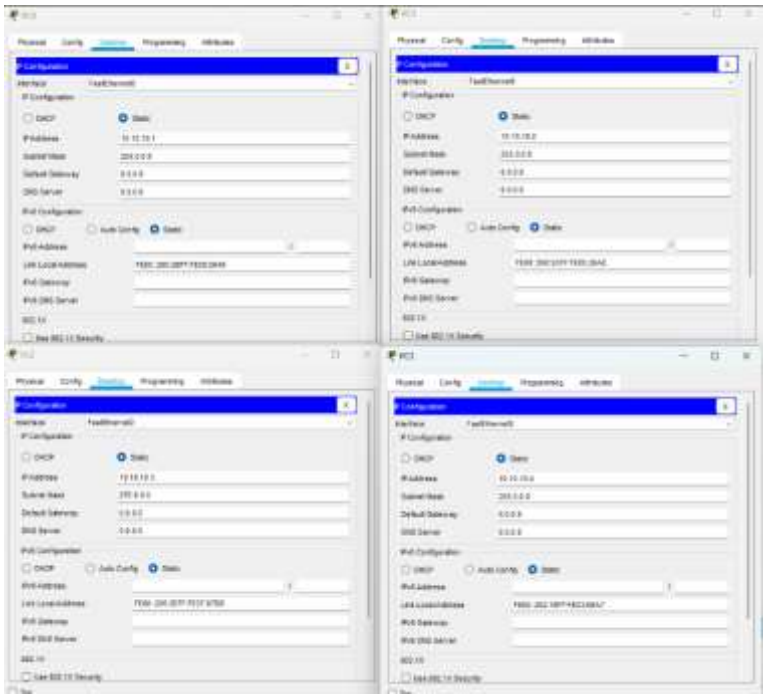
AIM: - Setup and configure a LAN (Local area network) using a Switch and Ethernet cables in your lab.

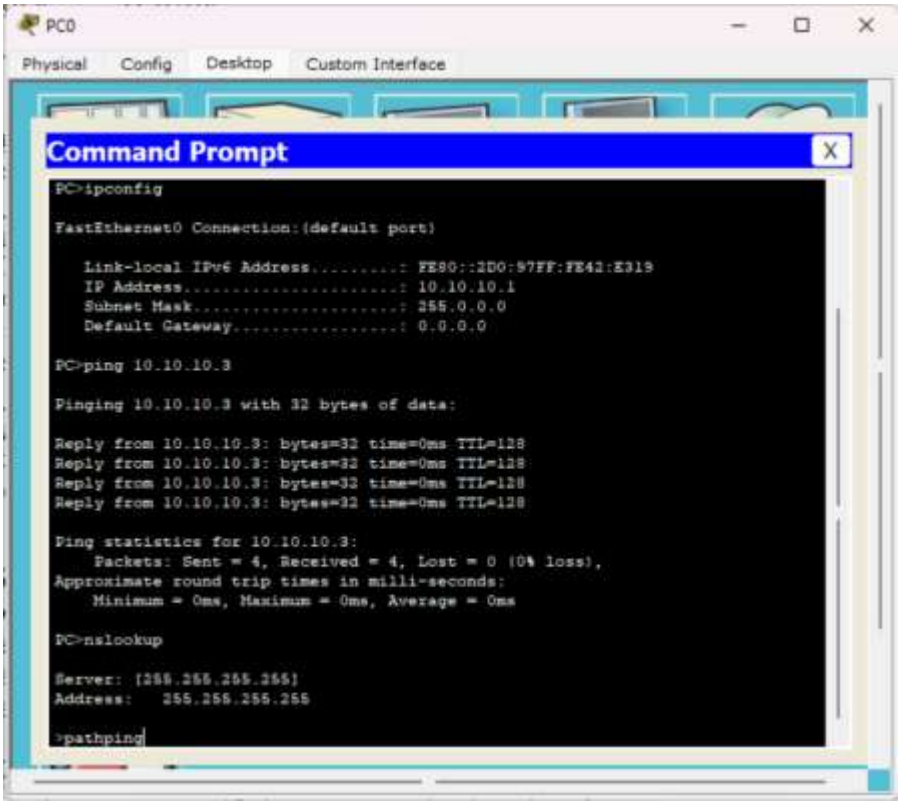
How to set up a LAN:

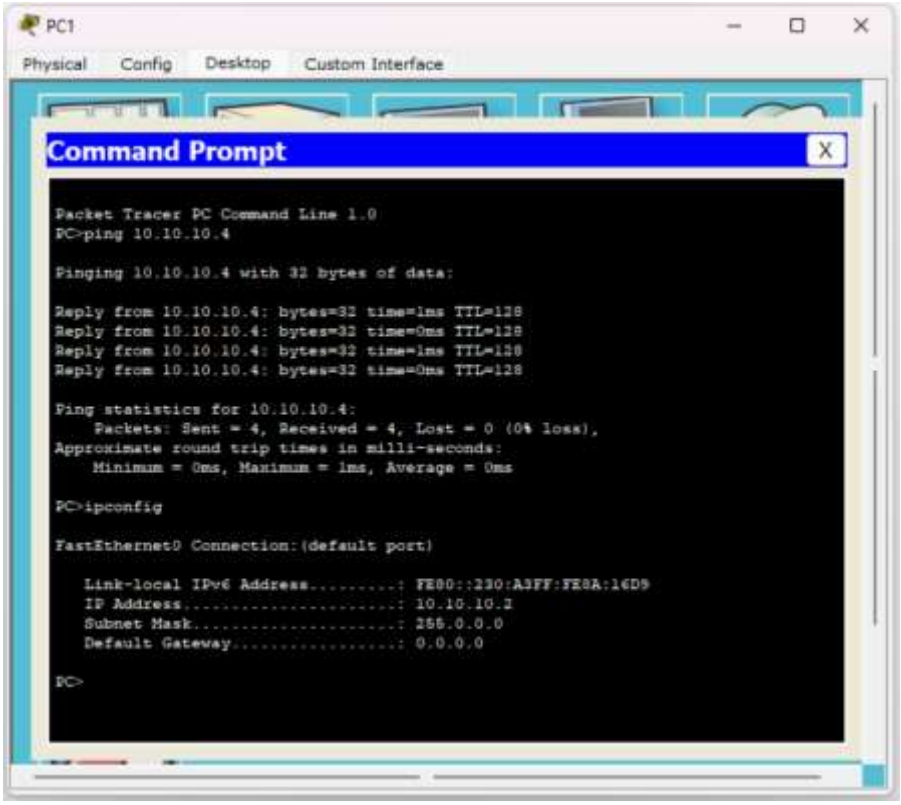
- **Plan and Design Network Topology:** Decide on network layout and equipment location.
- **Gather Equipment:** Use 4 computers, an 8/16/24-port switch, and 4 Ethernet cables.
- **Connect Devices to Switch:** Plug Ethernet cables from each computer into the switch.
- **Assign IP Addresses:**
  Log in as Administrator on each PC.
  Go to **Network and Internet Connections > Local Area Connection/Ethernet**.
  Select **Properties > TCP/IPv4 > Use the following IP address**, then assign:
  - PC1: 10.1.1.1, Subnet Mask: 255.0.0.0
  - PC2: 10.1.1.2, Subnet Mask: 255.0.0.0
  - PC3: 10.1.1.3, Subnet Mask: 255.0.0.0
  - PC4: 10.1.1.4, Subnet Mask: 255.0.0.0
- **Configure the Switch:** Connect a computer to the switch and log in to its web interface. Set the switch's IP address to 10.1.1.5, Subnet Mask: 255.0.0.0.
- **Verify Connectivity:** Use the **ping** command to test connection between devices.
- **Share Folder:** Select a folder, go to **Properties > Sharing tab**, and share it with everyone on the LAN.
- **Access Shared Folder:** Try accessing the shared folder from other network computers.

OUTPUT: -









RESULT: -

LAN Configuration using Switch has been done and studied successfully.