**1. Set Up the Network**

**1.1. Add Devices**

1. **Launch Cisco Packet Tracer:**
   * Open Cisco Packet Tracer on your computer.
2. **Add PCs:**
   * Drag and drop 10 **PC** devices onto the workspace.
3. **Add Switches:**
   * Drag and drop 2 **Switch** devices (e.g., **2960**) onto the workspace.

**1.2. Connect Devices**

1. **Connect PCs to Switches:**
   * Click on the **"Connections"** tool (lightning bolt icon).
   * Select **Copper Straight-Through** cable.
   * Click on a **PC** and select the **FastEthernet0** port.
   * Click on a **Switch** and select an available **FastEthernet** port (e.g., **Fa0/1**).
   * Repeat for the remaining PCs and switches.
2. **Interconnect Switches (Optional for Larger Networks):**
   * If you want Switch 1 and Switch 2 to communicate directly:
     + Click on **Copper Straight-Through** cable.
     + Click on **Switch 1** and select an available **FastEthernet** port (e.g., **Fa0/24**).
     + Click on **Switch 2** and select an available **FastEthernet** port (e.g., **Fa0/24**).

**2. Configure IP Addresses**

**2.1. Configure IP Addresses on PCs**

1. **Open PC Configuration:**
   * Click on **PC1** and go to the **"Desktop"** tab.
   * Open **"IP Configuration"**.
2. **Assign IP Address:**
   * Set the IP address, subnet mask, and default gateway. For example:
     + **PC1:**
       - IP Address: 192.168.1.2
       - Subnet Mask: 255.255.255.0
     + **PC2 to PC5:**
       - Assign IP addresses in the same subnet (e.g., 192.168.1.3 to 192.168.1.5).
3. **Repeat for PCs on Switch 2:**
   * **PC6:**
     + IP Address: 192.168.2.2
     + Subnet Mask: 255.255.255.0
   * **PC7 to PC10:**
     + Assign IP addresses in the same subnet (e.g., 192.168.2.3 to 192.168.2.5).

**3. Test and Send Messages**

**3.1. Verify Connectivity**

1. **Ping Test:**
   * Open **Command Prompt** on **PC1** (Desktop > Command Prompt).
   * If successful, repeat to ping other PCs on the same switch.
2. **Ping Between Switches:**
   * If switches are interconnected, test communication between PCs on different switches:
   * Ensure connectivity is successful. If not, check inter-switch connections and IP configurations.

**3.2. Send Messages Using Simulation Mode**

1. **Switch to Simulation Mode:**
   * Click on the **"Simulation"** tab at the bottom-left of Packet Tracer.
2. **Add Simple PDU:**
   * Click on **"Add Simple PDU"** (packet icon) in the Simulation Mode toolbar.
3. **Select Source Device:**
   * Click on **PC1** (the source of the message).
4. **Select Destination Device:**
   * Click on **PC6** (the destination for the message).
5. **Configure the Message:**
   * A dialog will appear. Click **"OK"** to send the message.
6. **Observe Packet Flow:**
   * Click the **"Play"** (triangle icon) to start the simulation.
   * Watch the packet flow from **PC1** to **PC6** across the switches.

**3.3. Examine Packet Details**

1. **View Packet Details:**
   * Click on the **packet** in the simulation window to view details about the packet’s journey and processing.
2. **Check Received Message:**
   * On **PC6**, open **Command Prompt** to verify if the message has been received or not.

**Summary**

* **Set Up Network:** Add and connect 10 PCs and 2 switches.
* **Configure IP Addresses:** Assign IP addresses to each PC.
* **Test Connectivity:** Use ping tests to verify network communication.
* **Send Messages:** Use Simulation Mode to send and observe messages between PCs.

By following these steps, you can successfully set up a network in Cisco Packet Tracer, connect devices, and simulate sending messages between PCs.

