



National University of Computer & Emerging Sciences, Karachi
Computer Science Department
Fall 2024, Lab Tasks - 08



Course Code: CL-1000	Course: Introduction to Information and Communication Technology (IICT)
Instructor(s):	Yumna Asif

Task: Create a Star Topology and Send Data Using Simulation Mode.

Instructions:

1. Open Cisco Packet Tracer.
2. Add Devices:
 - From the Network Devices section:
 - Drag 1 switch (e.g., 2960-24TT Switch).
 - From the End Devices section:
 - Add 2 PCs (PC-PT).
 - Add 2 Laptops (Laptop-PT).
3. Arrange Devices:
 - Place the switch in the center.
 - Position the PCs and laptops around the switch.
4. Connect Devices using FastEthernet:
 - Use Copper Straight-Through cables for the connections:
 - PC6 → Switch FastEthernet0/1
 - PC7 → Switch FastEthernet0/2
 - Laptop0 → Switch FastEthernet0/3
 - Laptop1 → Switch FastEthernet0/4
5. Configure IP Addresses:
 - On each PC/Laptop:
 - Go to Desktop → IP Configuration.
 - Assign the following IP addresses:
 - PC1: 192.168.1.3
 - PC2: 192.168.1.4
 - Laptop1: 192.168.1.5
 - Laptop2: 192.168.1.6

6. Test Connectivity with Ping:

- Switch to Real-Time Mode.
- On PC1:
 - Go to Command Prompt and type:
ping 192.168.1.5
- Check the ping reply to ensure the connection is working.
- Repeat the ping command on other devices (PC2 and Laptops) to ping other devices. For example:
 - On Laptop0, ping PC2:
ping 192.168.1.4

7. Simulate Data Transmission in Simulation Mode:

- Switch to Simulation Mode (click the stopwatch icon at the bottom-right corner of Packet Tracer).
- On PC1, go to Command Prompt and type:
ping 192.168.1.5
- Observe the packet flow in the Simulation Window. Ensure the ping is successful.

8. Take Screenshots:

- Take screenshots of:
 1. The complete topology with FastEthernet connections visible.
 2. Command Prompt output showing successful pings between multiple devices.
 3. Packet flow during simulation mode.

9. Submit in a Word File:

- Open Microsoft Word and create a new document.
- Insert all the screenshots in the Word file in the following order:
- Topology screenshot with FastEthernet connections.
- Command Prompt output screenshots (from pings on multiple devices).
- Simulation mode screenshot.