

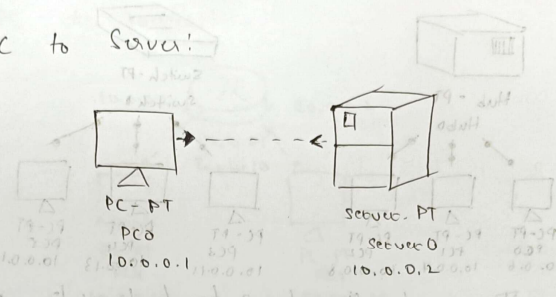
# COMPUTER NETWORKS

## EXP - 1

**TITLE: Create a Topology and simulate sending a simple PDU from source to destination using hub and switch as connecting devices and demonstrating ping message.**

Experiment 1:

1. PC to Server:



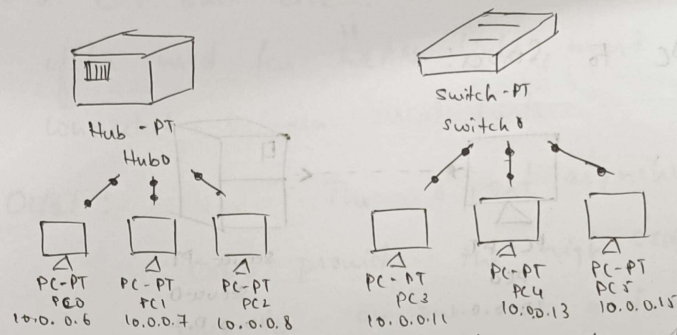
Ans: To set up a point-to-point network between a PC and a server, facilitating direct communication to observe data exchange.

Topology: A PC is connected to server using a crossover ethernet cable.

IP address of PC = 10.0.0.1, Server = 10.0.0.2

Observation: Direct connection allows PC to communicate with server, which is typical in small networks for tasks such as file sharing, service requests or testing server responses to client queries.

## 2. Hub & Switch:

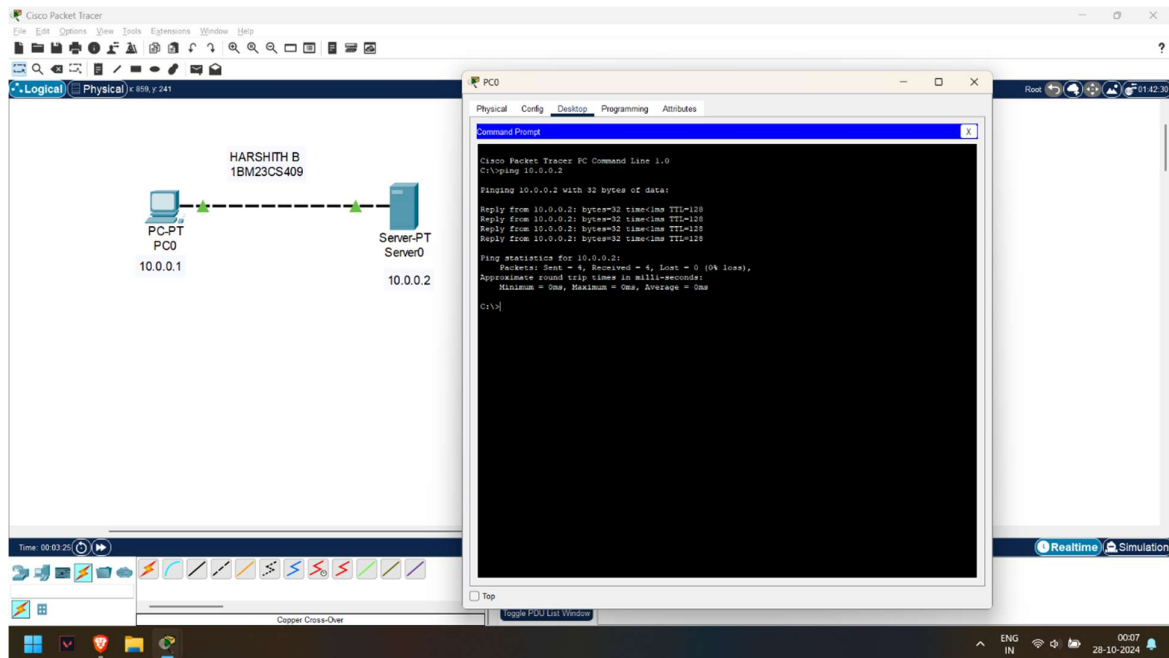


Aim: To create simple network consisting of 3 PCs connected to a central Hub and another network with 3 PCs connected to a switch. This connection will help observe the behaviour of data transmission using hub and switch devices.

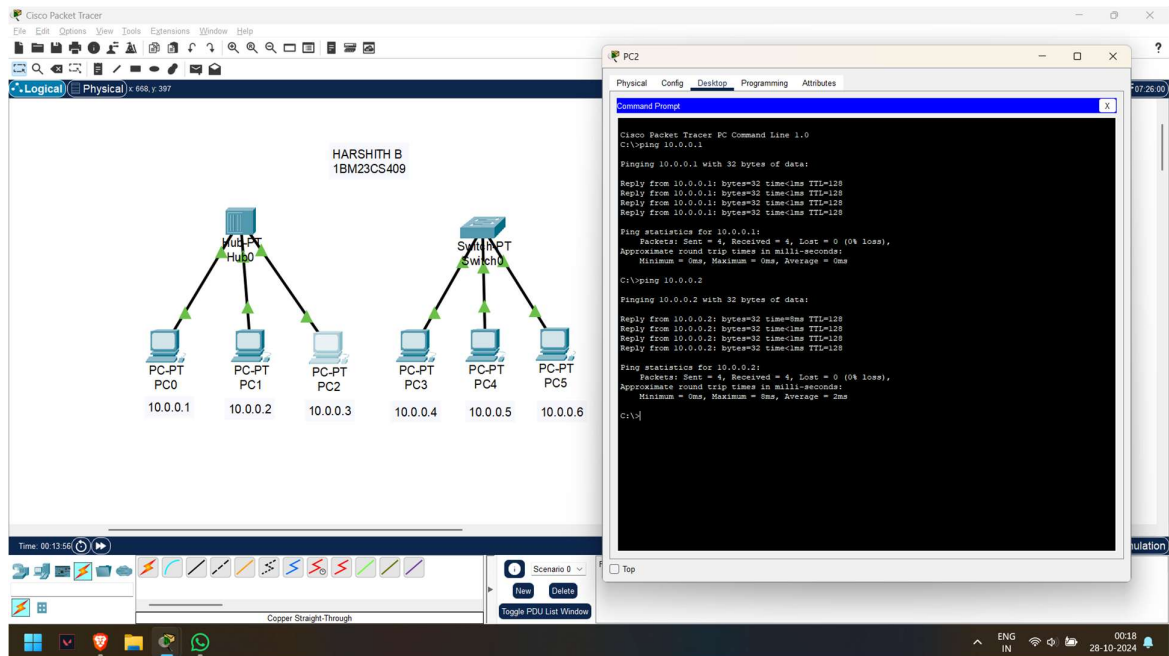
Topology: 3 PCs are connected to a hub & switch using straight-through ethernet cables.

Observation: Hub broadcasts packets to all devices which may cause unnecessary traffic. Switch forwards packets only to appropriate device by learning MAC addresses, making it more efficient in reducing traffic.

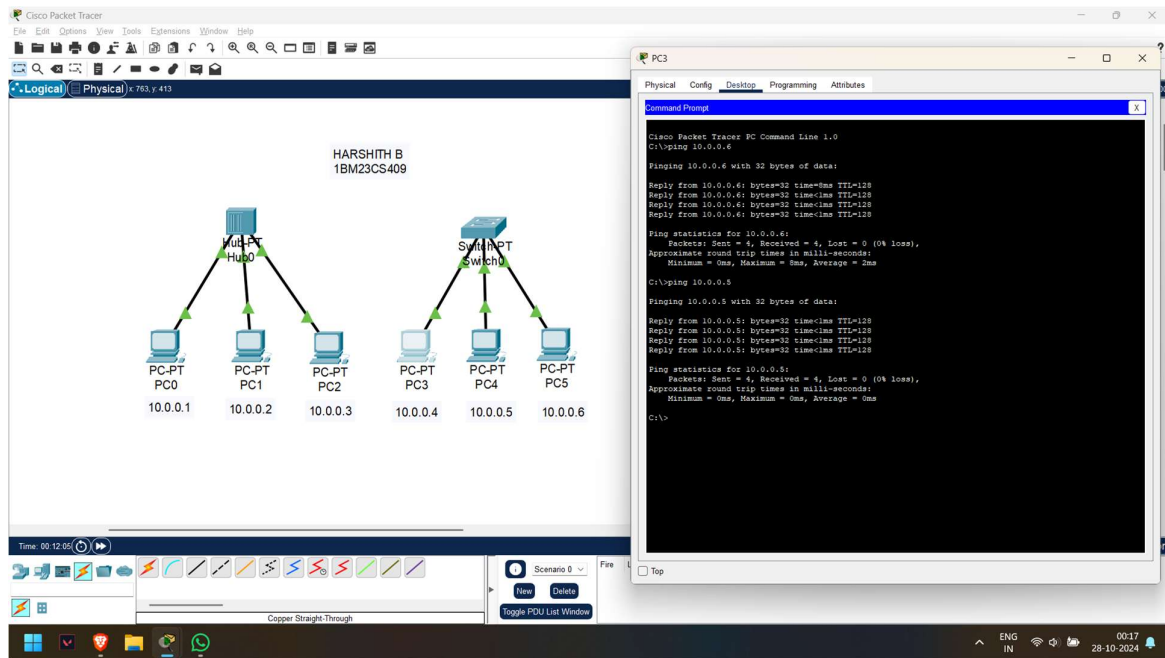
## OUTPUT SNAPSHOTS:



1. PC to Server Configuration



2. PCs to Hub configuration



### 3. PCs to Switch Configuration