7/11/22

Experiment : 1

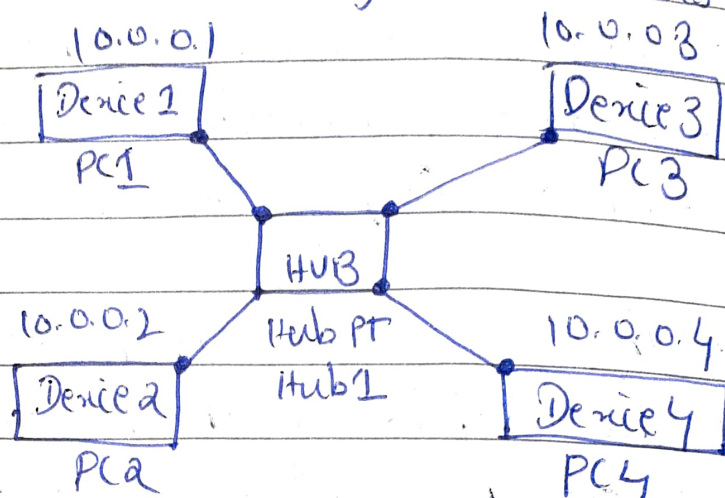**Aim :-**

Q. Create a topology consisting of two or more devices using hub.
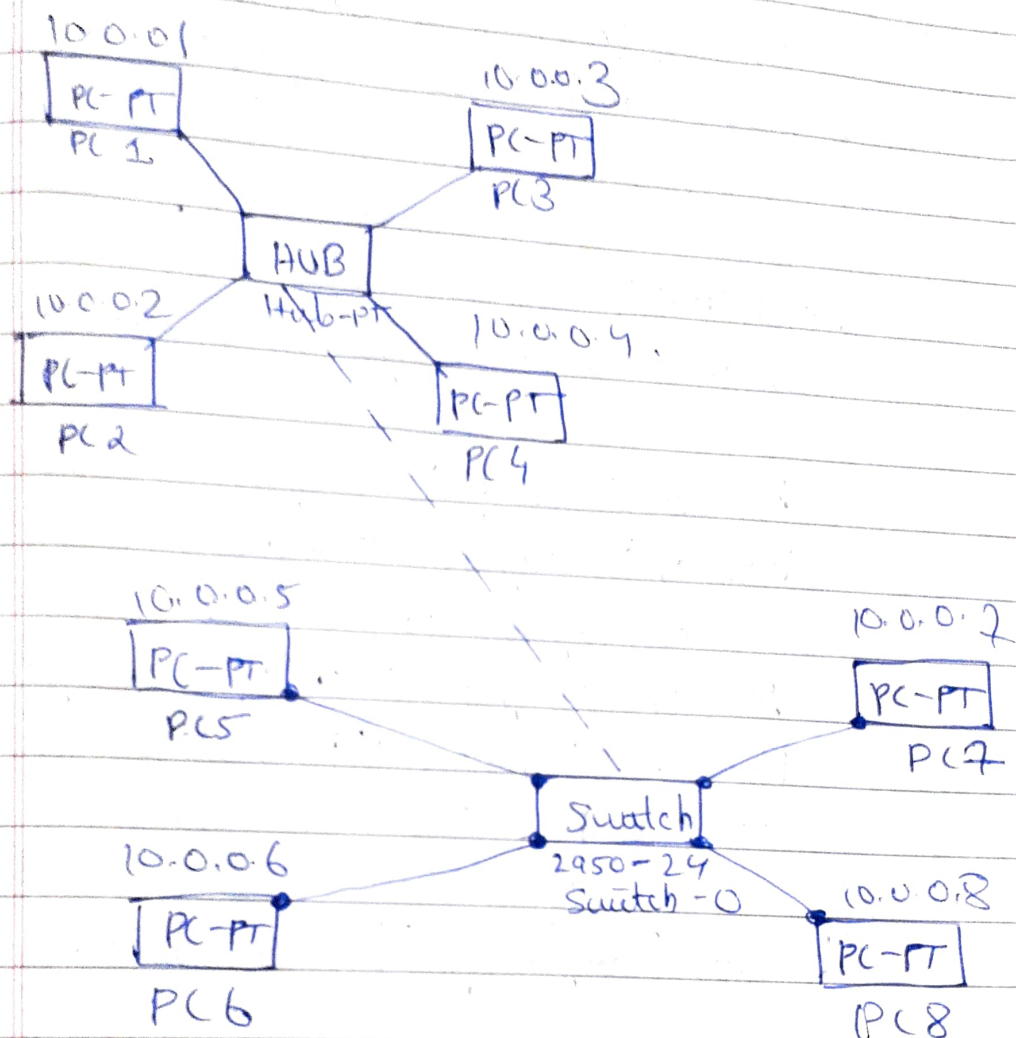
Procedure:

Ans:

Case1: Connecting All devices to 1 Hub

(0.0.0.1)
| Device 1 |
PC1

(0.0.0.3)
| Device 3 |
PC3

| HUB |

(0.0.0.2)
| Device 2 |
PC2

Hub Pr
Hub1

(0.0.0.4)
| Device 4 |
PC4

* SHUB is a dumb device i.e it is not intellegent. So whatever data is sent from a sender to hub then the hub broadcasts the data to the rest of the devices.

* Time it takes to send from sender to reciever is about 0.002 Seconds.

* A default type connection is used.

* Device and Hub is connected using a Copper straight through cable.

* It will broadcast even to devices which do not require the data.

outcome:

Case 2: This a topology where Hub's and switch is connected to 'n' devices and intern the switch and Hub is connected.

10.0.01
┌─────────┐
│ PC-PT │
└─────────┘
PC 1

10.0.0.3
┌─────────┐
│ PC-PT │
└─────────┘
PC3

┌─────────┐
│ HUB   │
└─────────┘
Hub-PT

10.0.0.2
┌─────────┐
│ PC-PT │
└─────────┘
PC 2

10.0.0.4.
┌─────────┐
│ PC-PT │
└─────────┘
PC 4

10.0.0.5
┌─────────┐
│ PC-PT │
└─────────┘
PC5

10.0.0.7
┌─────────┐
│ PC-PT │
└─────────┘
PC7

┌─────────┐
│ Switch │
└─────────┘
2950-24
Switch-0

10.0.0.6
┌─────────┐
│ PC-PT │
└─────────┘
PC 6

10.0.0.8
┌─────────┐
│ PC-PT │
└─────────┘
PC8

* Connections between the PC and the HUB or the switch is done using copper straight through.

* Connection between switch and HUB is used done using copper cross-over cable.

* Here the data packet is sent only to the intended device from the sender and not to any other device can be checked with CMD.