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BATCH-5(AI&ML)

Experiment-5&6 (HUB & Switch)

Aim : to study basic of HUB and Switch

Difference btw hub and switch:--

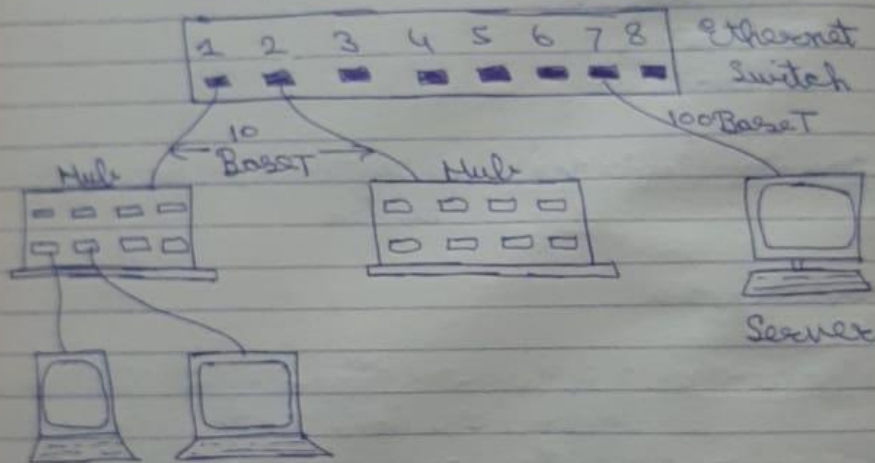
2) Hub: It is a networking device used to connect multiple ethernet devices using twisted pair or fibre optic cable. It operates at physical layer.

Types of Hub:

(i) Active Hub

(ii) Passive Hub

(iii) ~~Intelligent~~ Intelligent Hub



Advantages: It is Cheaper, Can connect diff. media types, uses network protocol ~~and~~ analyzer, etc.

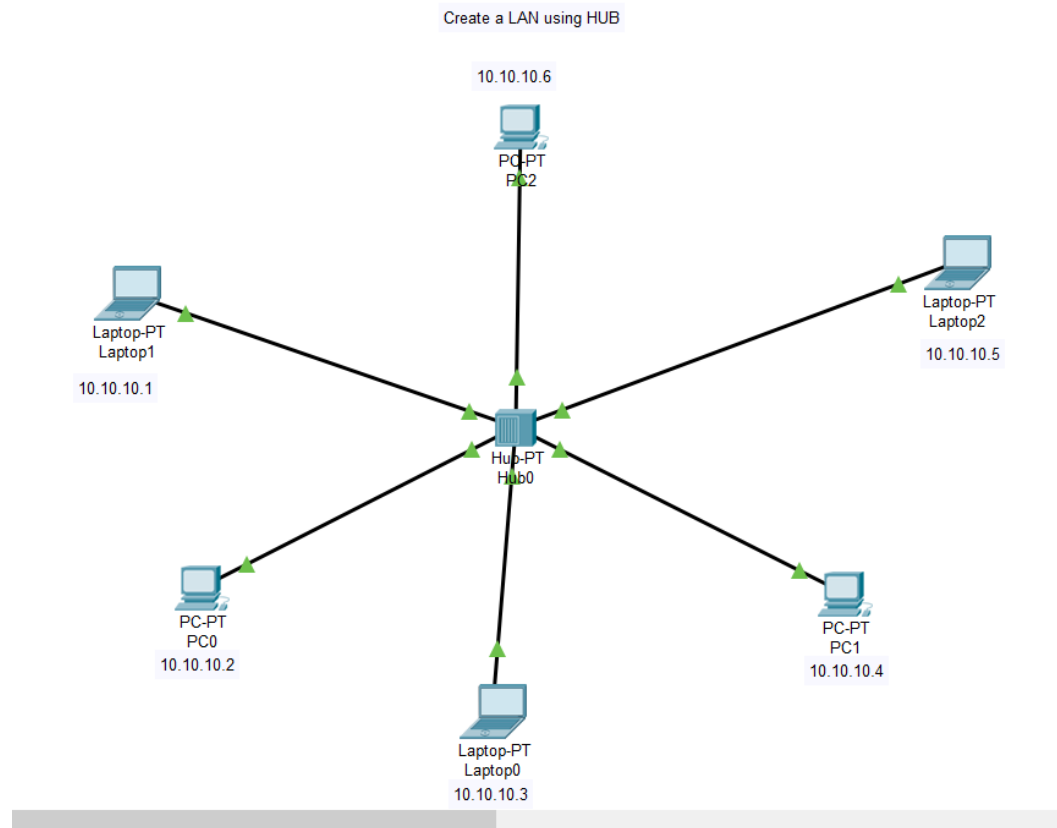
Disadvantages: It cannot filter information, does not operate in full duplex mode, it does not have mechanism to reduce the network traffic.

3) Switch: It is networking device which transfers data only to the host where it is being addressed. It checks the destination address to route the packet appropriately. It is a data link layer device.

Advantages: They increase the available bandwidth of the network, help in reducing workload on individual host PCs, etc.

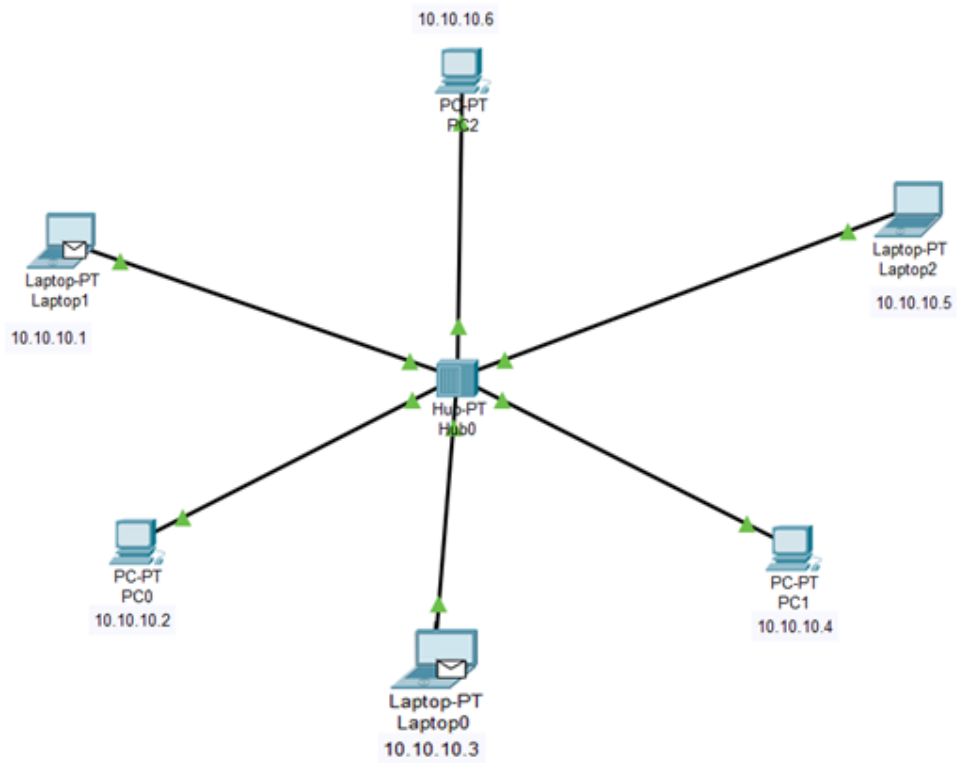
Disadvantages: Highly expensive, have many network connectivity issues, etc.
Broadcast traffic may be trouble some, etc.

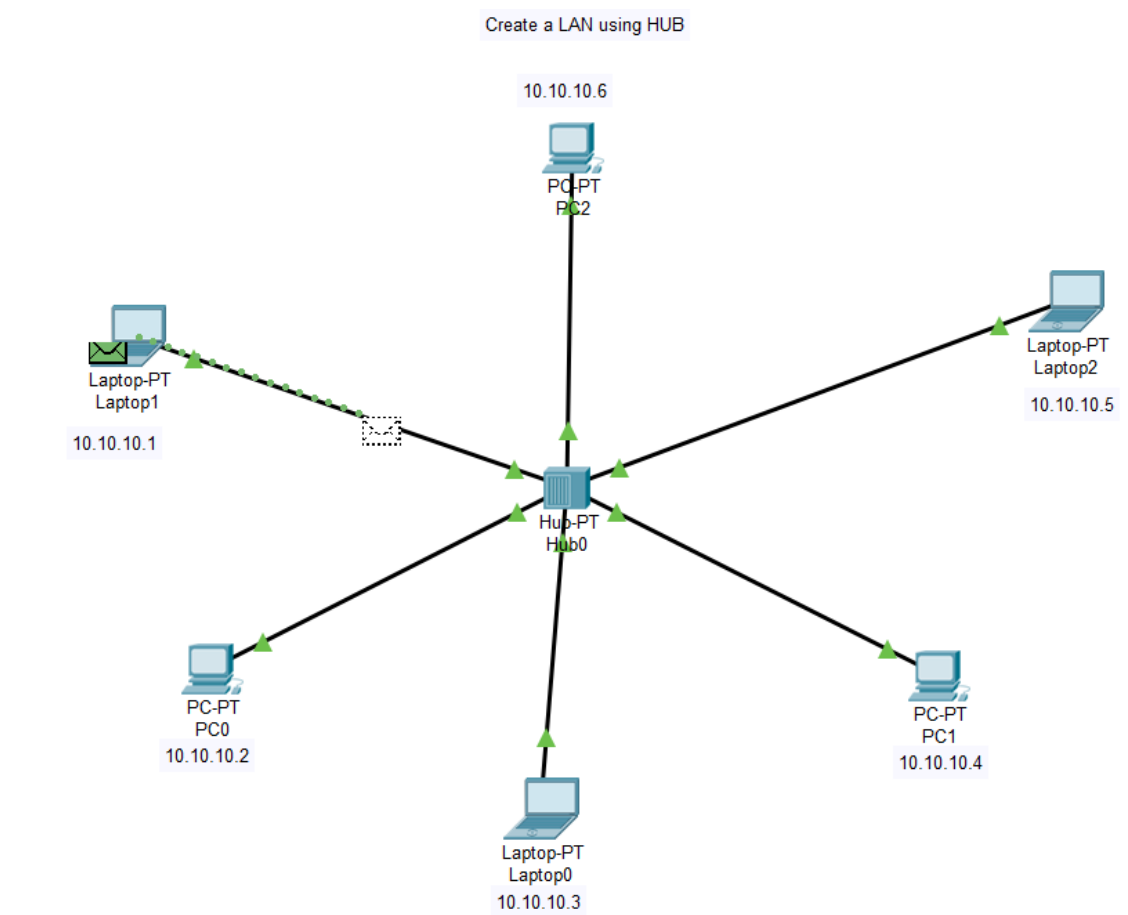
HUB :



Message is send from Laptop1 to Laptop0

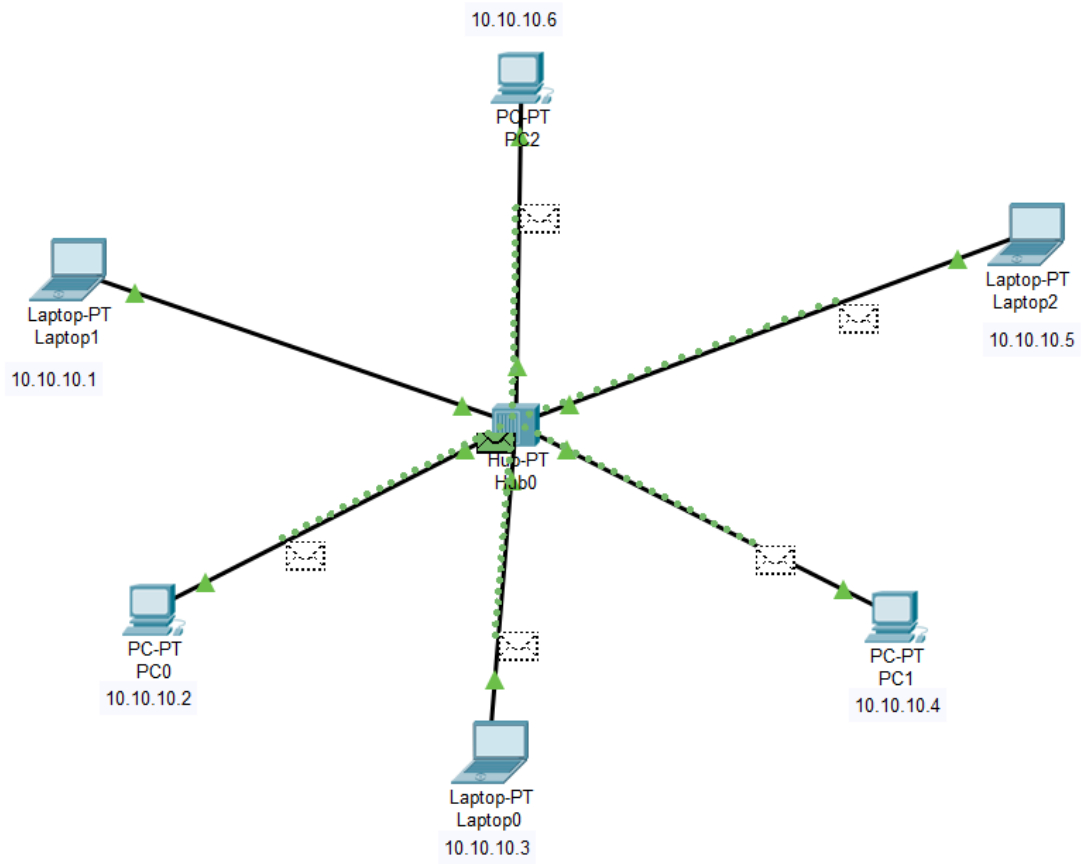
Create a LAN using HUB



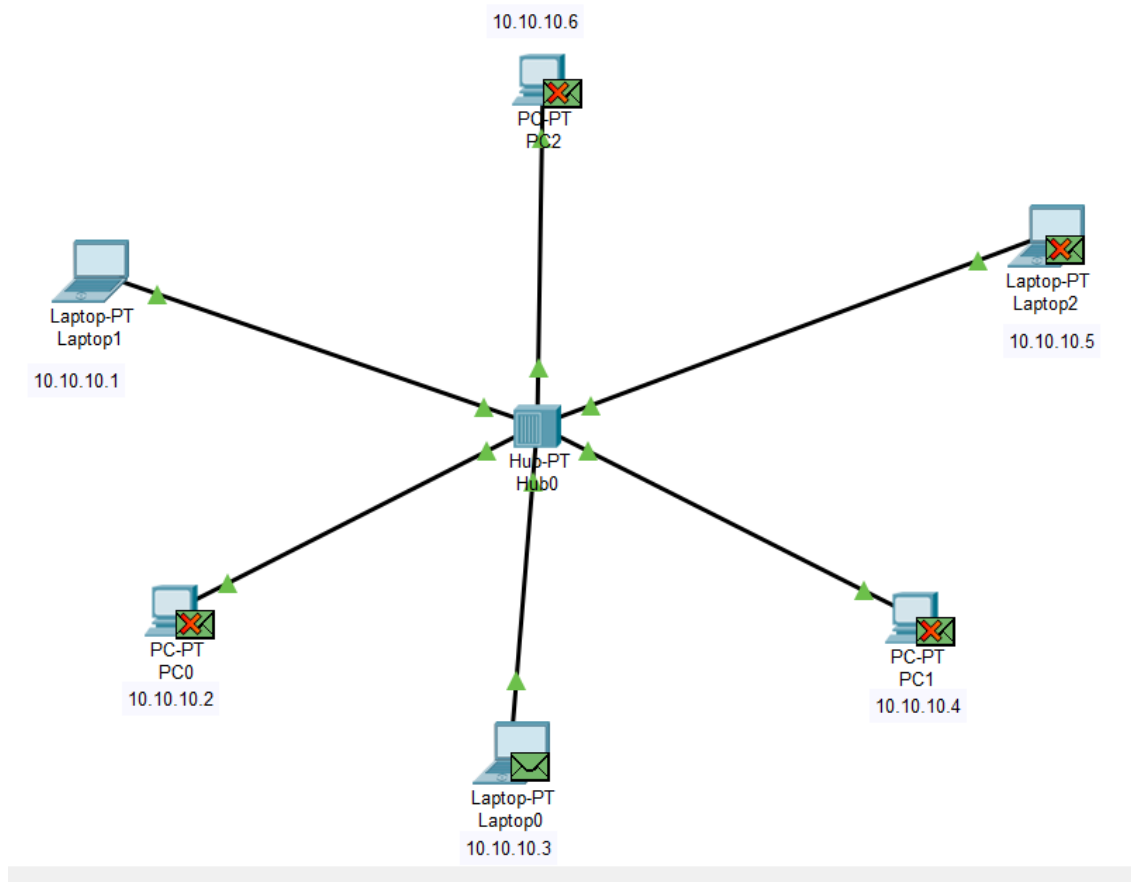


Message is broadcasted to all the devices in the LAN

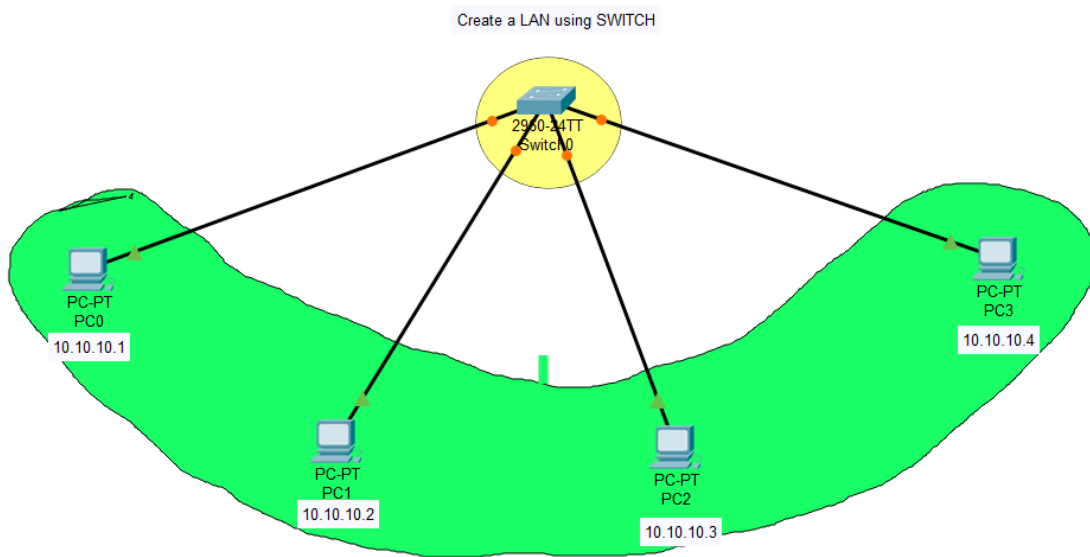
Create a LAN using HUB



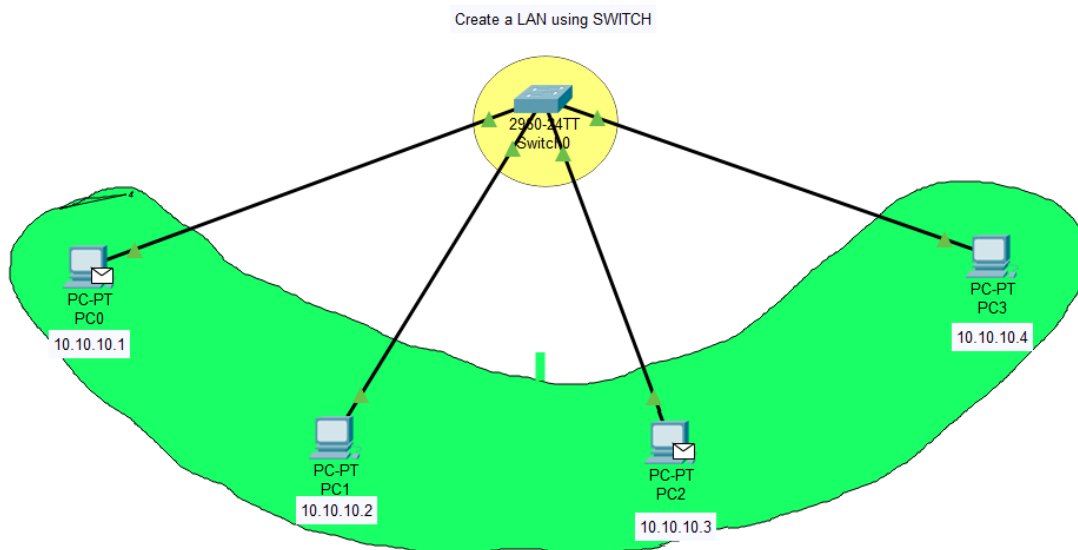
Create a LAN using HUB



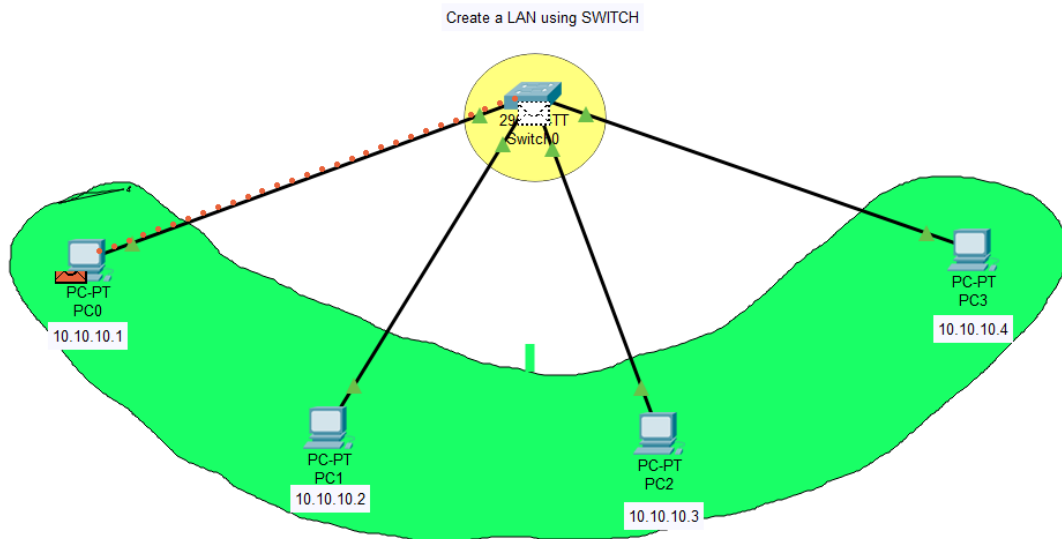
Switch :



Message is sent from PC0 to PC2



Message is sent by PC0



Message is received by PC2

