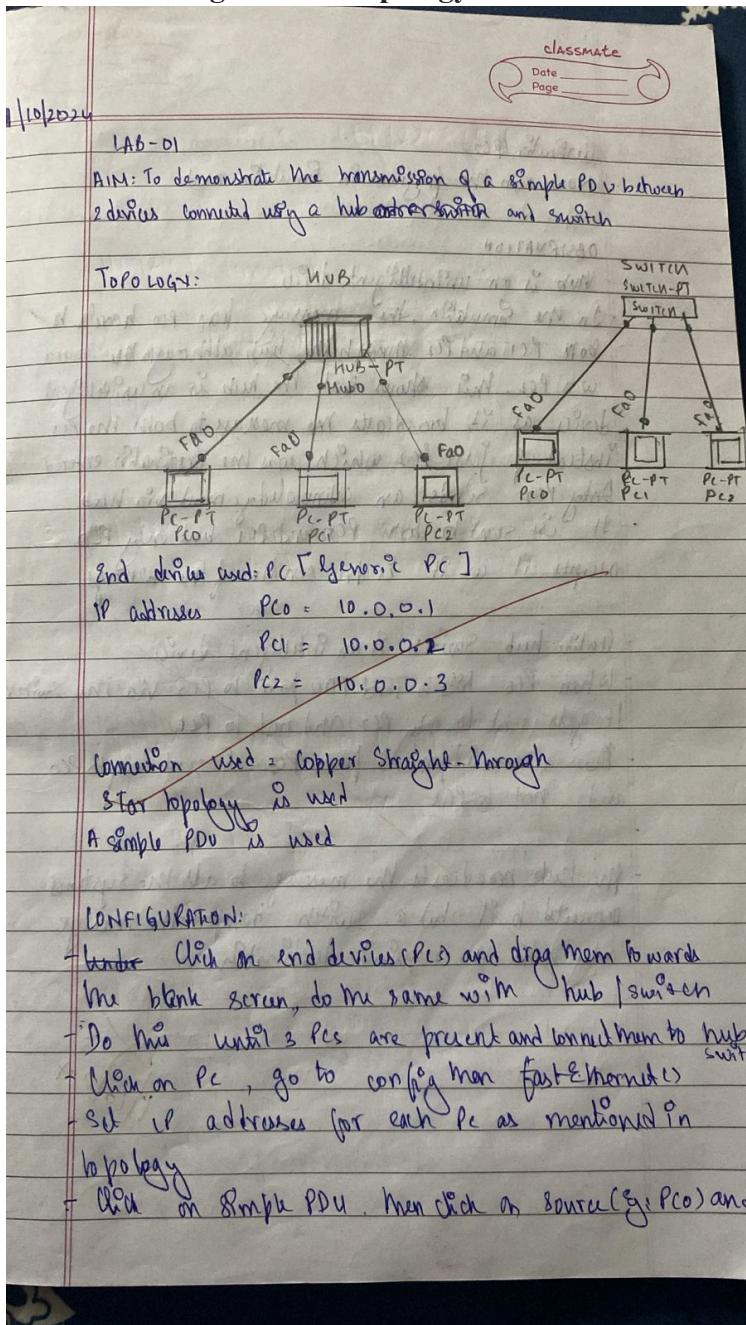
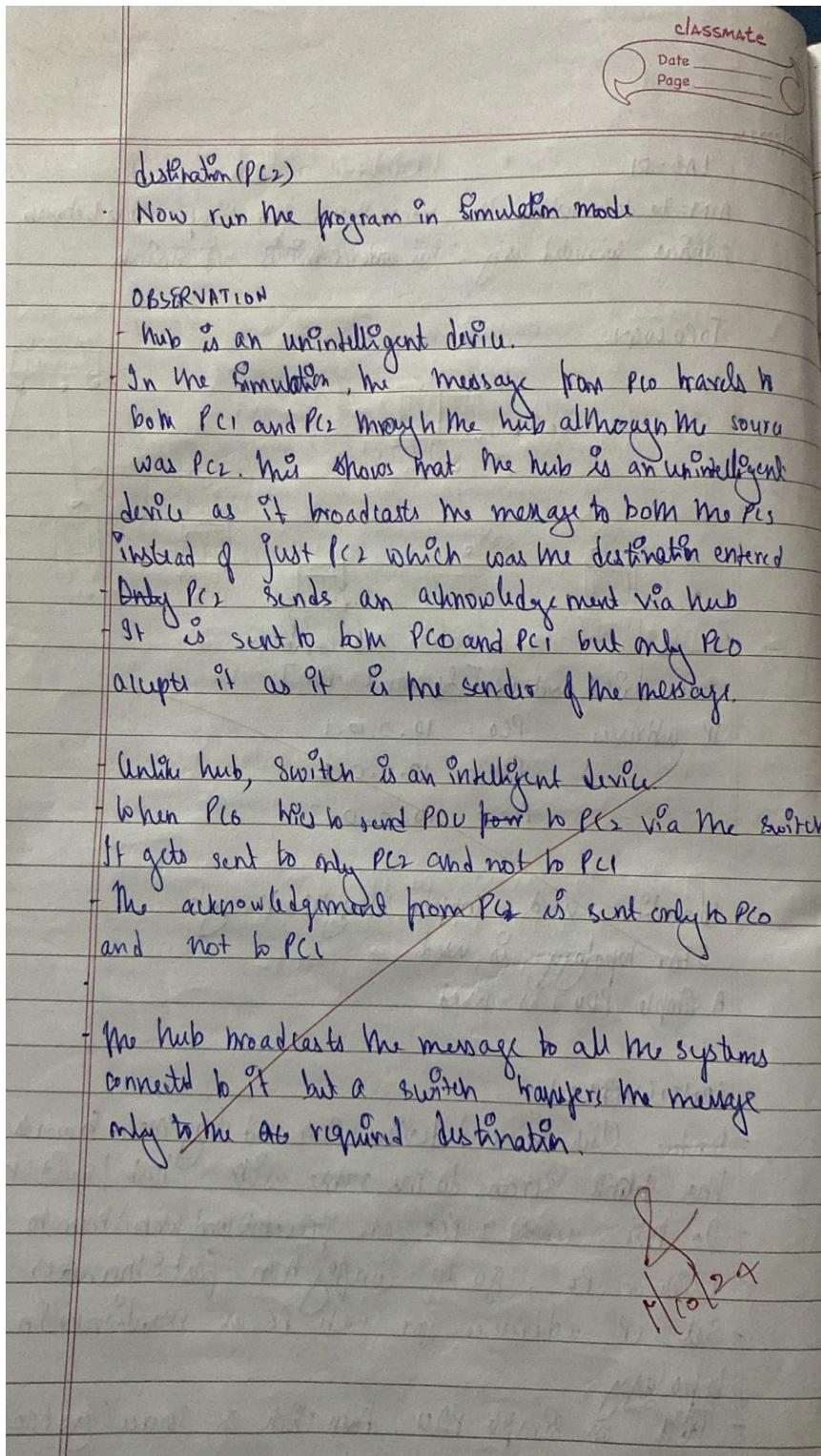


Program1

Aim: To demonstrate the transmission of a simple PDU between 2 devices connected using a hub and a switch

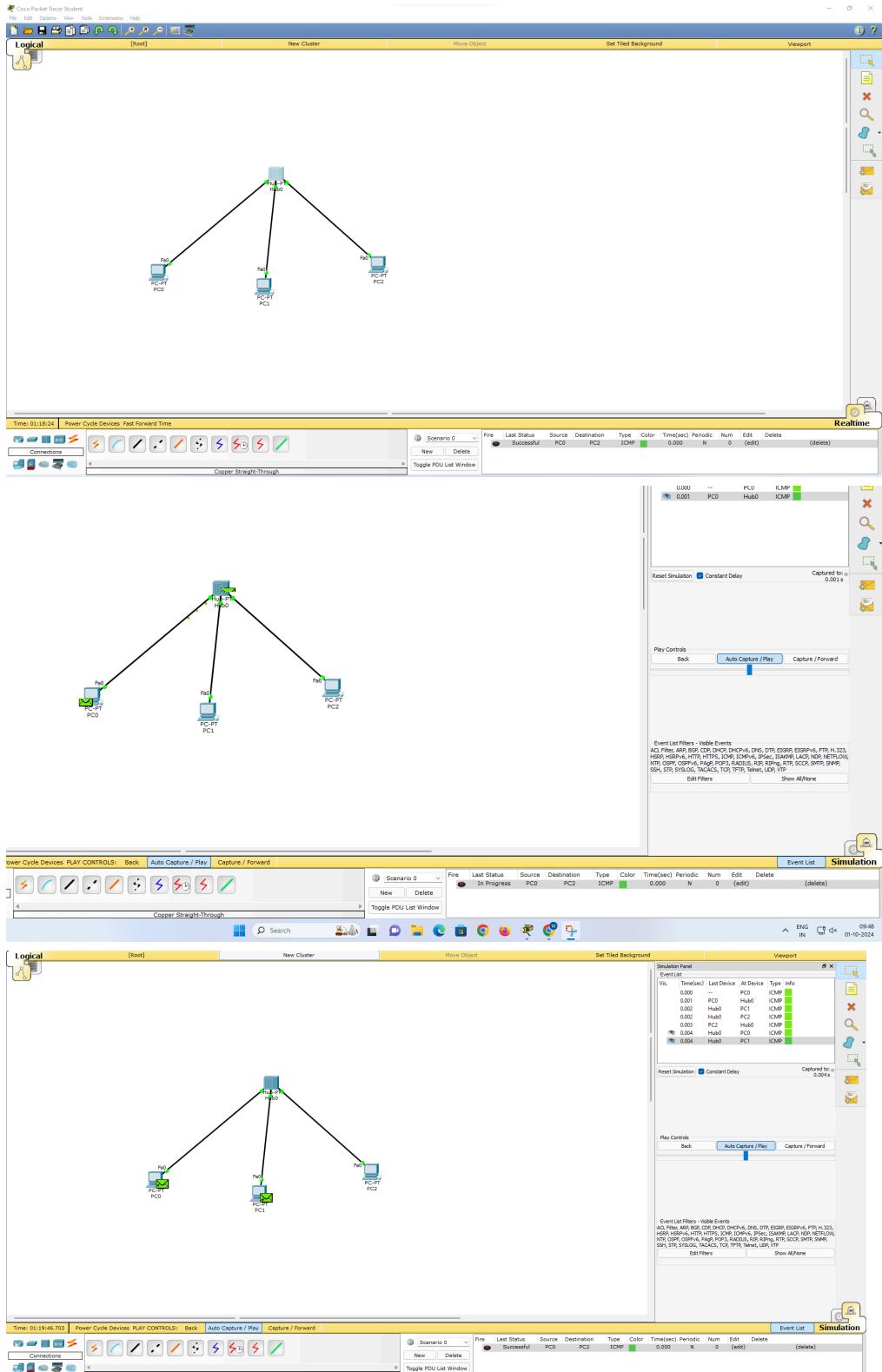
Procedure along with the topology



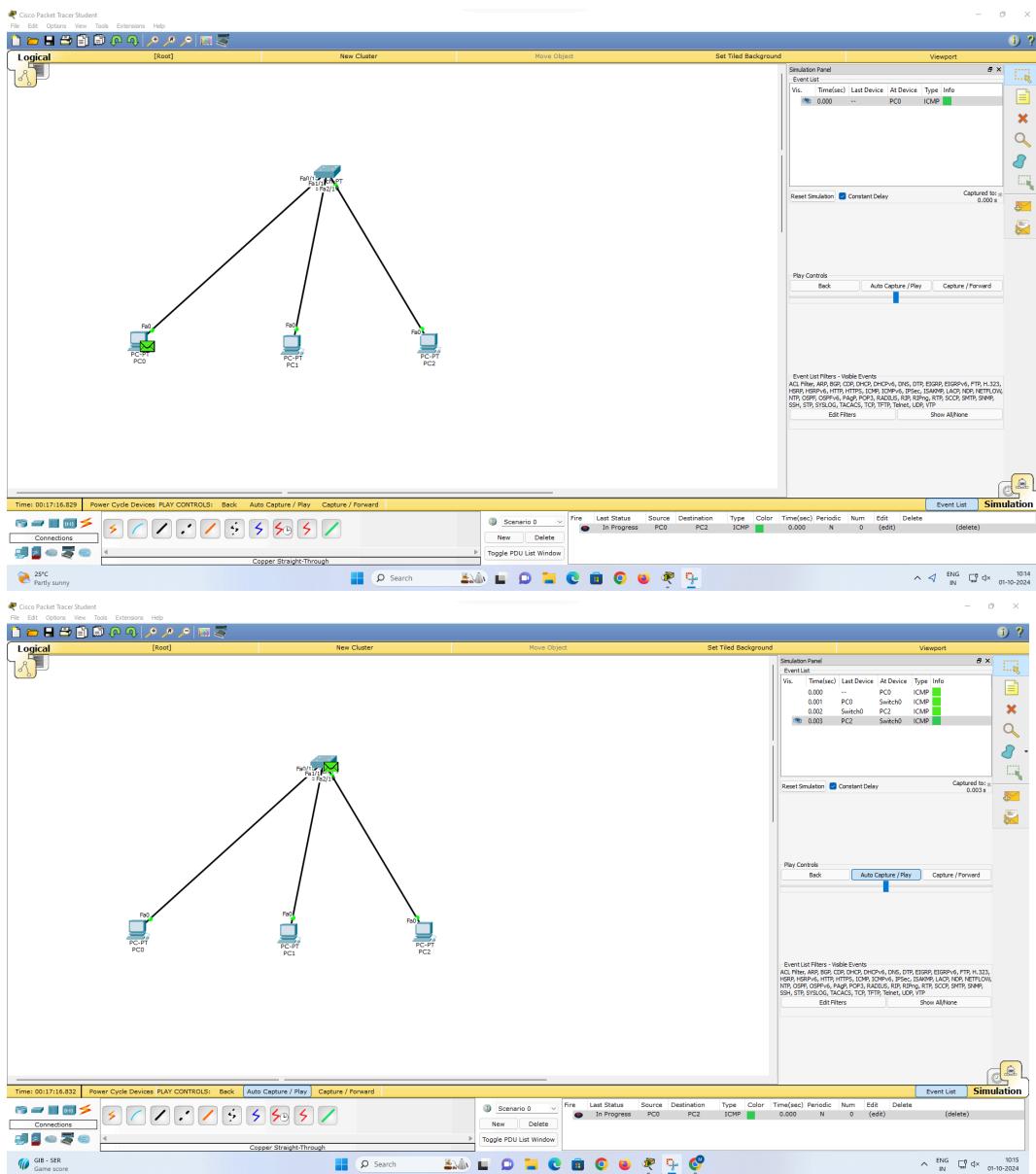


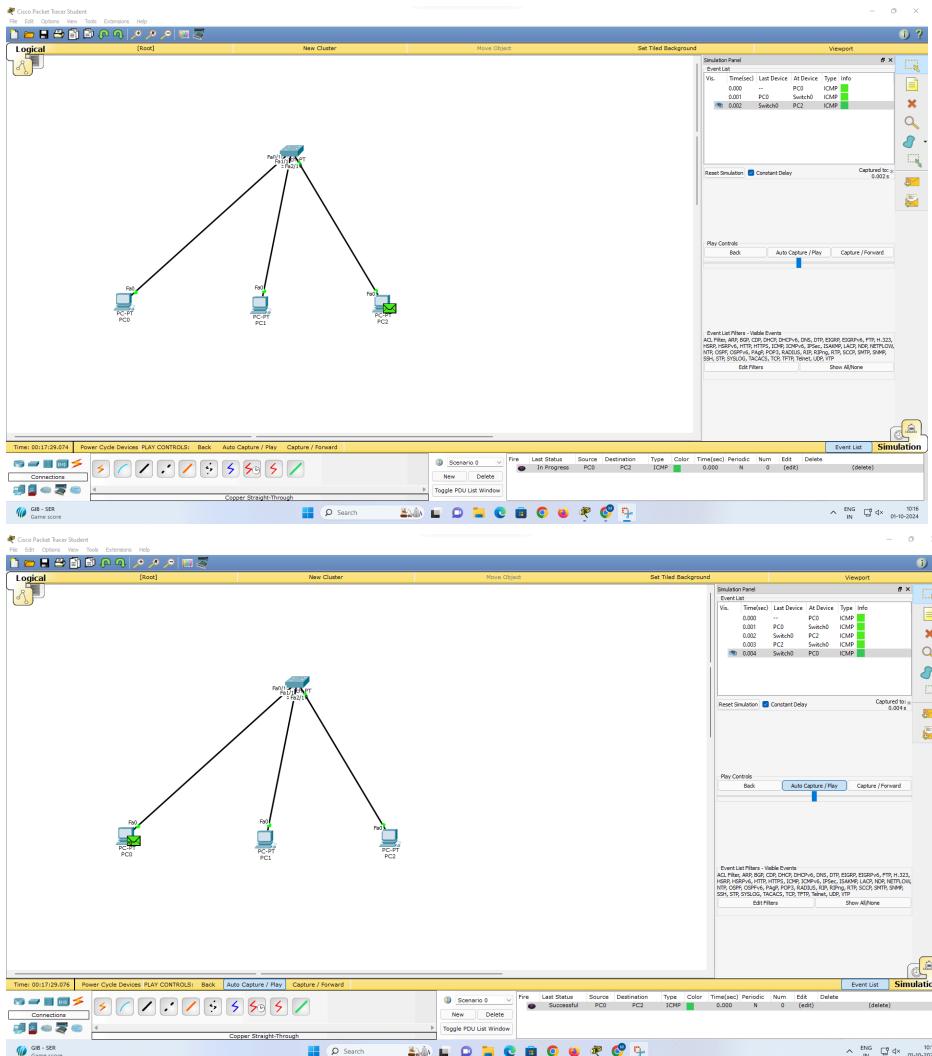
Screen shots/ output

Hub screenshots



switch screenshots





Observation

OBSERVATION

- Hub is an unintelligent device.
In the simulation, the message from PCo travels to both PC1 and PC2 through the hub although the source was PC2. This shows that the hub is an unintelligent device as it broadcasts the message to both the PCs instead of just PC2 which was the destination entered. Only PC2 sends an acknowledgement back via hub. It is sent to both PCo and PC1 but only PCo accepts it as it is the sender of the message.

Unlike hub, Switch is an intelligent device.
When PCo has to send PDU from its port to PCs via the switch. It gets sent to only PC2 and not to PC1.
The acknowledgement from PC2 is sent only to PCo and not to PC1.

- The hub broadcasts the message to all the systems connected to it but a switch transfers the message only to the ~~the~~ required destination.

X
PCo
PC1
PC2