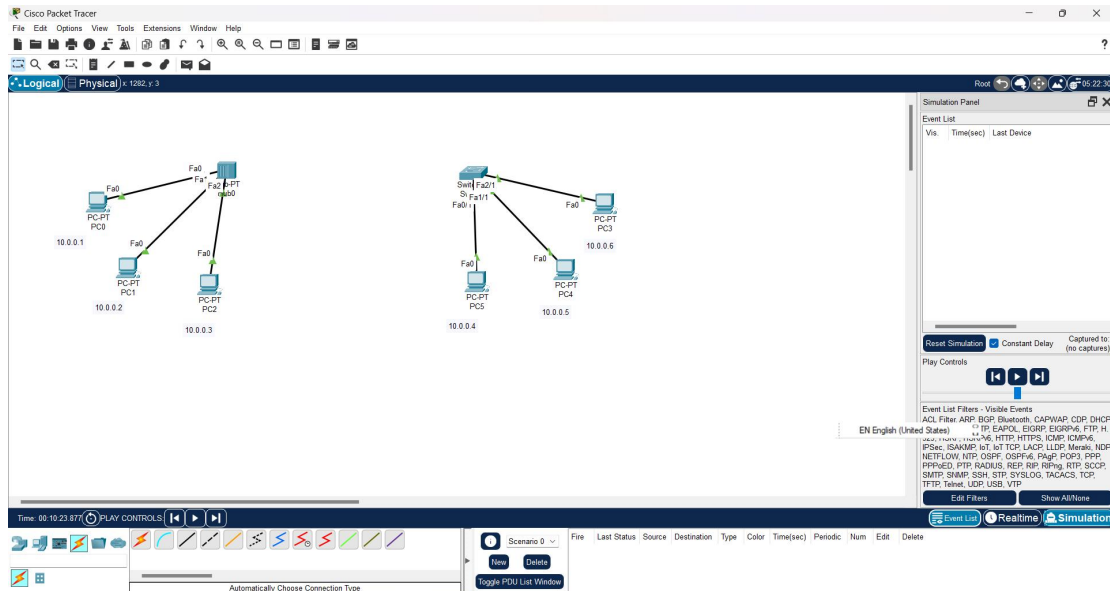# Aim-1

1. Create a topology and simulate sending a simple PDU from source to destination using hub and switch as connecting devices and demonstrate ping message.

Topology:

Procedure for Hub:

Simulation:
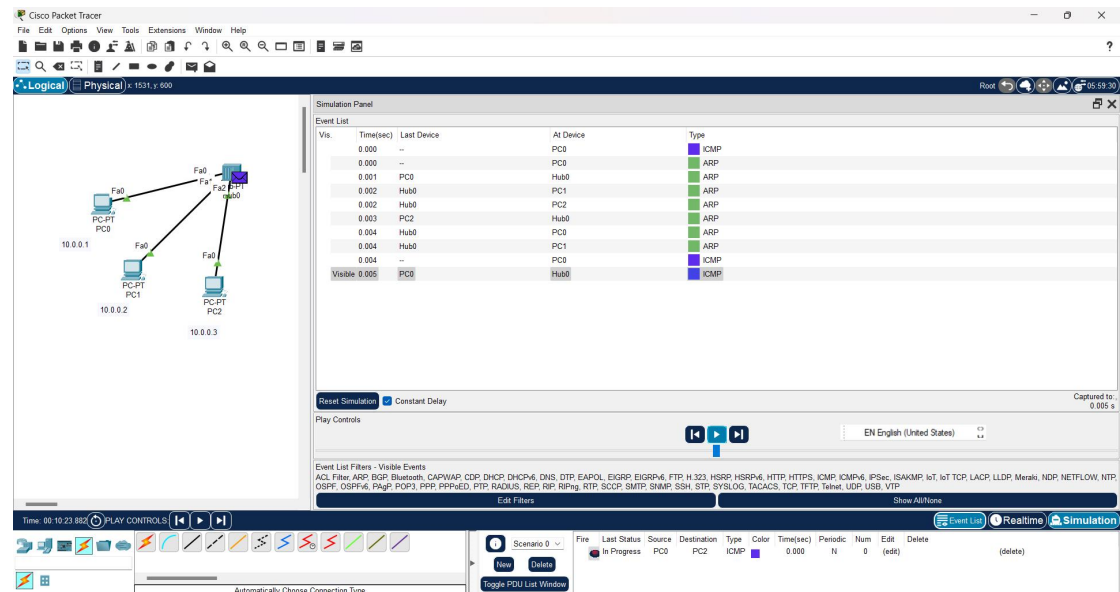

Sending PDU from source device (pc0) to destination device (pc2).

Ping Response:
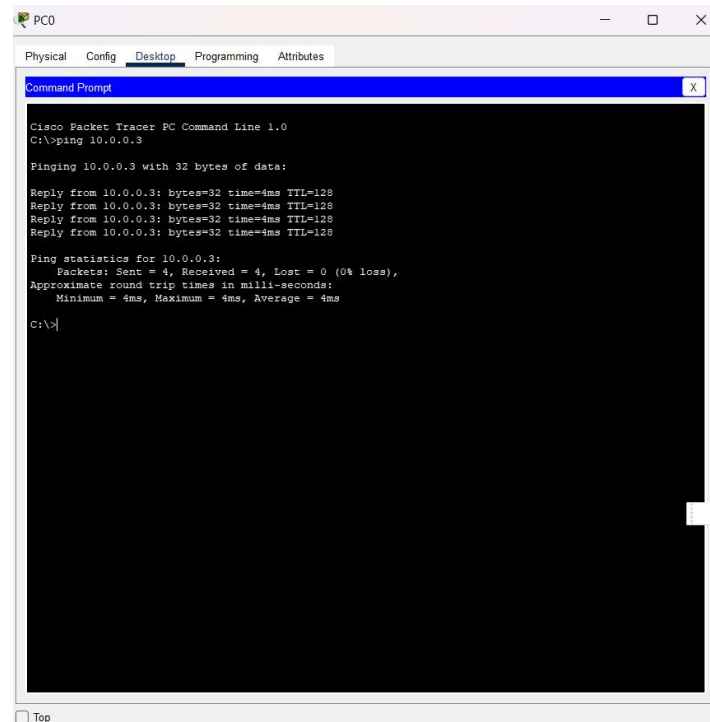
Ping response from pc0 to pc2.

Procedure for Switch:

Output

=> Hub broadcasts the PDU among the pc's.

=> Pinging (10.0.0.11).

Topology: PC's — Switch

Switch-PT

PC3   PC4   PC5

Procedure

=> Place a Switch (Generic, Switch-PT)

=> Place three pc's PC3, PC4, PC5.

=> Configure the pc's it ip addresses.

PC3 (10.0.0.4), PC4 (10.0.0.5), PC5 (10.0.0.6)

=> then send the PDU to destination PC (PC5) from Source PC (PC3)
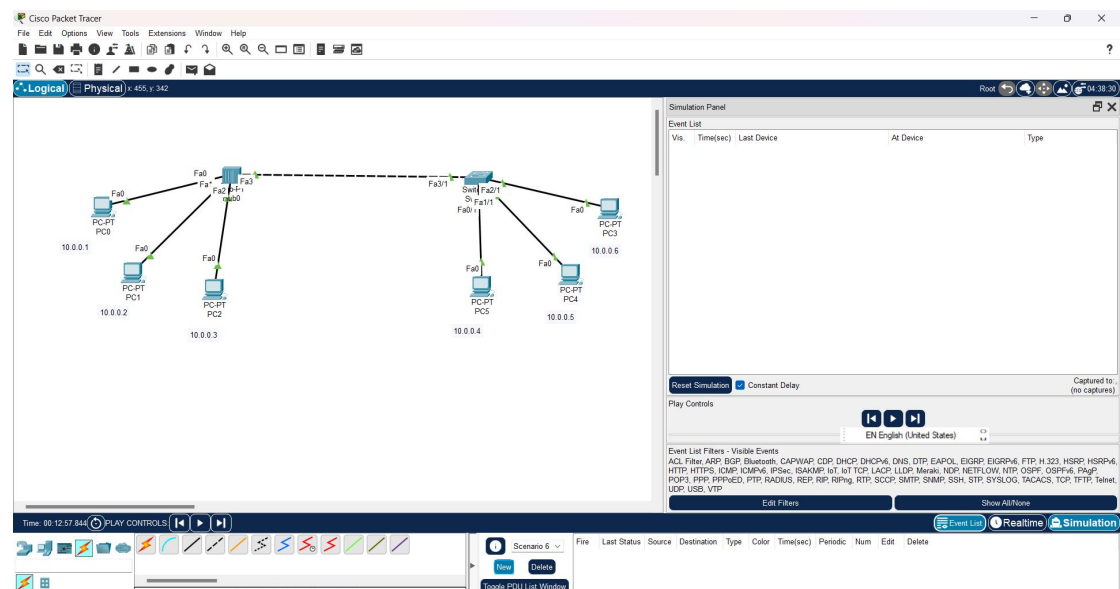
Output

Simulation:

Sending PDU from source device (pc5) to destination device (pc3).

Ping Response:
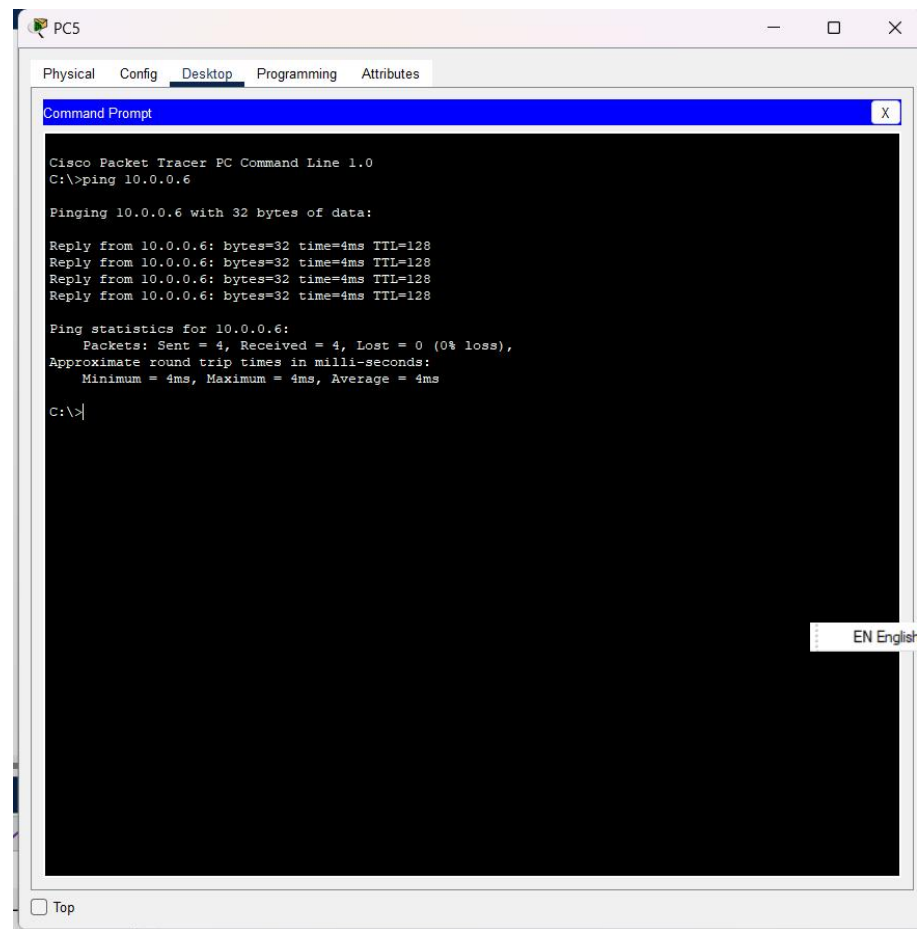
Ping response from pc5 to pc3.

Topology (Hub-Switch):

Procedure (Hub-Switch):

Topology : Hub - Switch.

Procedure

=> place a Hub

-> Connect 3 pc's to hub

-> place a Switch

=> Connect 3 pc's to switch.

=> Configure IP addresses of all the PC's

-> PC0 - 10.0.0.1

=> PC1 - 10.0.0.2

-> PC2 - 10.0.0.3

-> PC3 - 10.0.0.4

=> PC4 - 10.0.0.5
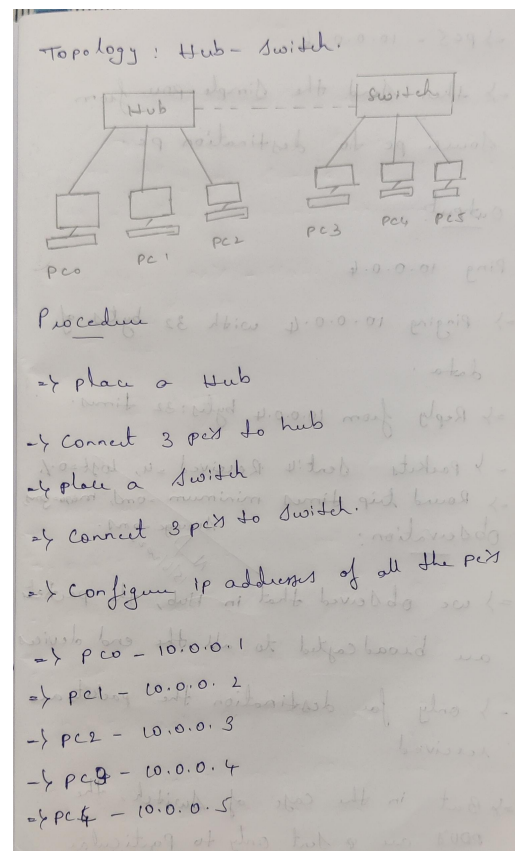
-> PC5 - 10.0.0.6.

-> then Send the Simple PDU from Source pc to destination pc.

Output:

Ping 10.0.0.4

-> Pinging 10.0.0.4 with 32 bytes of data.

=> Reply from 10.0.0.4 bytes : 32 times.

-> Packets Sent : 4 Received = 4, lost = 0%.

-> Round trip times minimum -0ms, maximum, Average - 0ms.

observation :

=> we observed that in Hub, the packets are broadcasted to all the end devices.

-> only for destination the packets are received

=> But in the case of Switch, the PDU's are sent only to Particular destination.

Simulation:

Sending PDU from source device (pc0) to destination device (pc4).

Ping Response:

Ping response from pc0 to pc5.