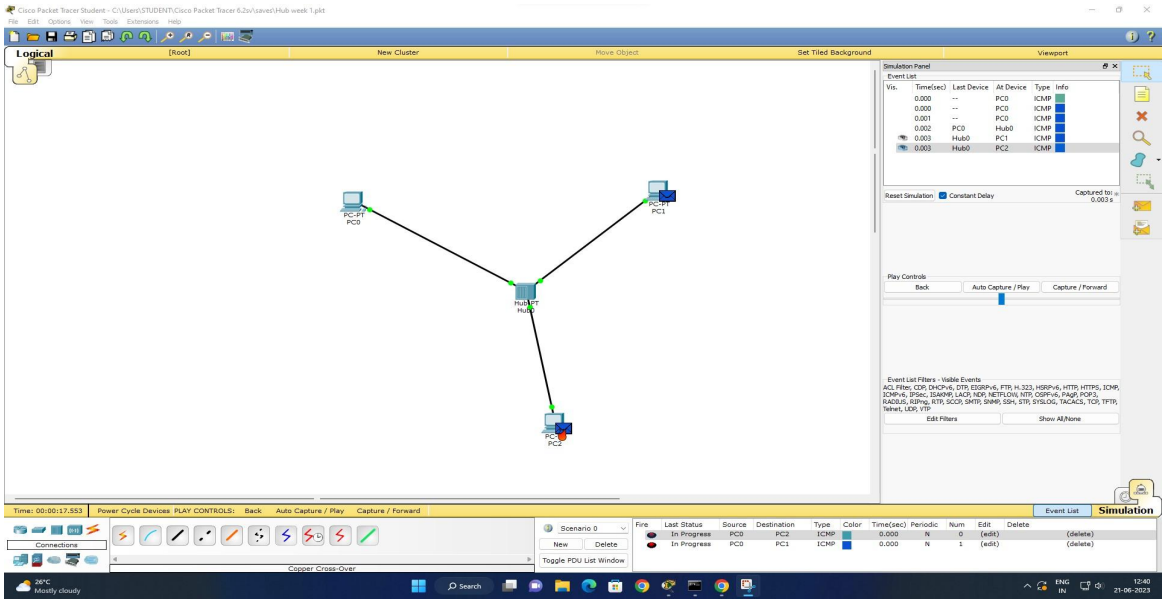
Week 2

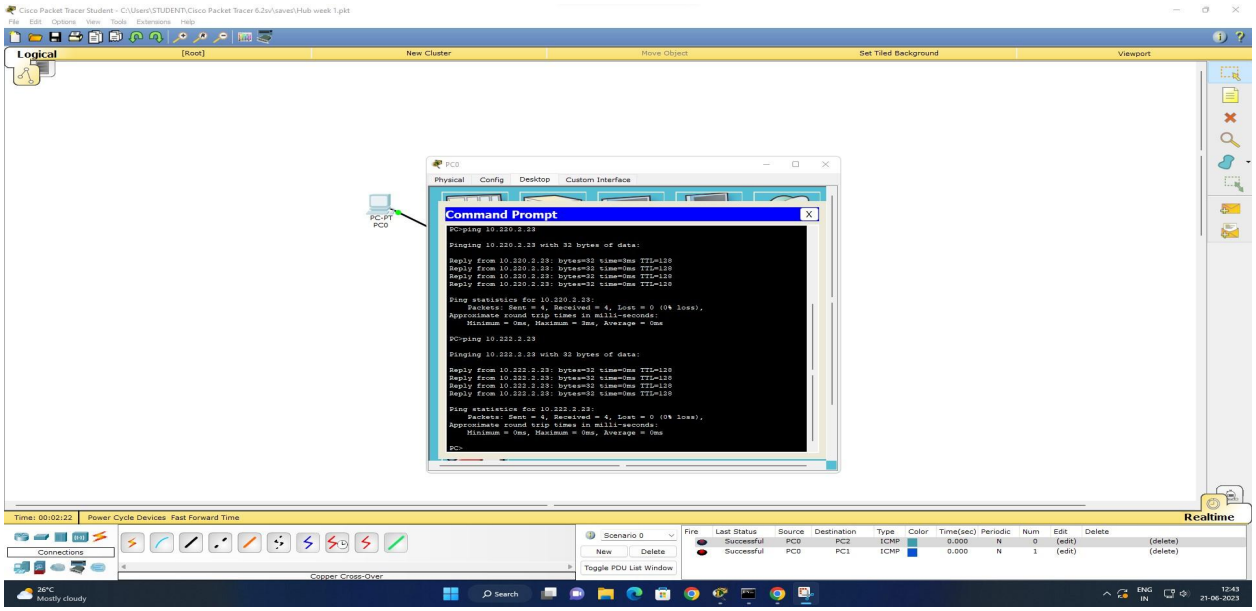
Hub Network :- In this network, we used hub to connect three end devices.

Outcome :- In this experiment we saw that the devices were connected at the physical layer. We tried sending message from from end device to another end device. Since the hub is dumb-device, it broadcasts the message to all the devices. The receiver device receives the message while the other device rejects it. Hub has 2 layers.

Simulation :-



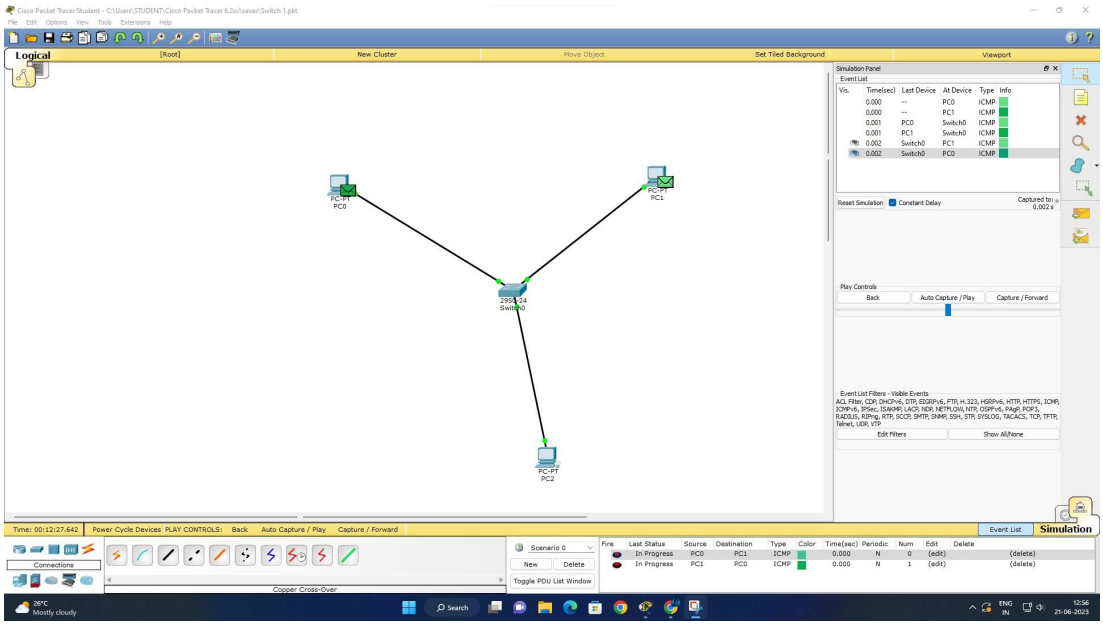
Pinging:-



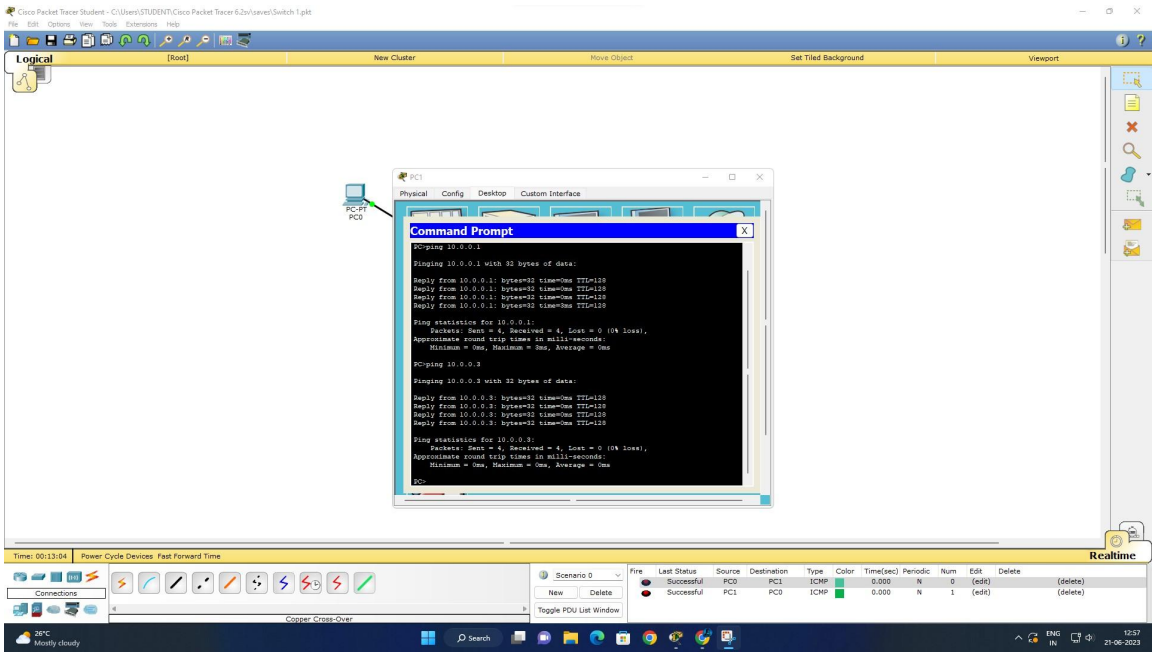
Switch Network :- In this network, we connected three end devices using a Switch.

Outcome:- In this experiment, we saw that the switch has a 30 sec delay. Then it is ready to transmit the message. We tried transmitting the message from one device to another. At first, the switch broadcasts to all the devices as it learns about the devices in the network. Then it only sends the message to the specified device. Switch has 3 layers.

Simulation:-



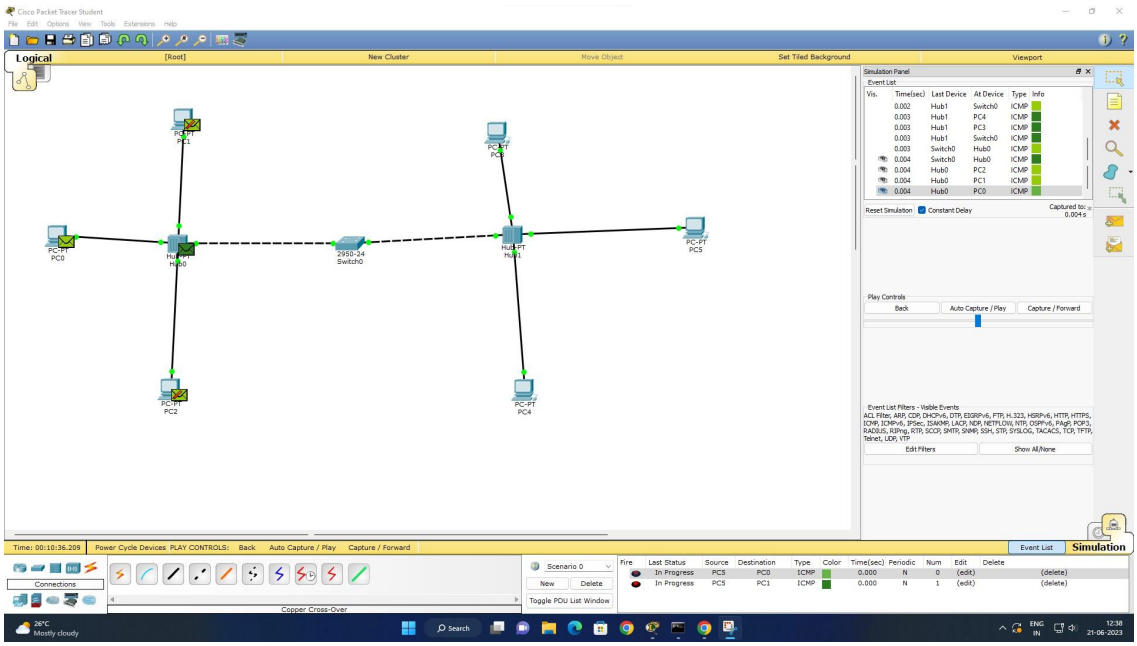
Pinging:-



Hybrid Network:- In this topology, we created two separate hub networks where we have connected three end devices. Then we have used a switch to connect the two respective hubs using a crossover cable.

Outcome:- In this experiment, we tried sending a message from one end device in hub network 2 to another end device in hub network 1. The hub network 2 accepts the the message and transfers to all the connected devices. Only the switch accepts the message while the other two devices reject it. The switch then broadcasts it into the hub network 1. Here the switch acts as the hub. Then hub network 1 accepts the message and transmits it to all the devices connected. Only the intended device accepts it while the other two devices reject it.

Simulation:-



Pinging:-