Assignment 6
Computer Networks

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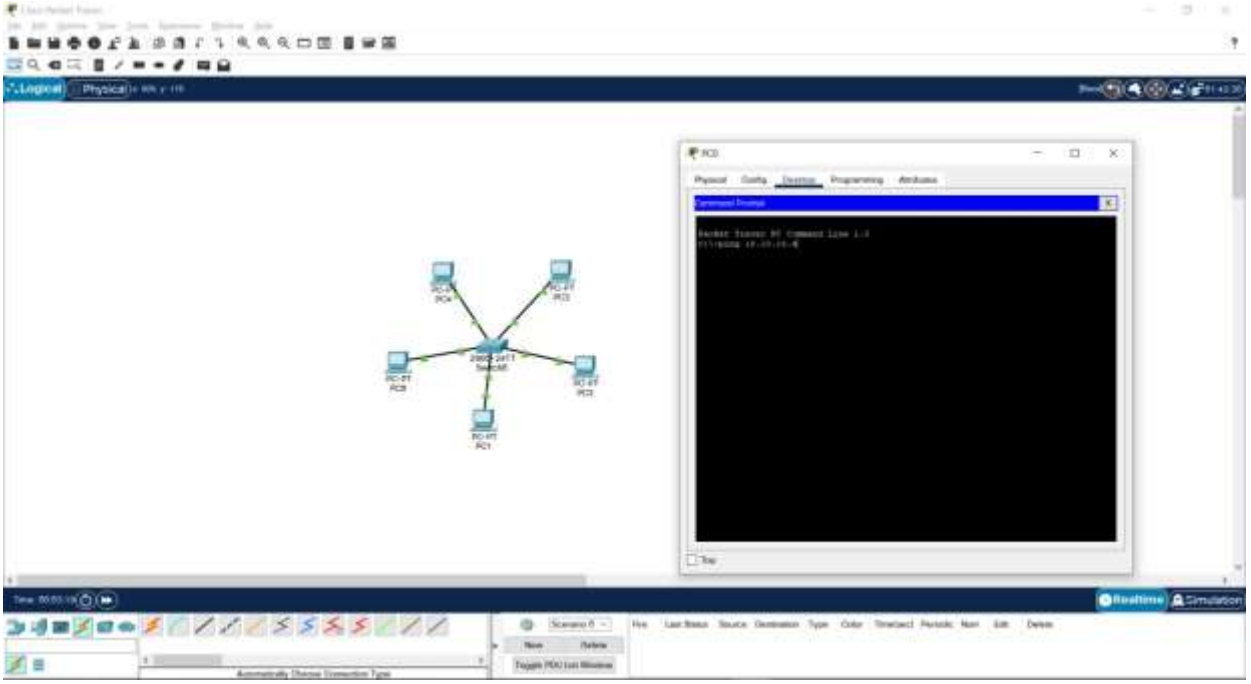
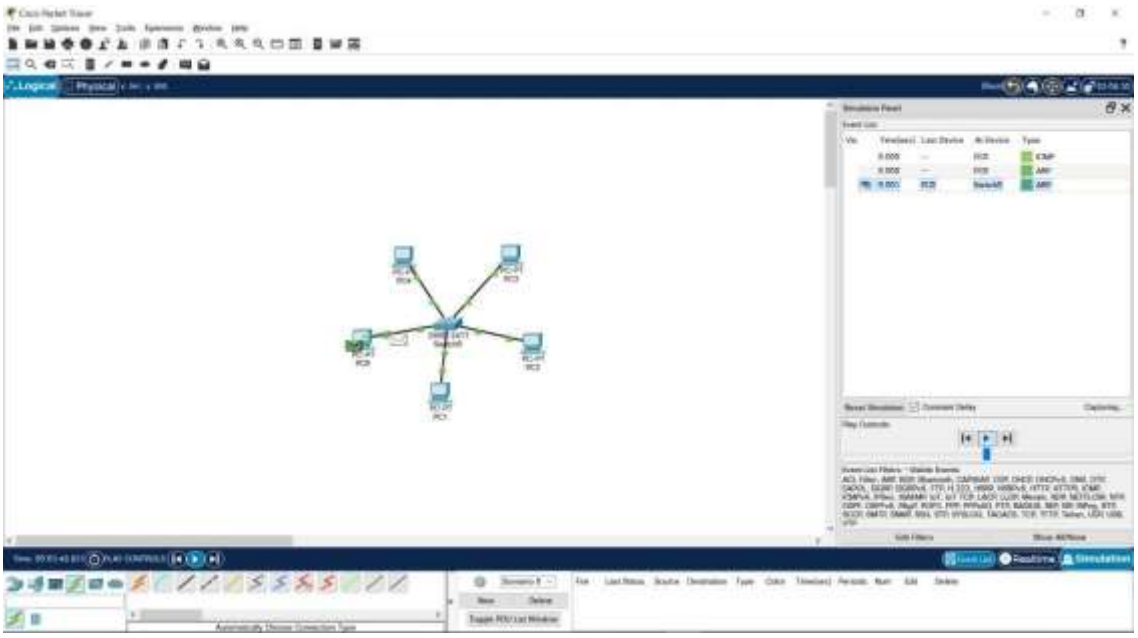
Star Topology

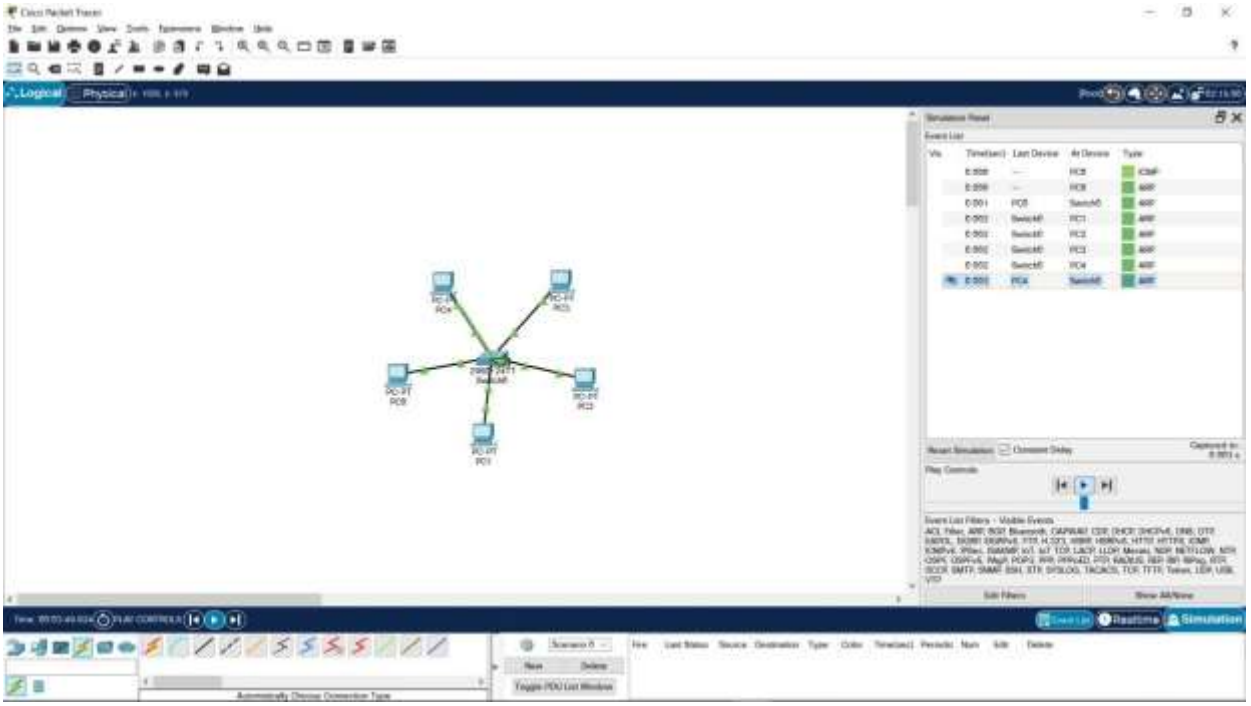
A star topology is a topology mainly for a Local Area Network (LAN) in which all nodes are individually connected to a central connection point, like a hub or a switch.



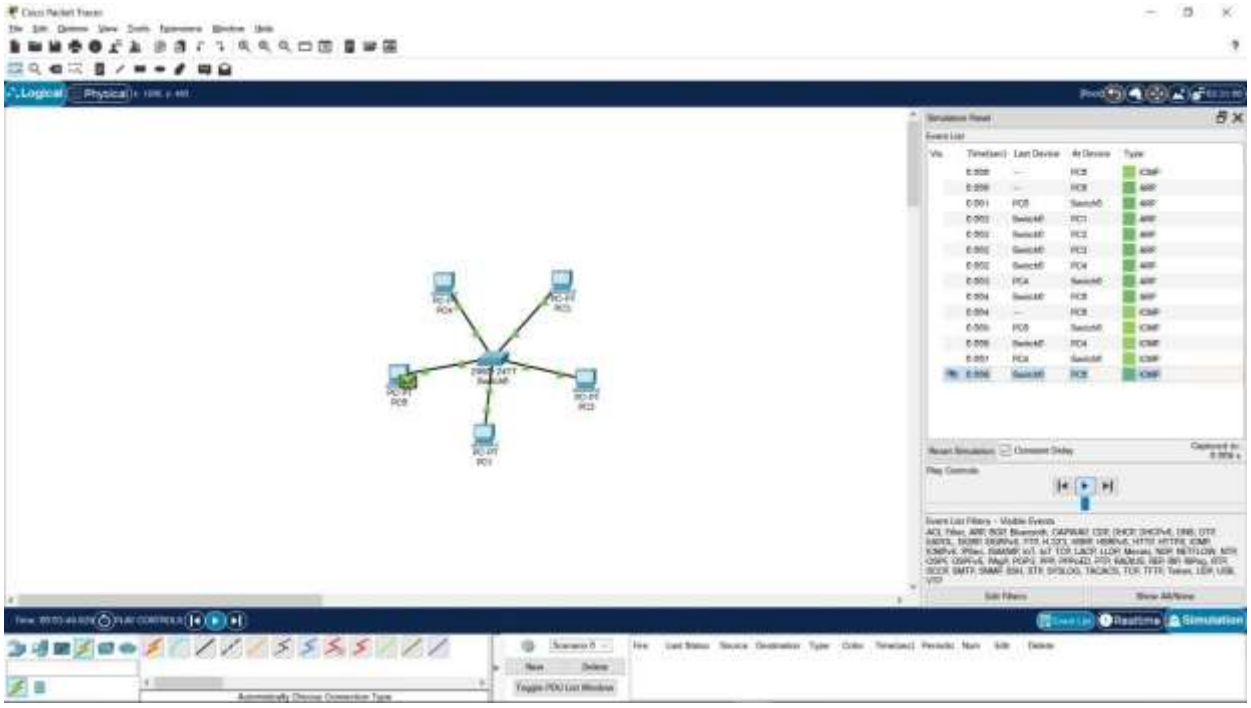
Let's try ping command from PC0 to PC4.



Only PC4 accepts.

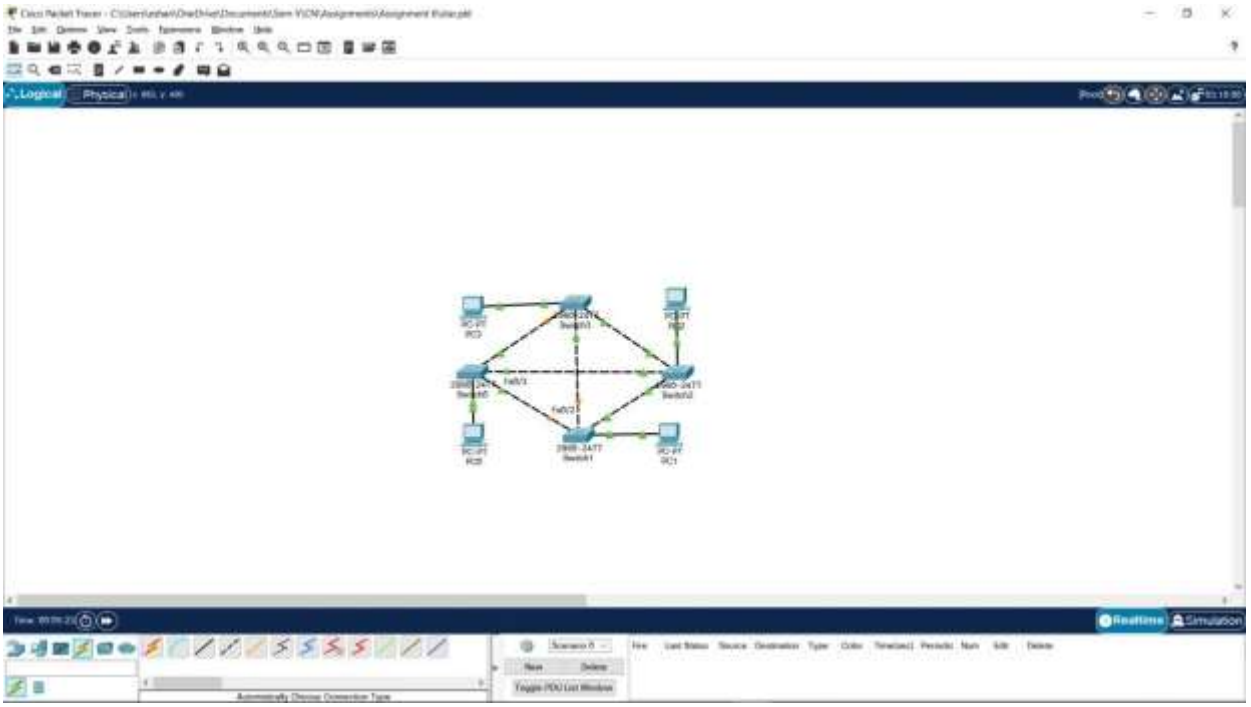


PC0 receives the reply.

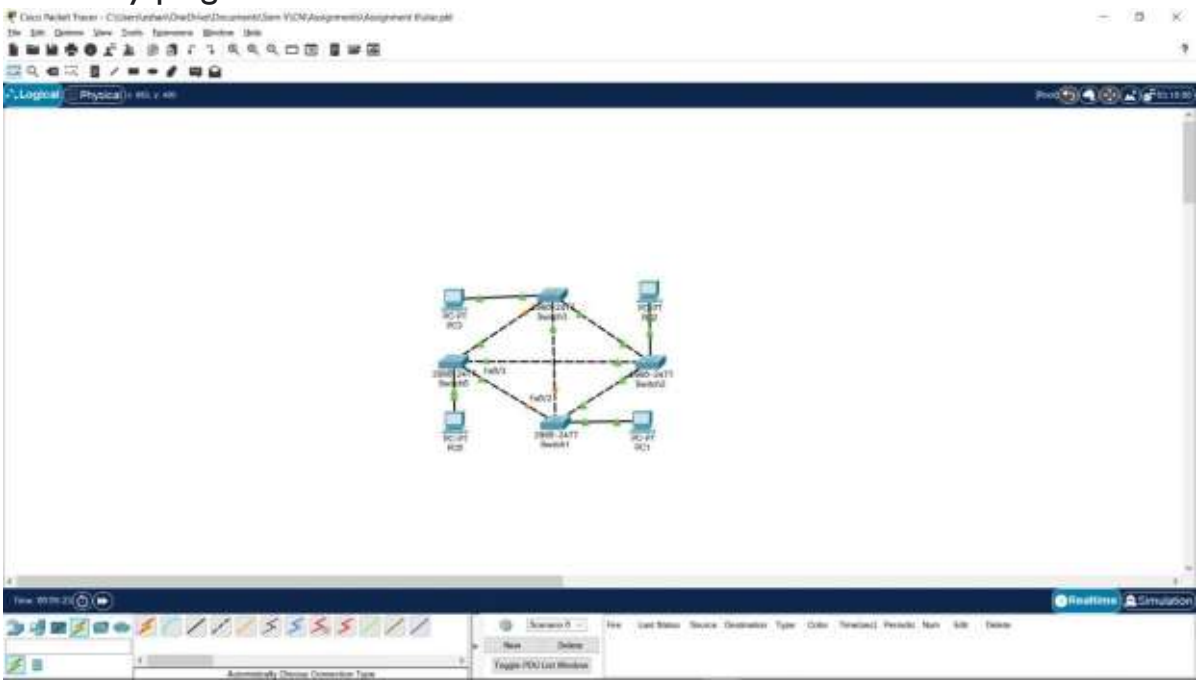


Mesh Topology

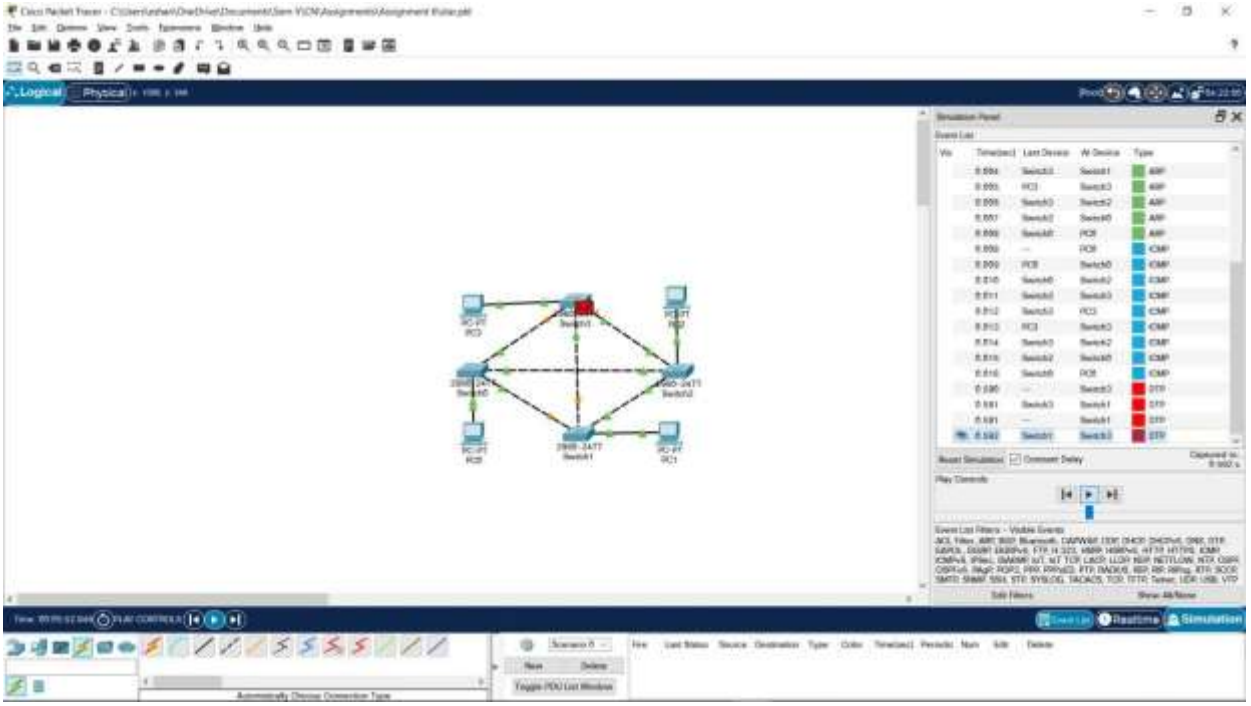
The mesh topology has a unique network design in which each computer on the network connects to every other. It is develops a P2P (point-to-point) connection between all the devices of the network. It offers a high level of redundancy, so even if one network cable fails, still data has an alternative path to reach its destination.

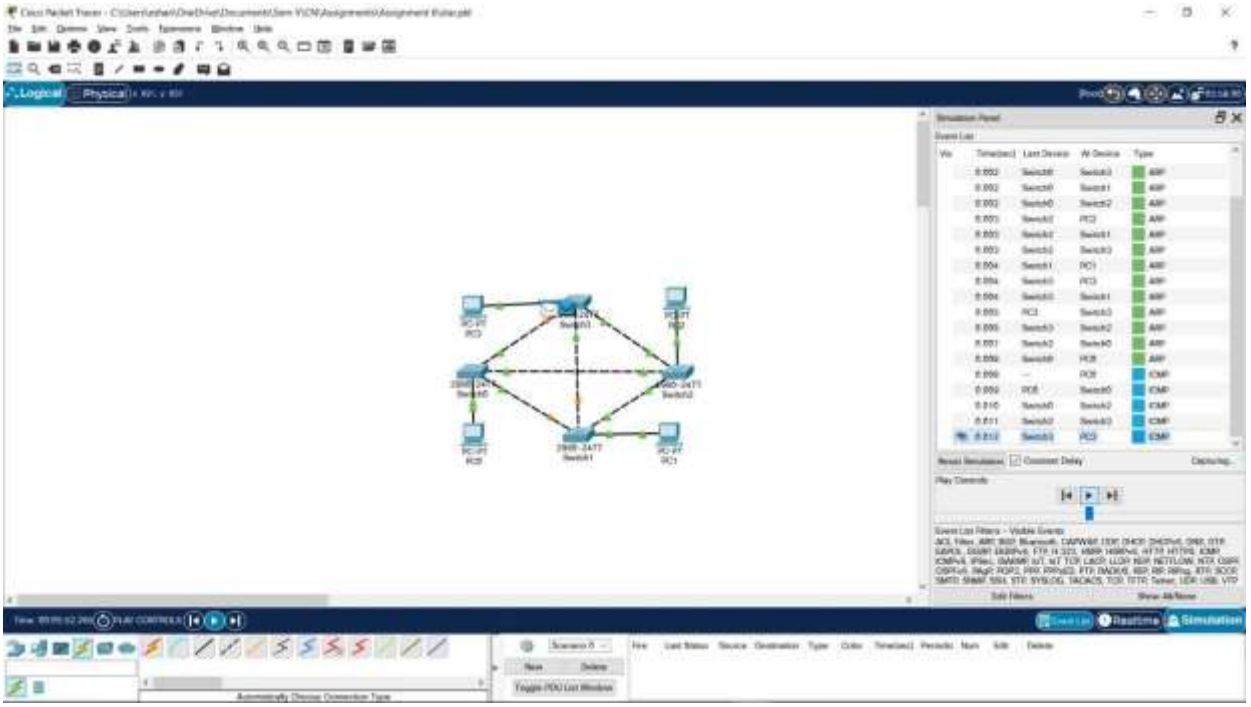


Let's try ping command from PC0 to PC3

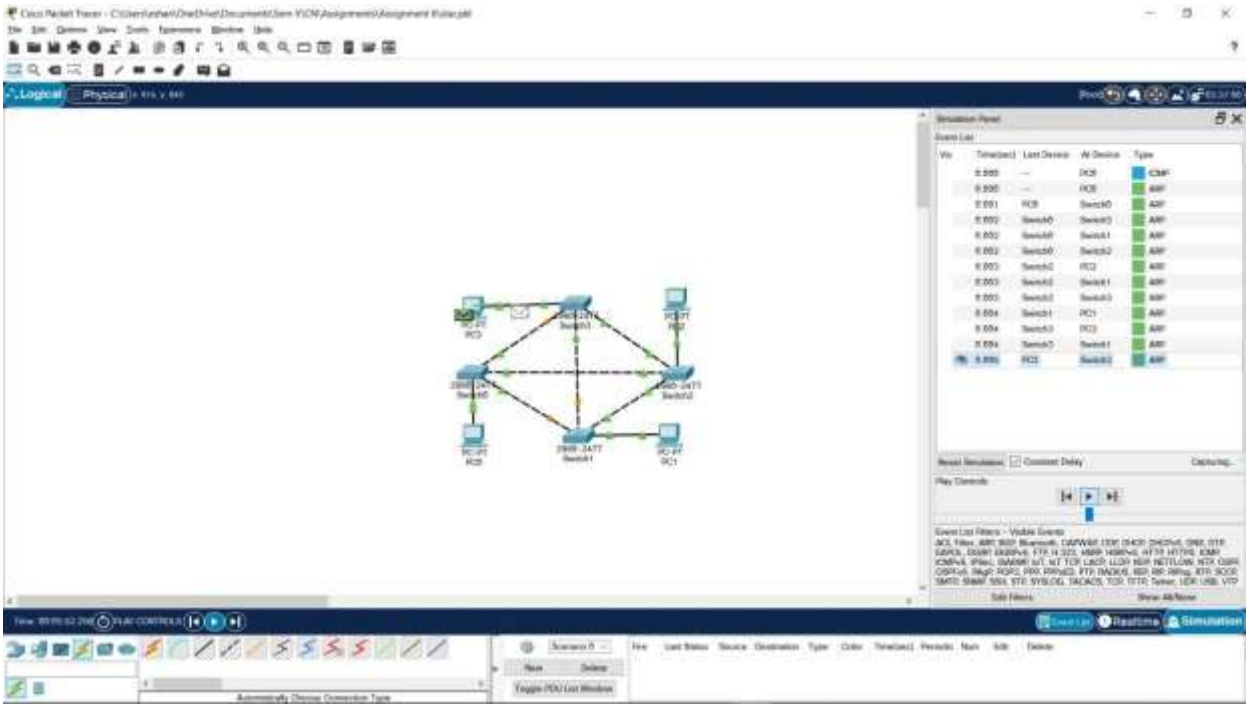


Message travels from PC0

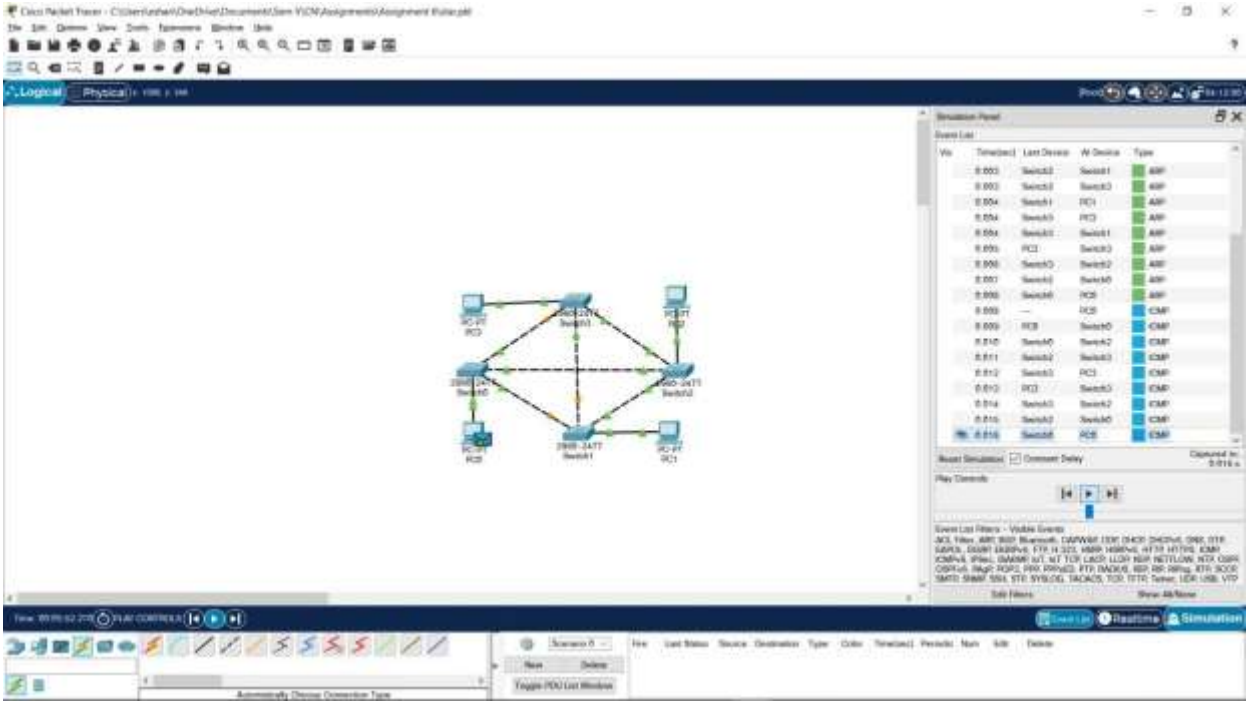




Message reaches destination (PC3).

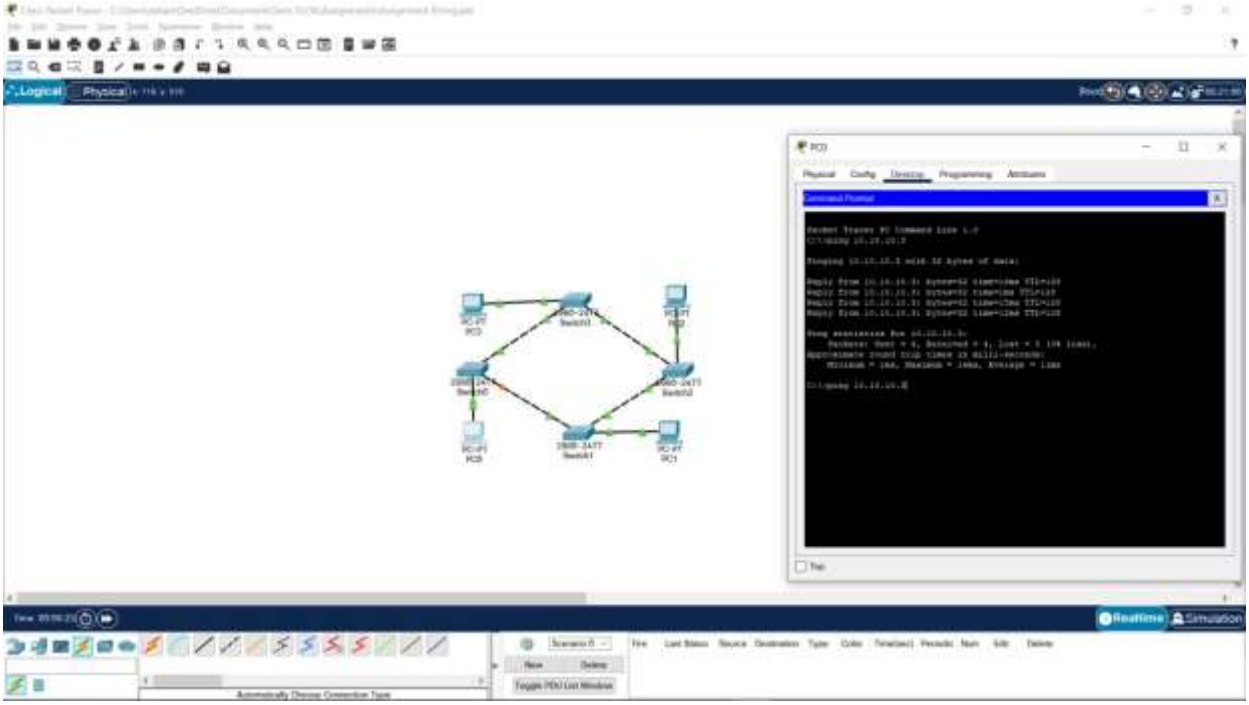


PC0 receives reply.

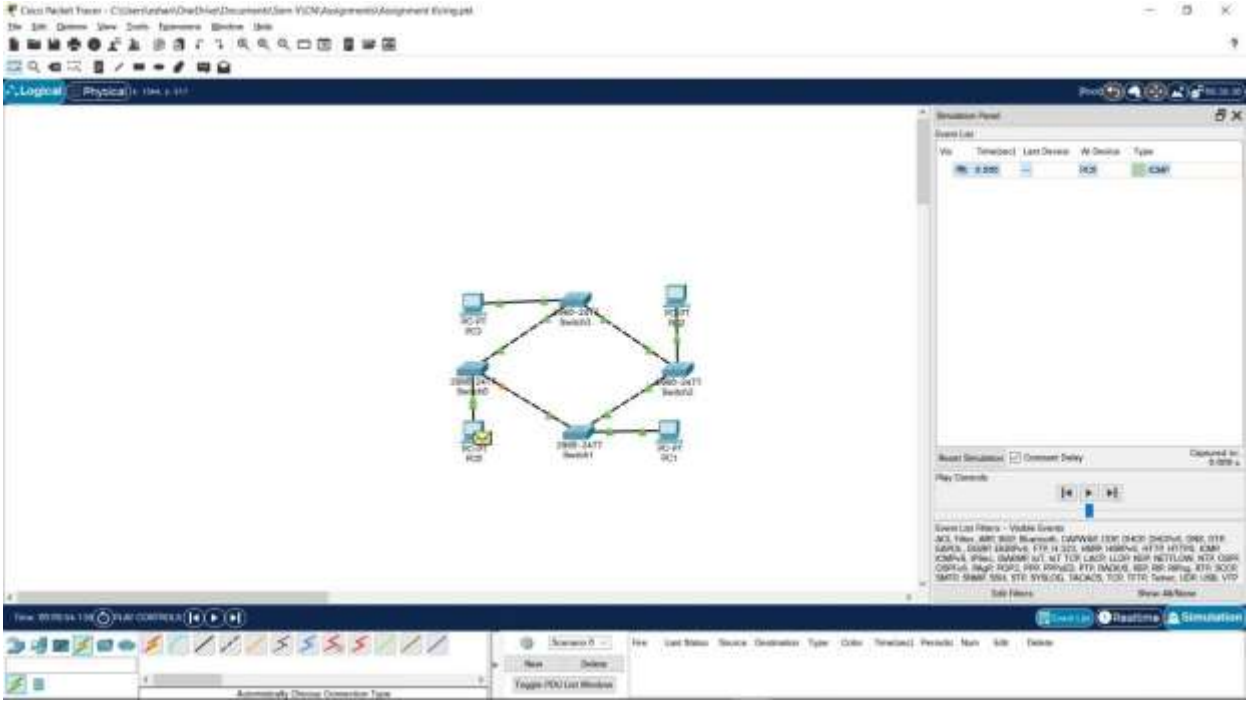


RING TOPOLOGY

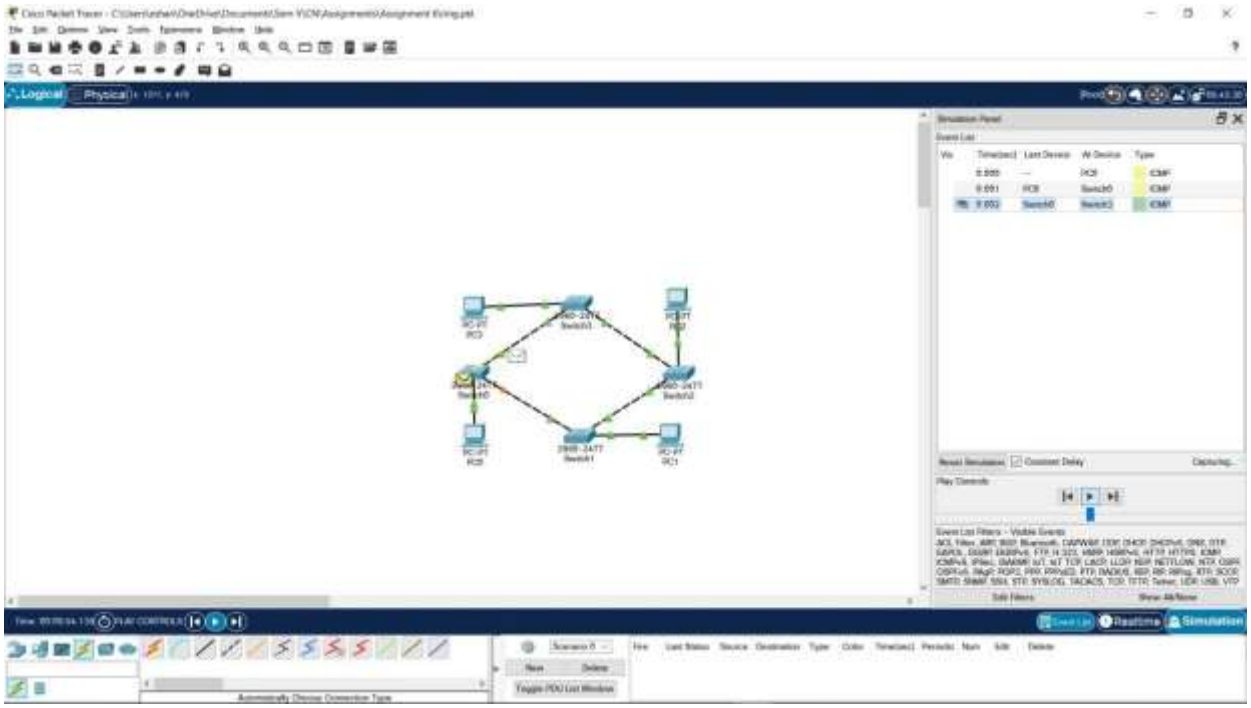
A ring topology is a network configuration where device connections create a circular data path. Each networked device is connected to two others, like points on a circle.



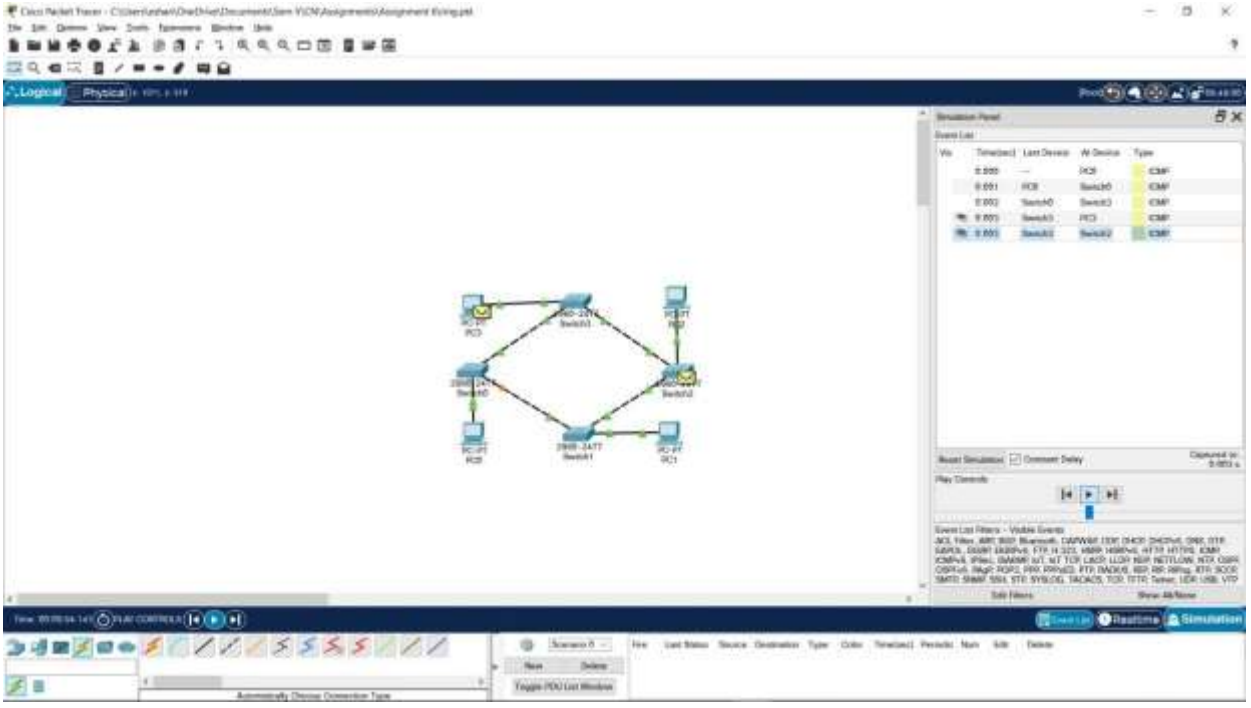
Let’s try ping command from PC0 to PC3



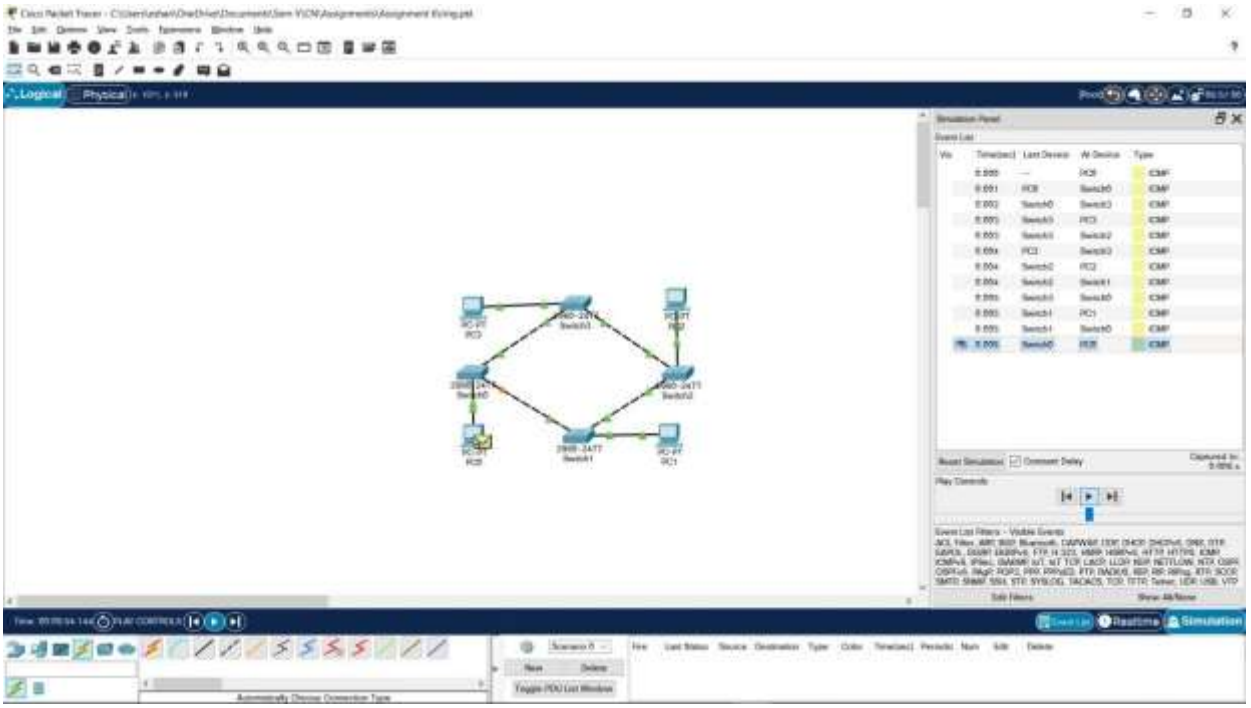
Message travels



Message reaches destination (PC3).

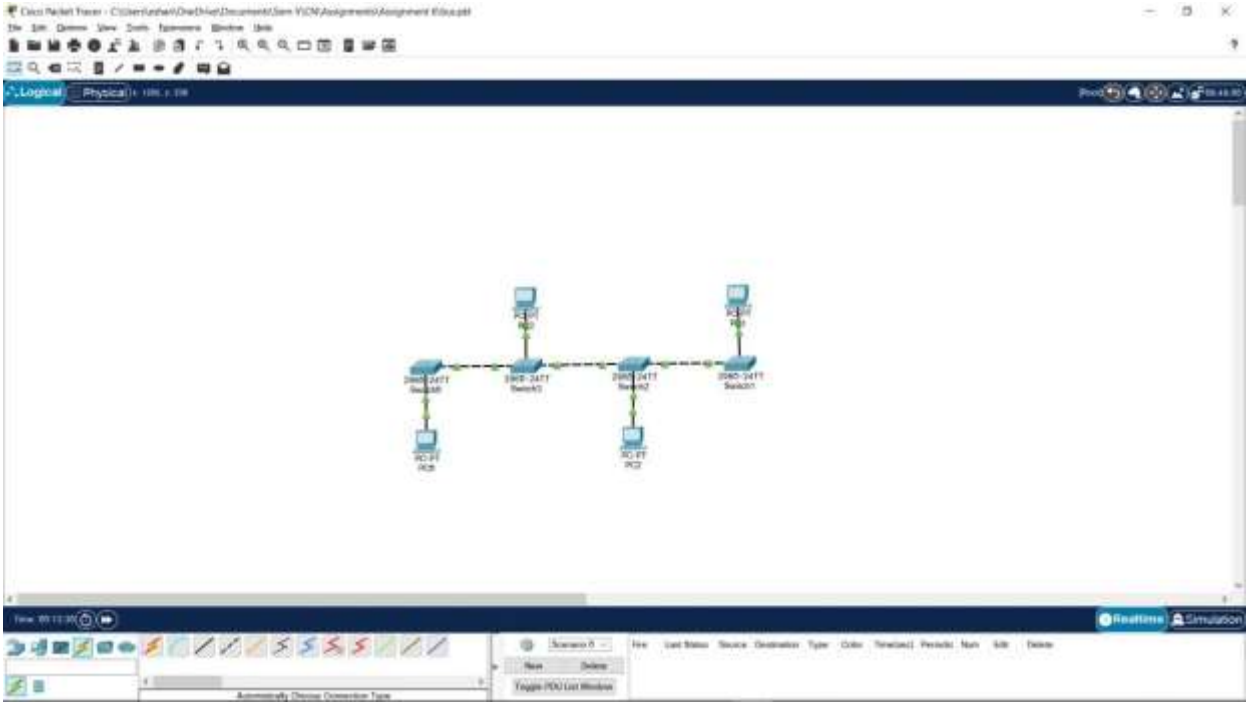


PC0 receives reply.

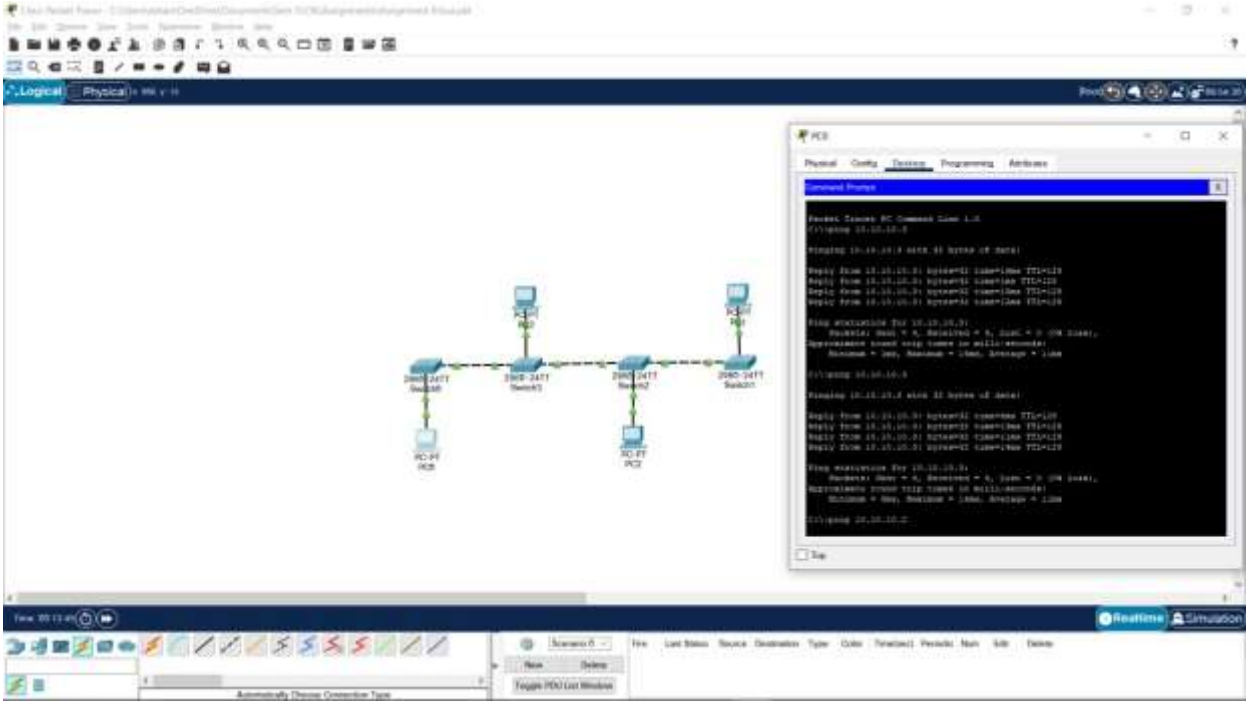


BUS TOPOLOGY

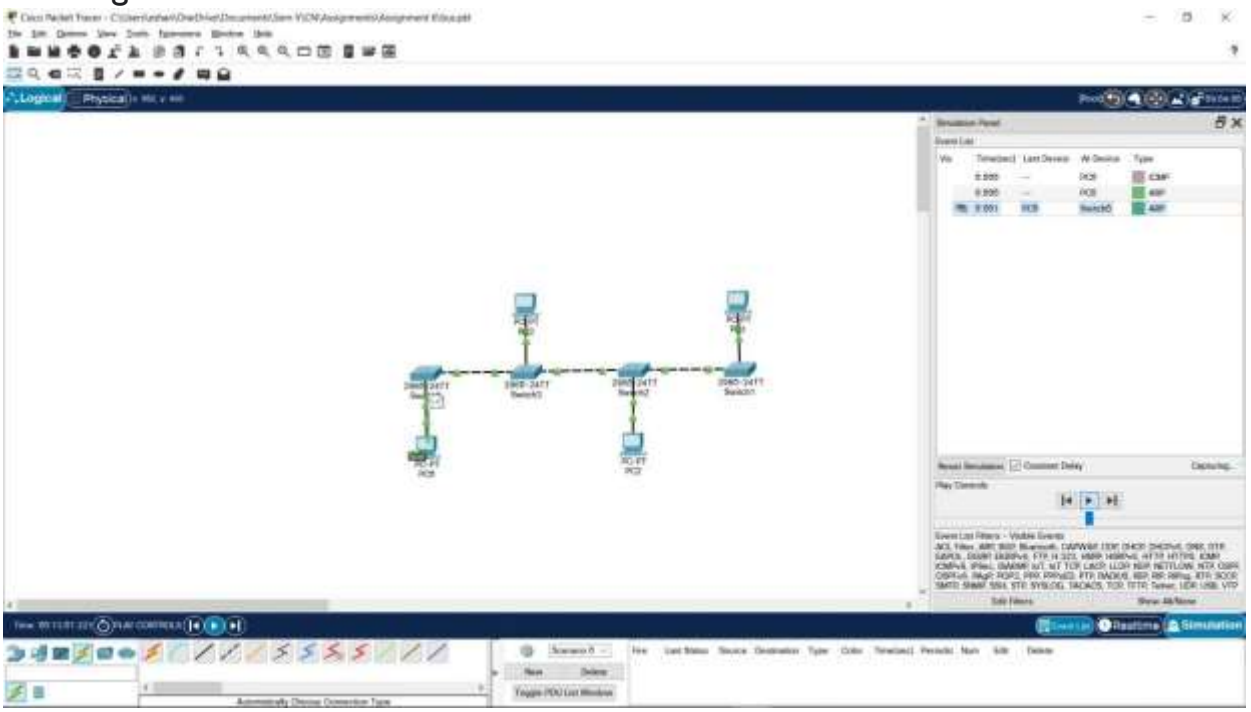
Bus topology is a network setup where each computer and network device is connected to a single cable or backbone.

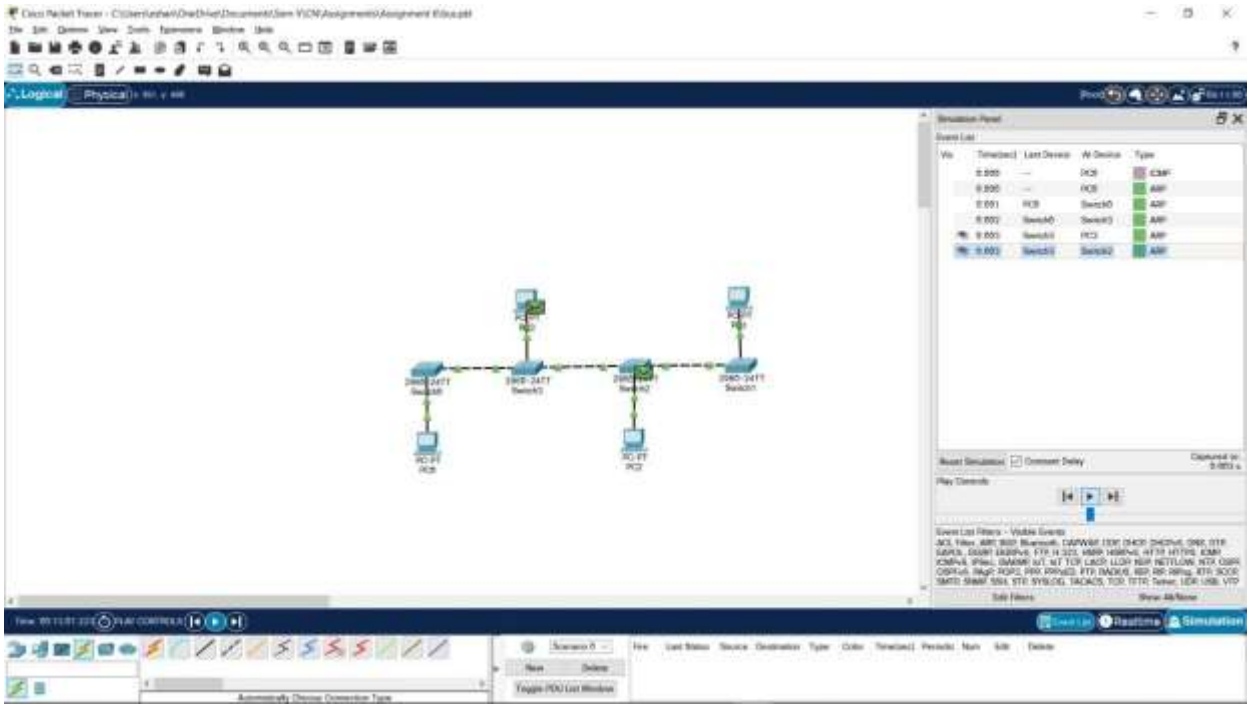


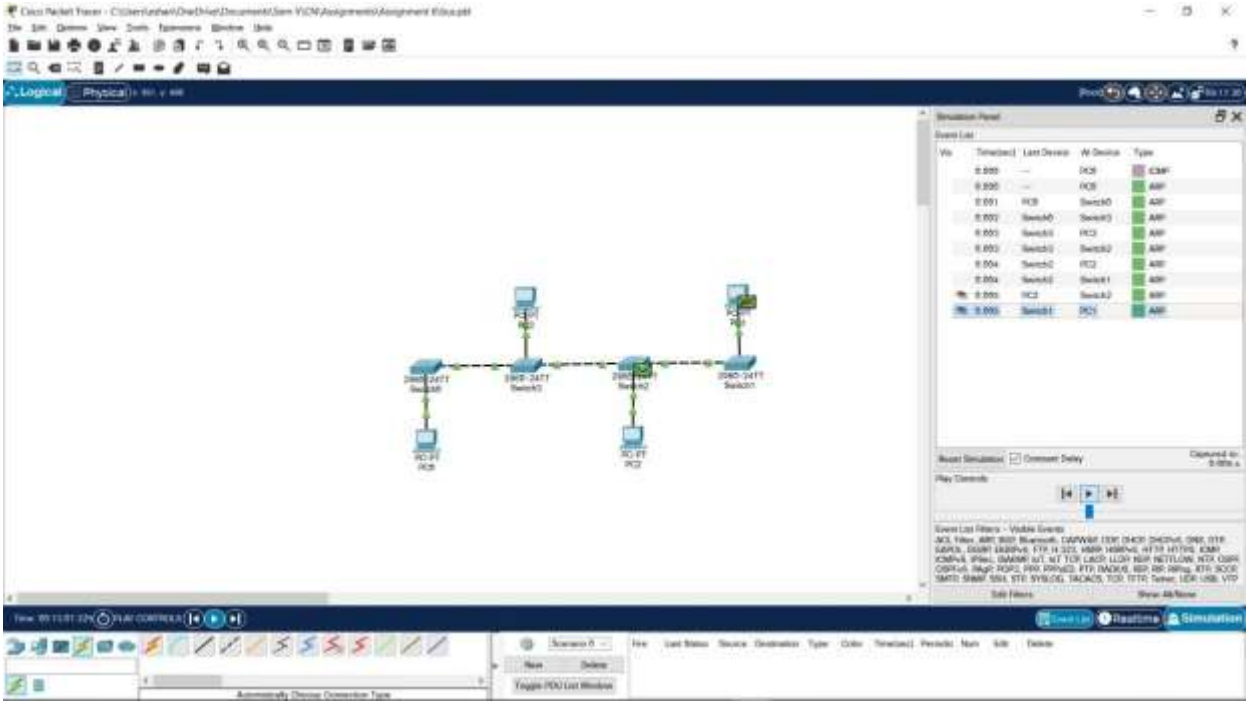
Let’s try ping command from PC0 to PC2



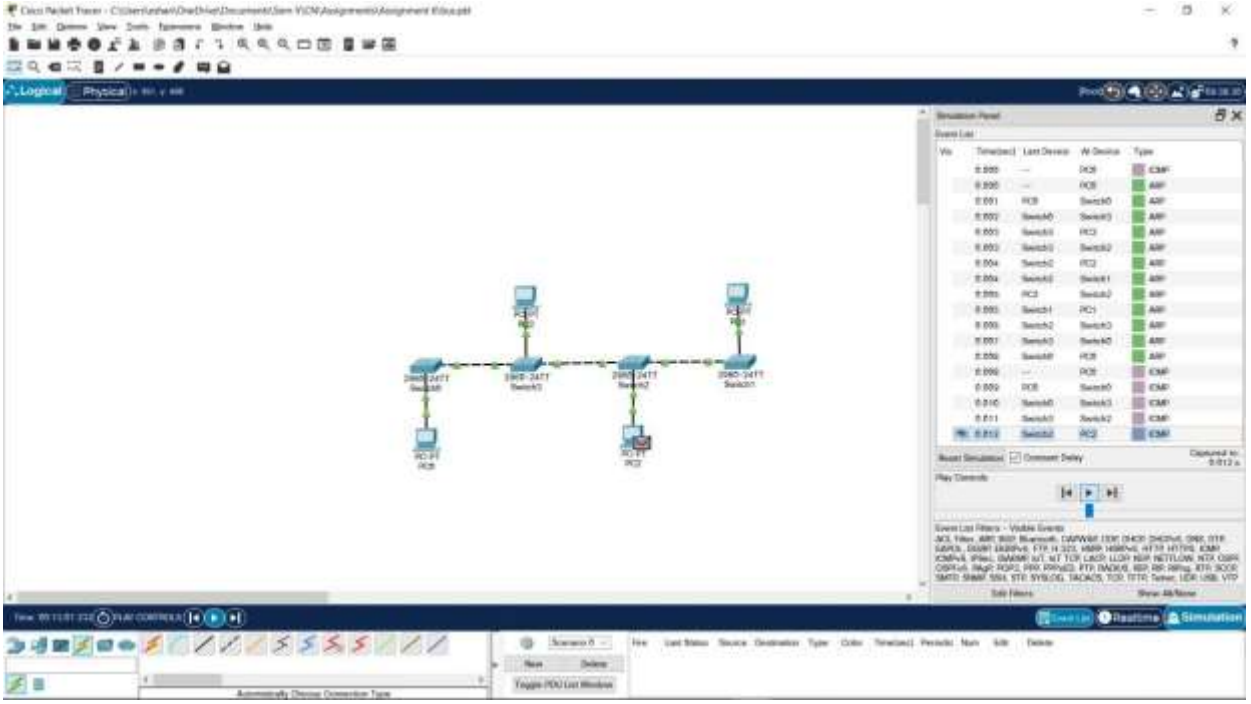
Message travels from Bus







Message reaches PC2



PC0 receives reply.