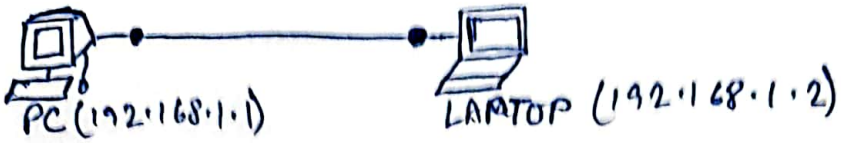
ASSIGNMENT-2

Network Topology—

1. Point to Point Topology



It is a type of topology that works on the functionality at the sender and receiver. It is the simplest communication between two endpoints or end nodes. They provide high bandwidth.

2. Terminal (PC) [192.168.1.1]

PC> ping 192.168.1.2

pinging 192.168.1.2 with 32 bytes of data:

Reply from 192.168.1.2: bytes=32 time=2ms TTL=128
Reply from 192.168.1.2: bytes=32 time=0ms TTL=128
Reply from 192.168.1.2: bytes=32 time=0ms TTL=128
Reply from 192.168.1.2: bytes=32 time=0ms TTL=128

Ping statistics for 192.168.1.2;
Packets: Sent=4, Received=4, Lost=0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum=0ms, Maximum=2ms, Average=0ms

Terminal (LAPTOP) [192.168.1.2]

PC> ping 192.168.1.1

pinging 192.168.1.1 with 32 bytes of data:

Reply from 192.168.1.1: bytes=32 time=2 0ms TTL=128
Reply from 192.168.1.1: bytes=32 time=2 0ms TTL=128
Reply from 192.168.1.1: bytes=32 time=2 1ms TTL=128
Reply from 192.168.1.1: bytes=32 time=2 0ms TTL=128

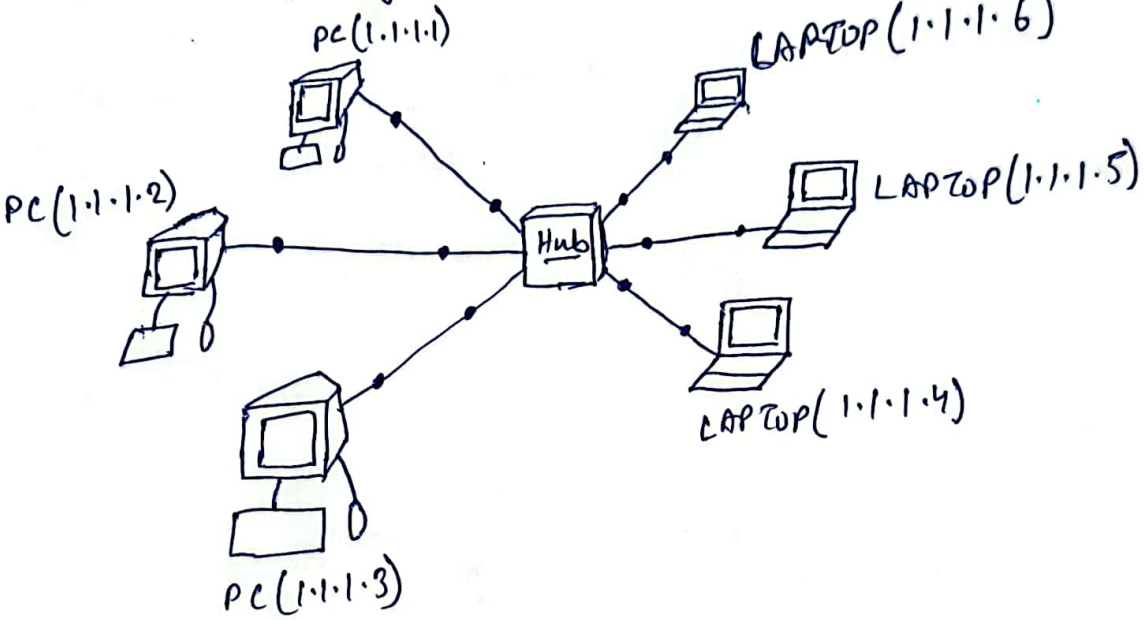
Ping statistics for 192.168.1.1:

Packets: Sent=4, Received=4, Lost=0 (0% Loss),

Approximate round trip times in milli-seconds:

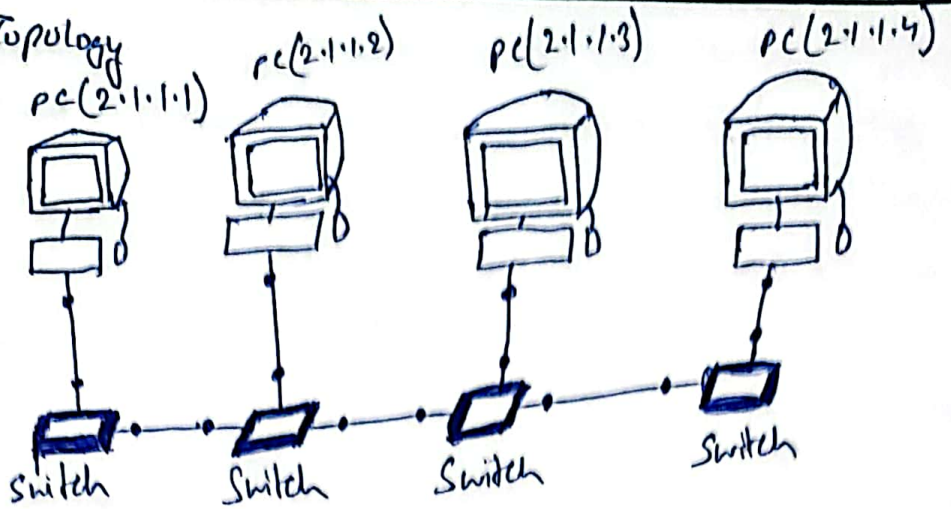
Minimum=0ms, Maximum=2ms, Average=0ms

2. Star Topology



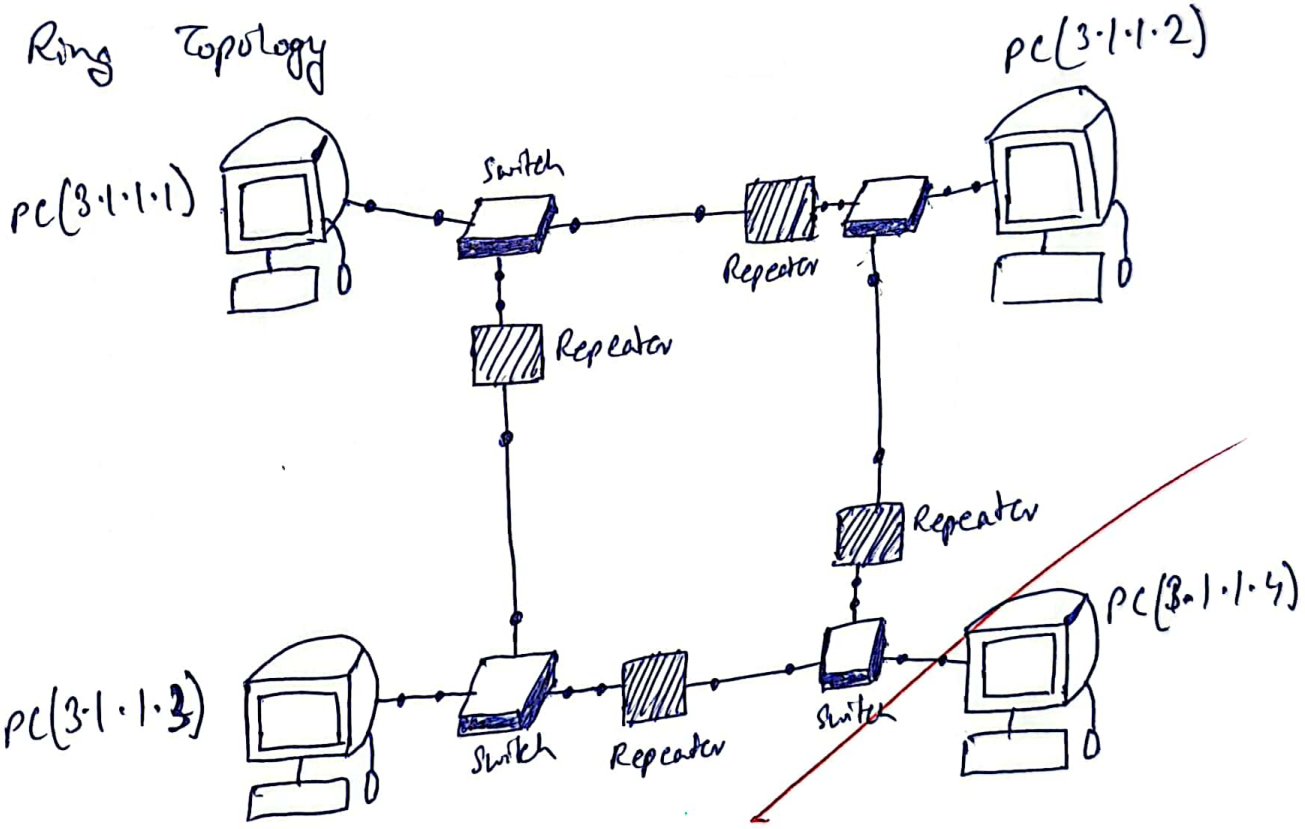
The nodes are connected to the central hub or router in which the information is travel from the central hub or router all to all the nodes. There are n links in Star topology if there are n nodes. The nodes are completely connected by via a dedicated link in which the information is travel from node to node.

3. Bus Topology



It is a type of network topology in which all the devices are connected to a single cable which is called the backbone of the network. It consists of switches. The network cable is responsible for the communication between the devices when the data reaches the end of the cable. It is

4. Ring Topology



It forms a ring connecting devices with exactly two neighboring devices. Repeaters are used for ring topology with a large number of nodes.

Paul
24/8/23