BASICS OF COMMUNICATION SYSTEM

PRACTICAL-1

AIM: TO LEARN SWITCH AND HUB NETWORK

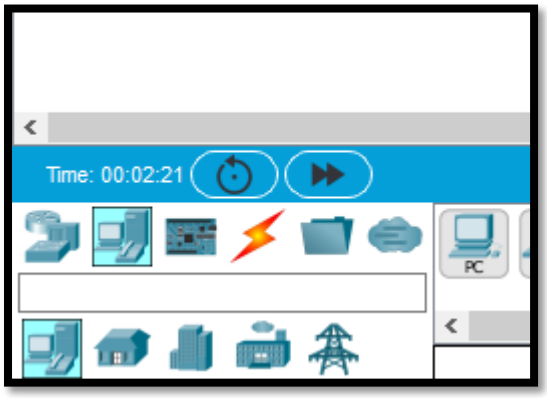
1 What is cisco packet tracer?
2 Why do we use simulator?
3 Then what is cisco packet simulator?
4 How does it work?
5 Why do we need to use it?
6 What is a ping command and what is use of it?
7 What is the main differences between switch and hub?

STEPS TO BE FOLLOWED :

1 START TO ESTABLISH LAN CONNECTION

Step: 1 Establish a connection through LAN

Open cisco packet tracer click on pc through end user



Step: 2 Drag and drop it on canvas

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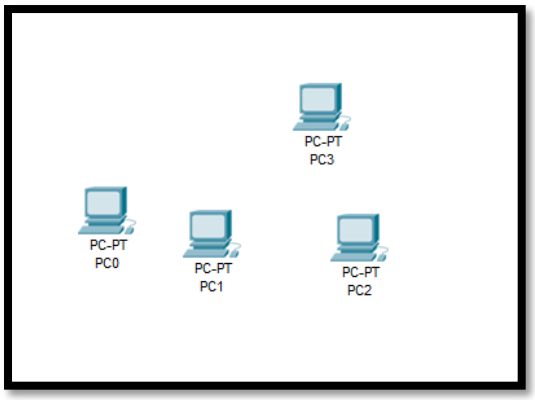
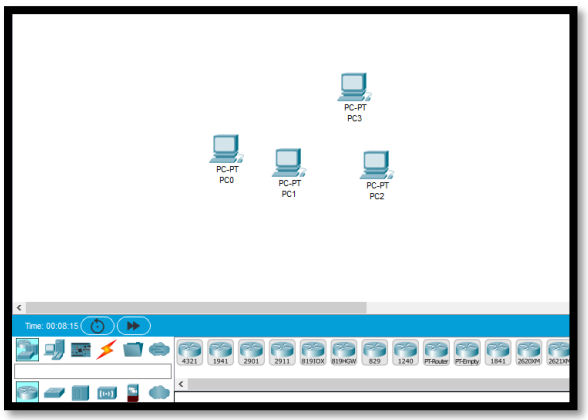
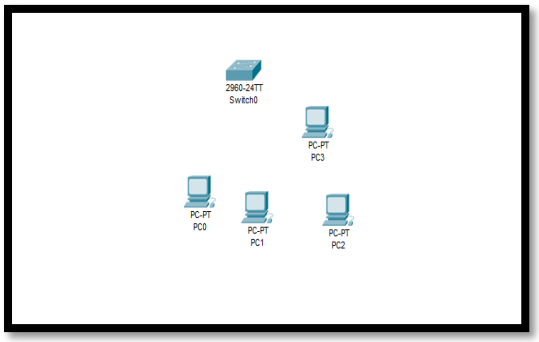


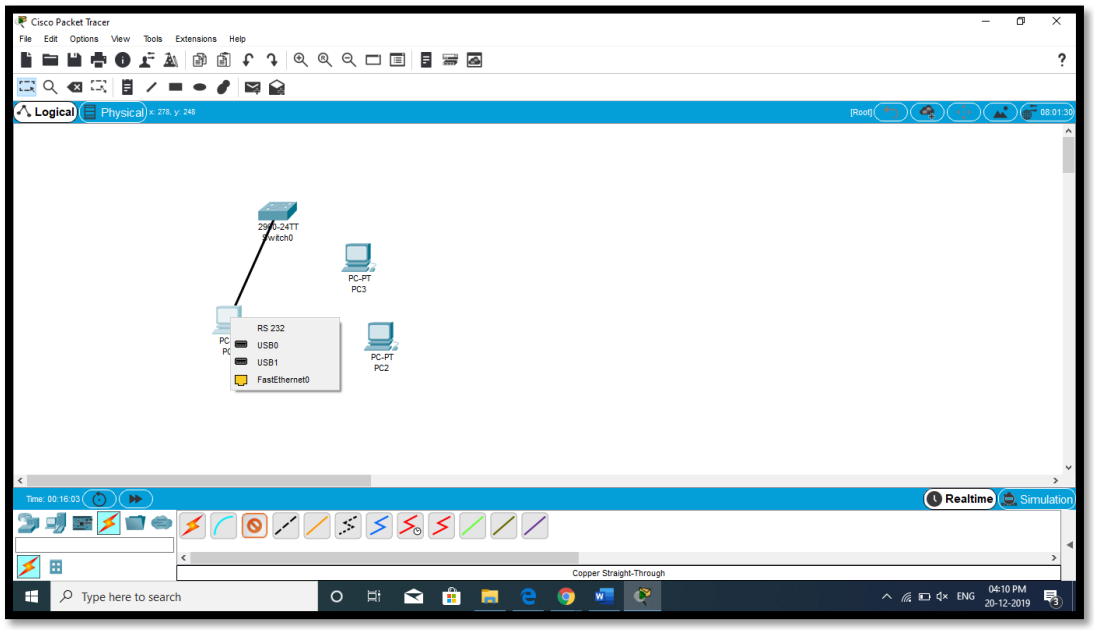
Step 3: select a switch to connect all pcs



Step 4: after that peak switch and put on canvas

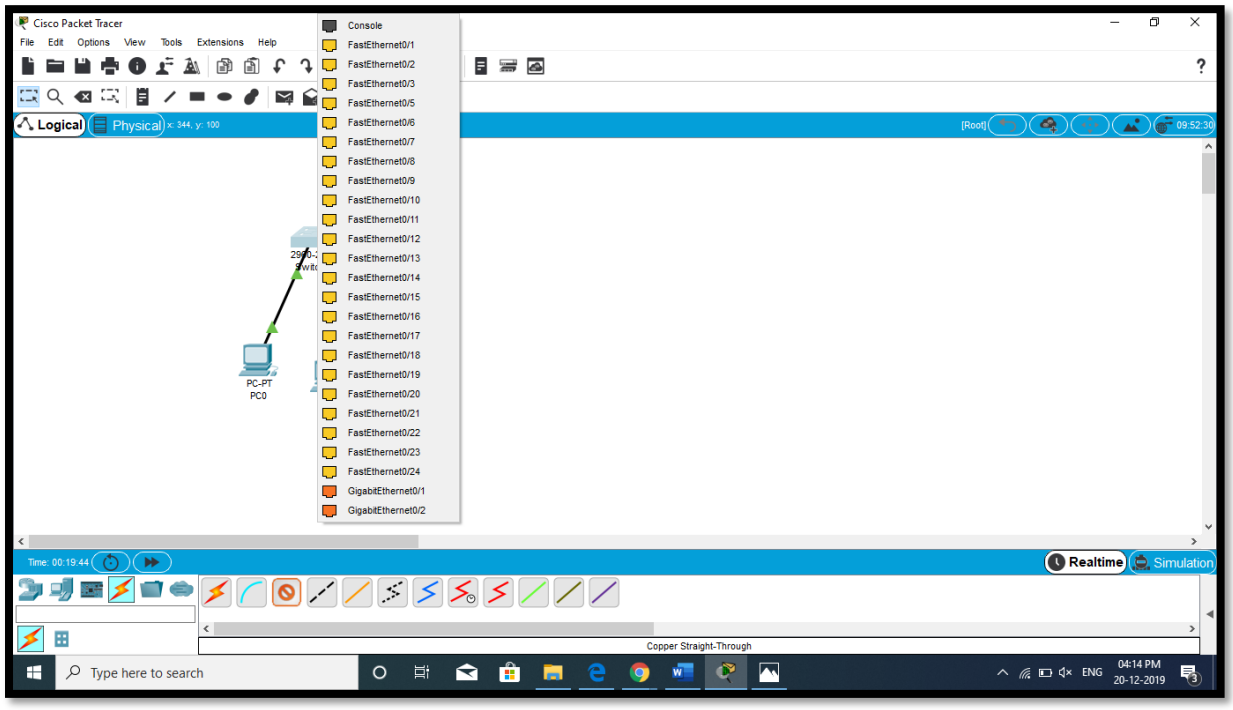


Step 5:connect switch and pc through wires



At times of connecting consider all connection are proper for that protocols like select internet port if u want to switch to be connected with internet

Step 6: number of ports are higher in switch :



Step 7: connect all of them by wires through single line connection

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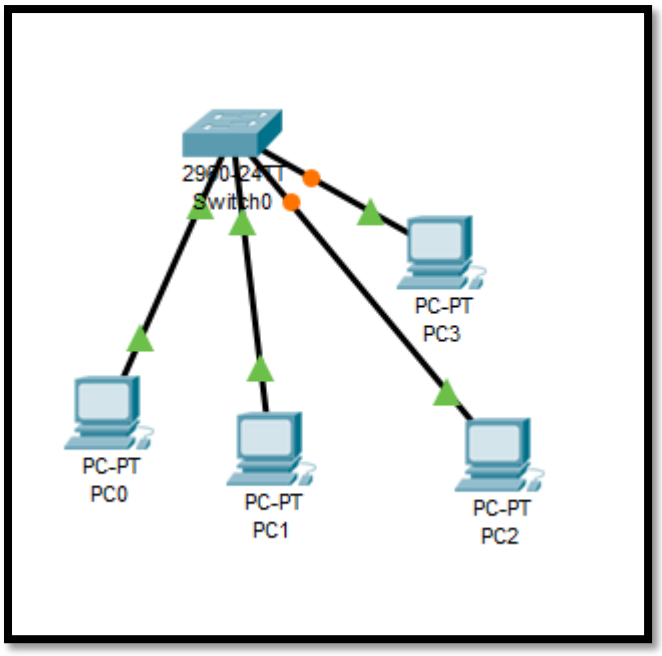
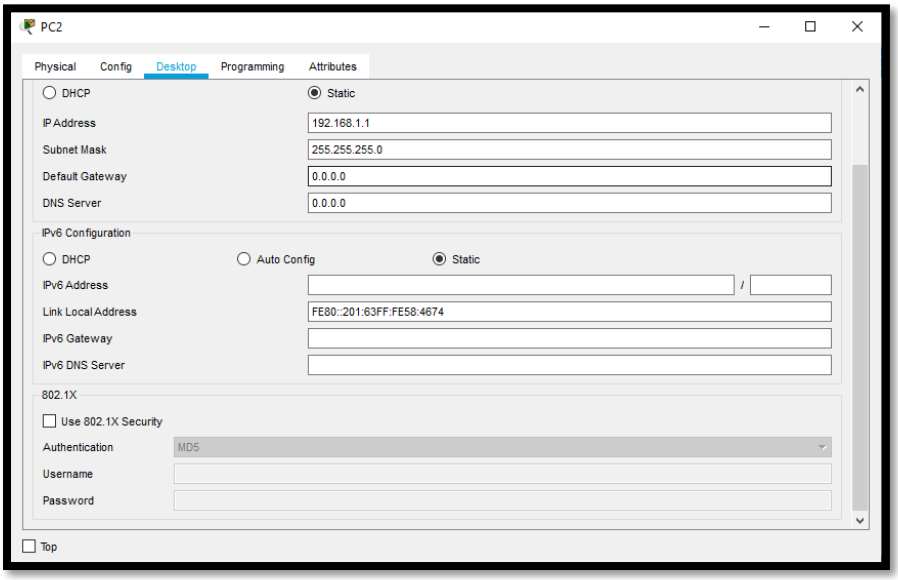
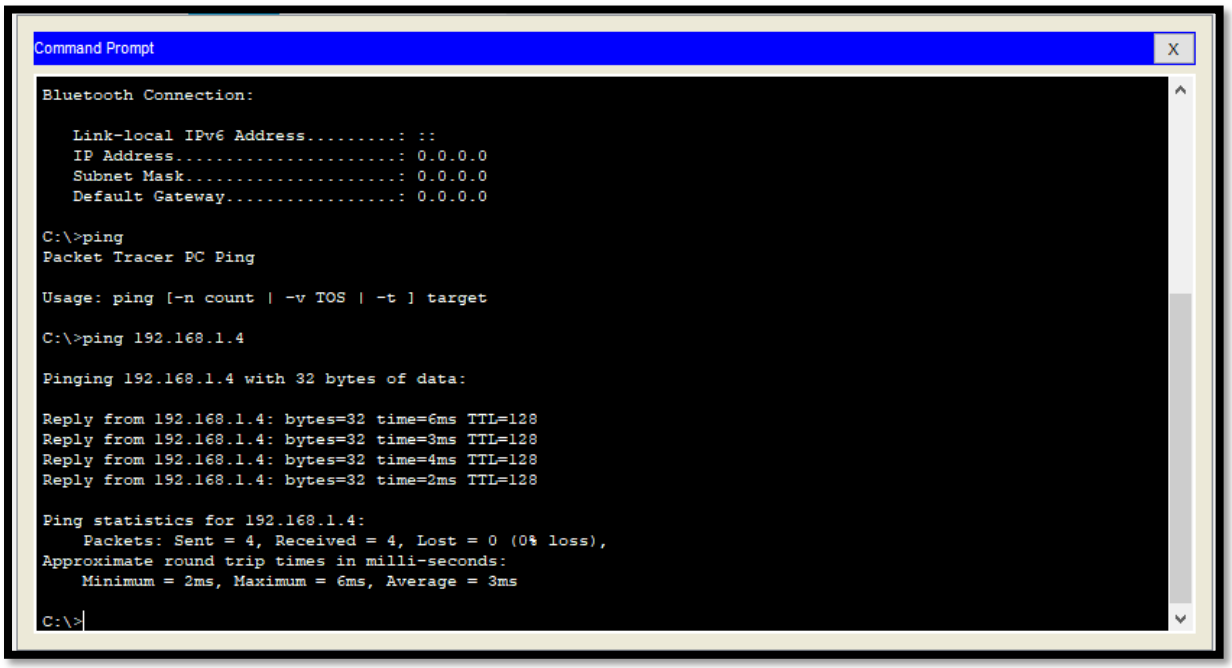


Step 8: give ip address to all



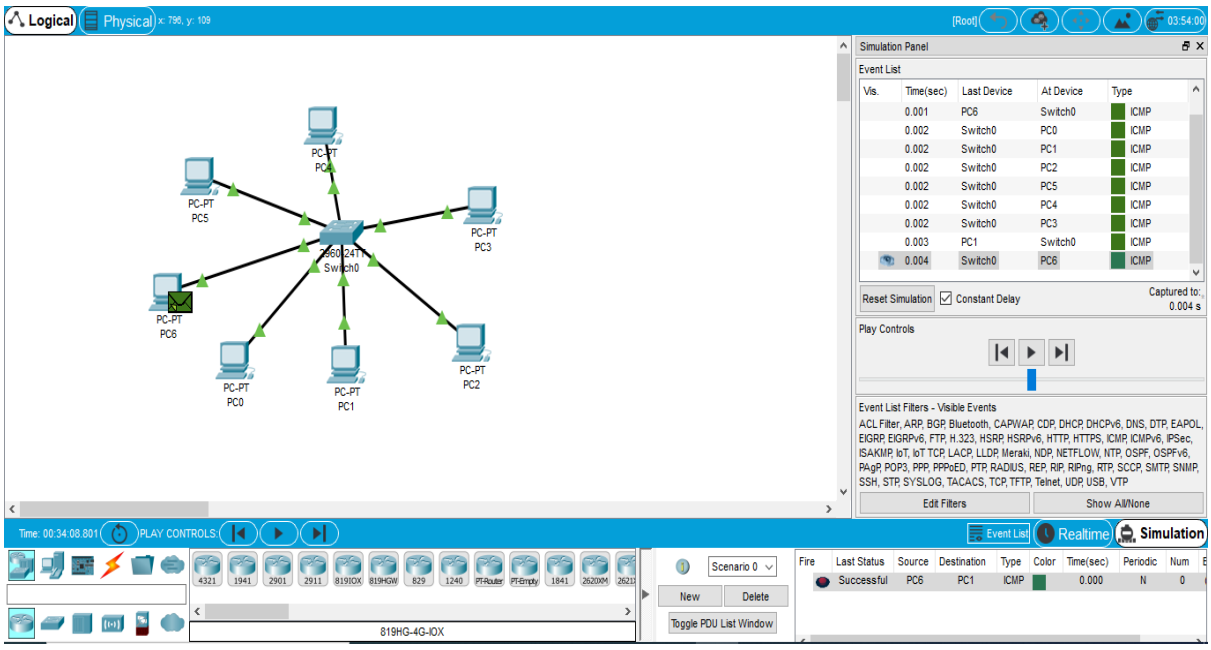
Step: 9 ping command to check connectivity

Practical 1



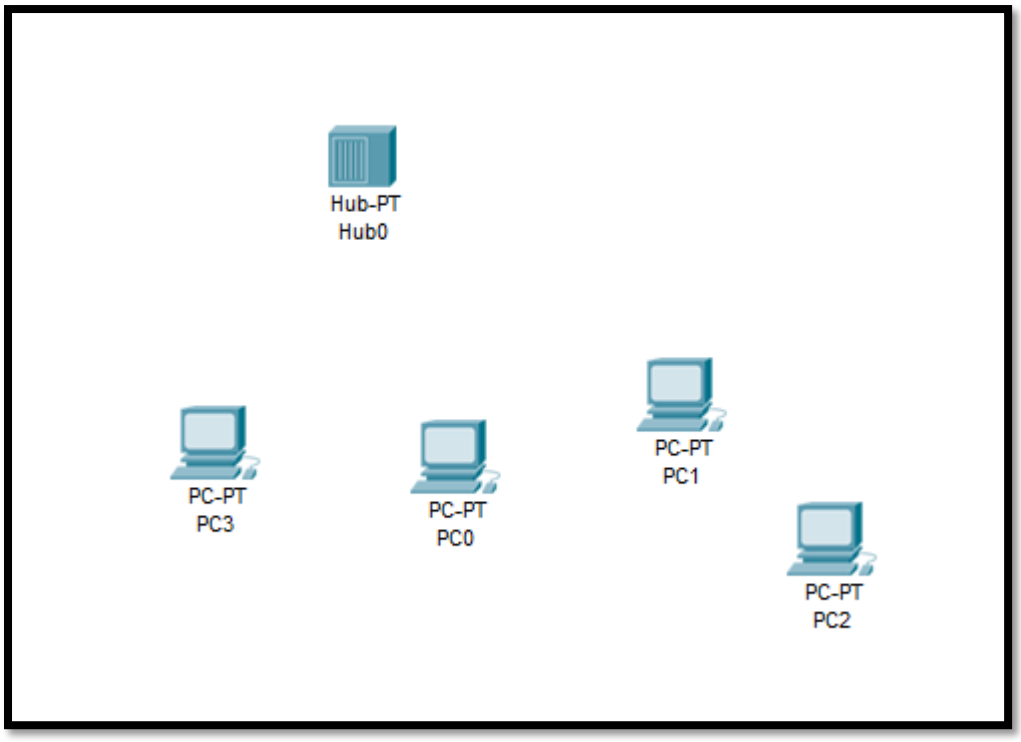
Step: 10 ipconfig to check ip address

Step: 11 check simulation

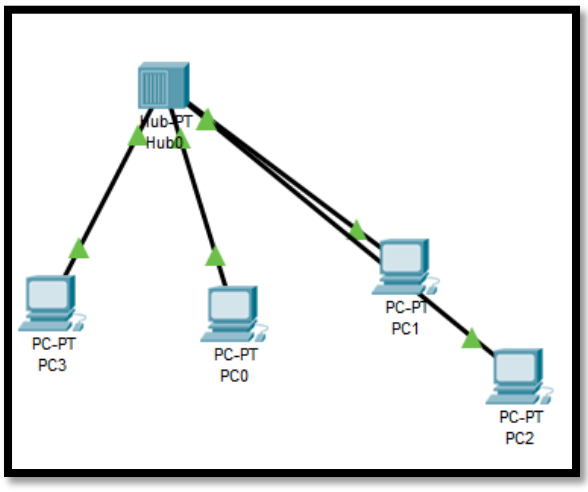


Steps in hub connection

Step 1: connect all pcs from previous stage and establish a LAN connection

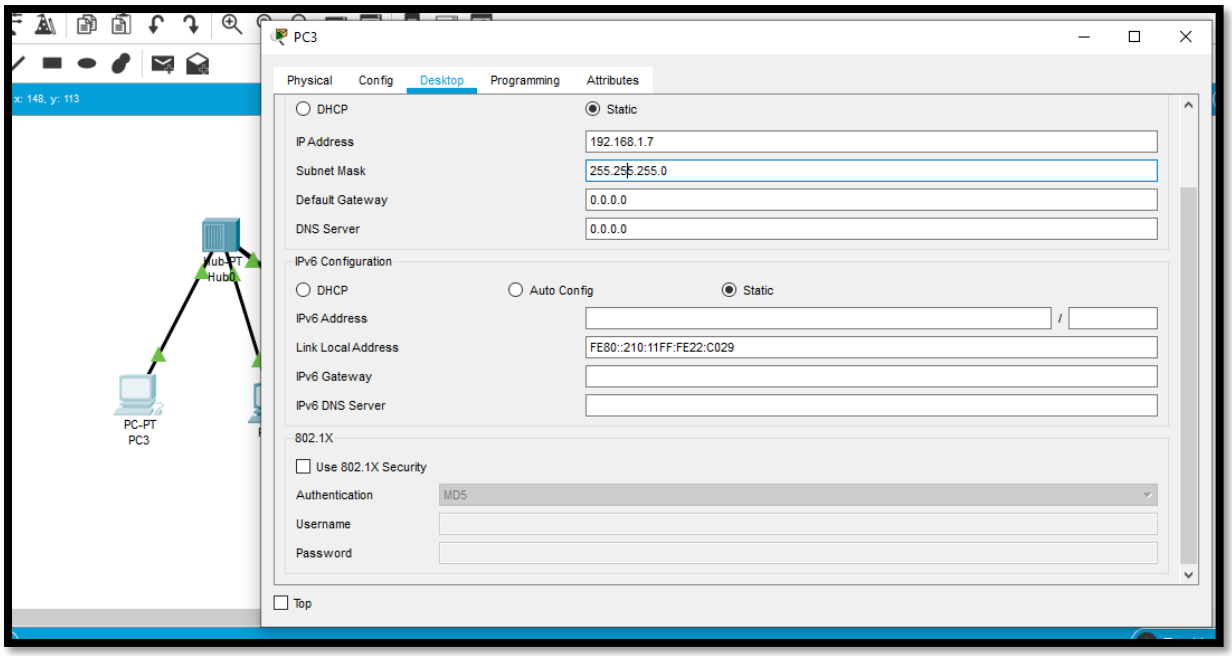


Step 2 connect wires to hub and check the connectivity through ping

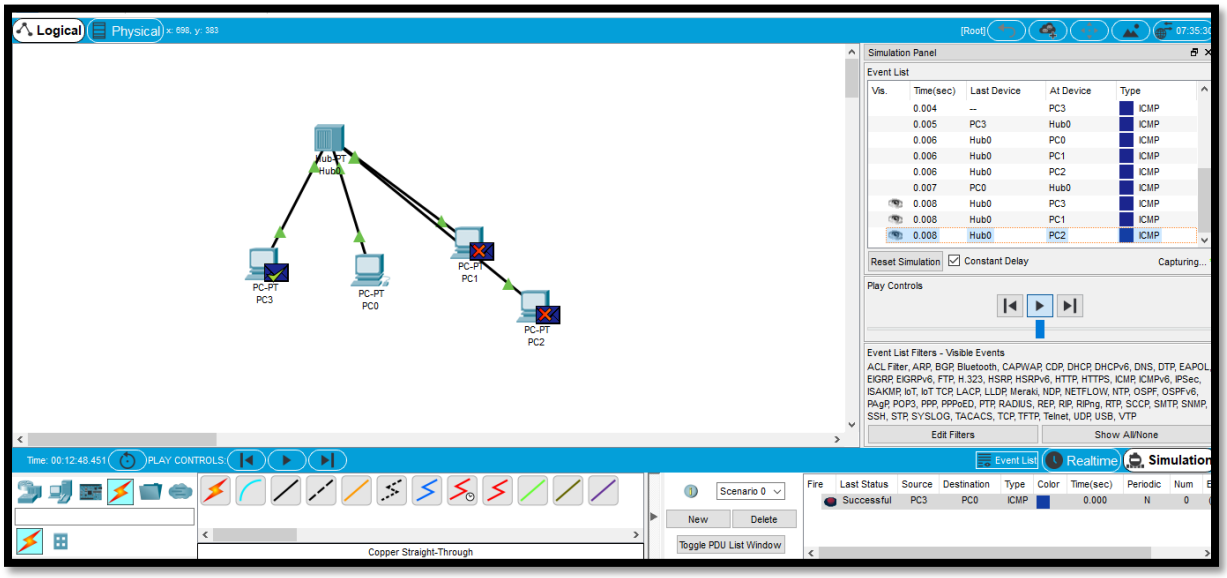


Step 3: Give ip address to all pcs and check their connectivity through ping command

Practical 1

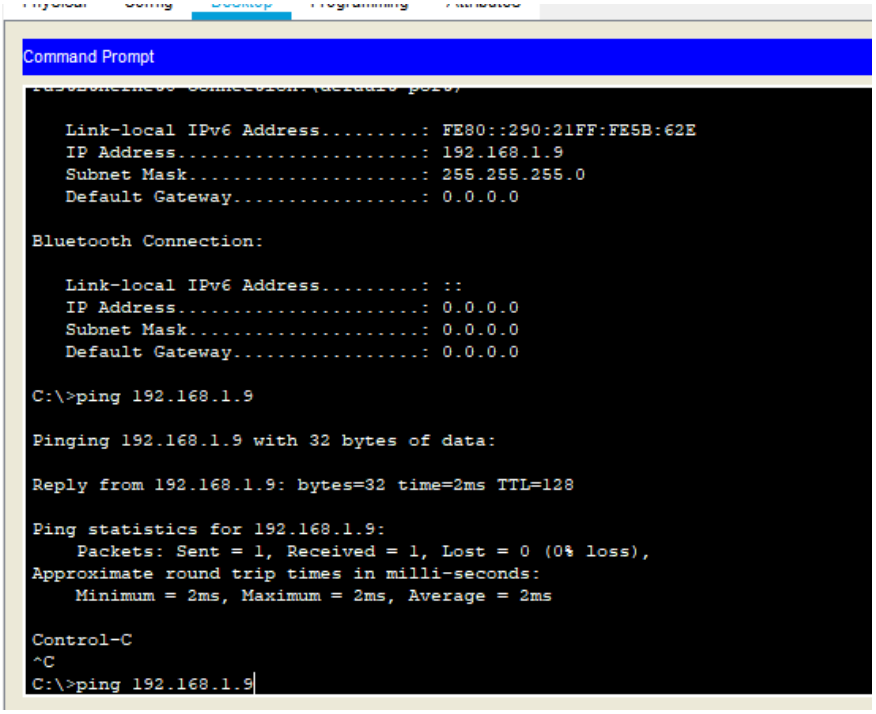


step 4 :run on simulation to get output



Step last : check ping command is working or not

Practical 1



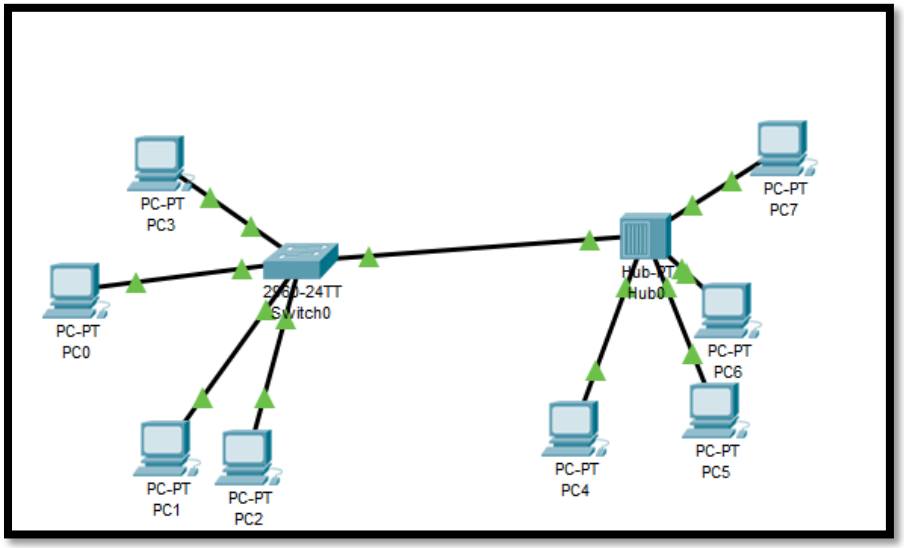
Here no packetlost so its working and rechability is also ok

Steps for hub and switch (hybrid connection)

The keynote is hub is not as secure as switch as switch is smarter than the hub

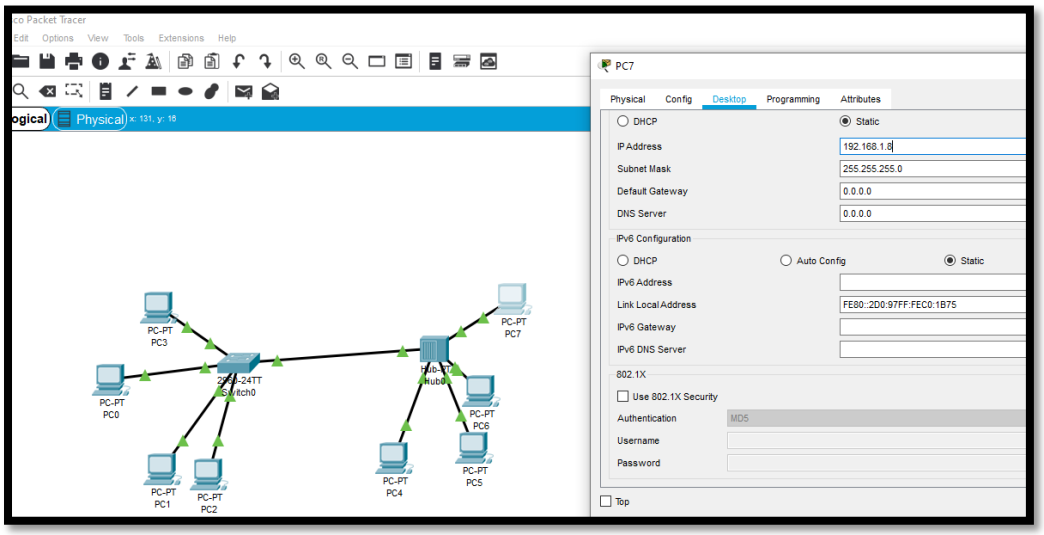
Step 1: connect group of pcs to hub and another group of pcs to switch through single wire connection as mentioned above

Connect switch and hub

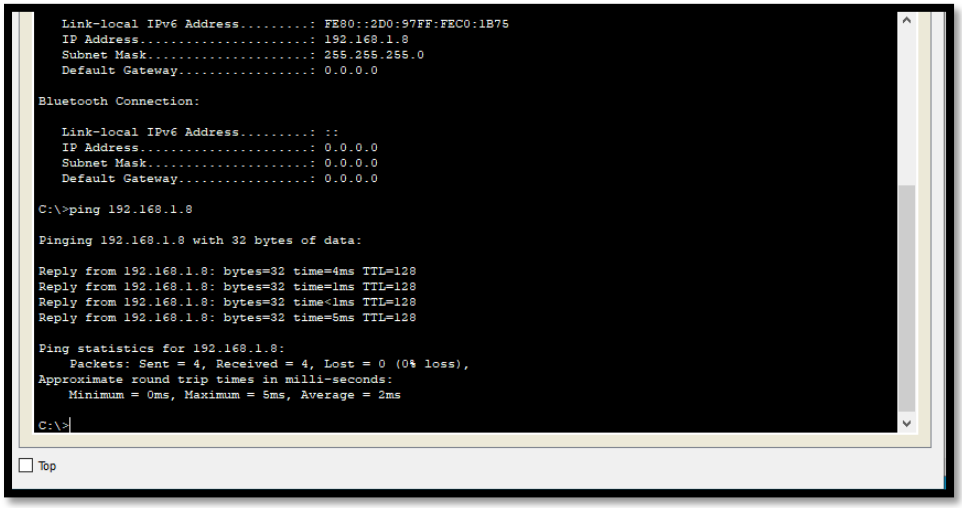


Practical 1

Step 2 give them ip address and check ping command



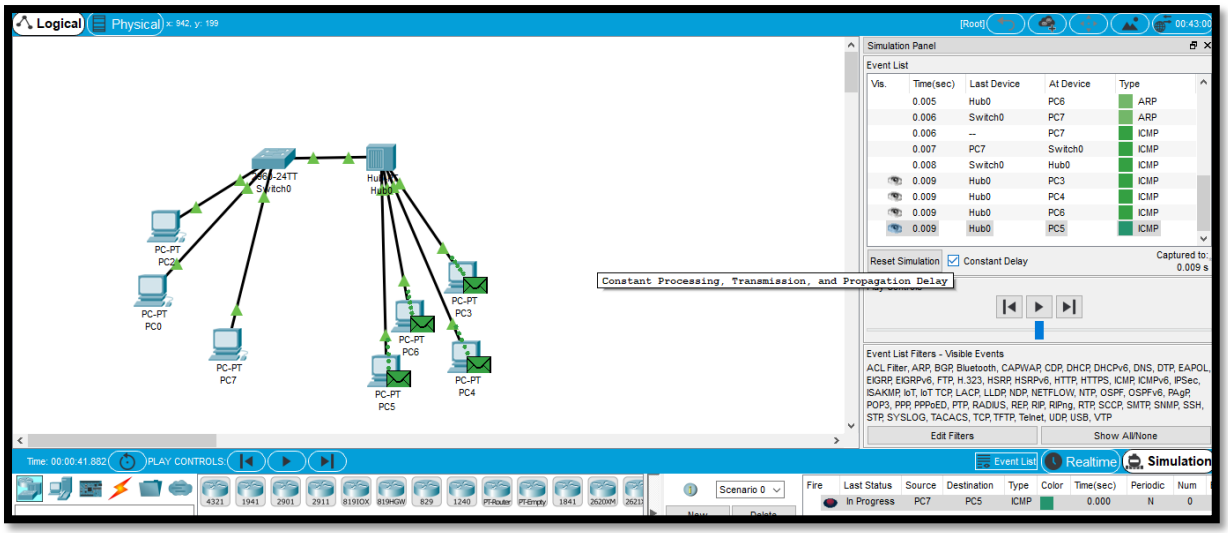
Step 3 ping command



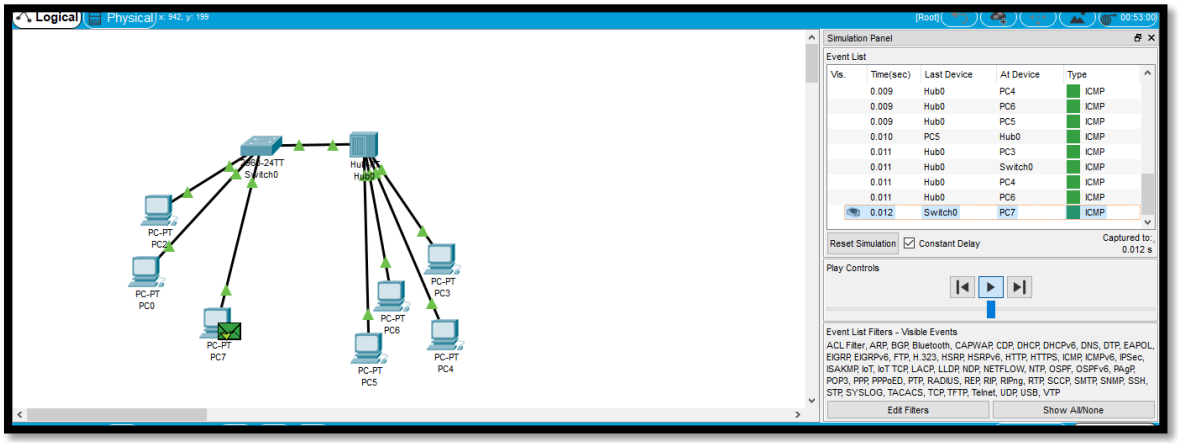
Step last : run on simulation to get desired output in success form

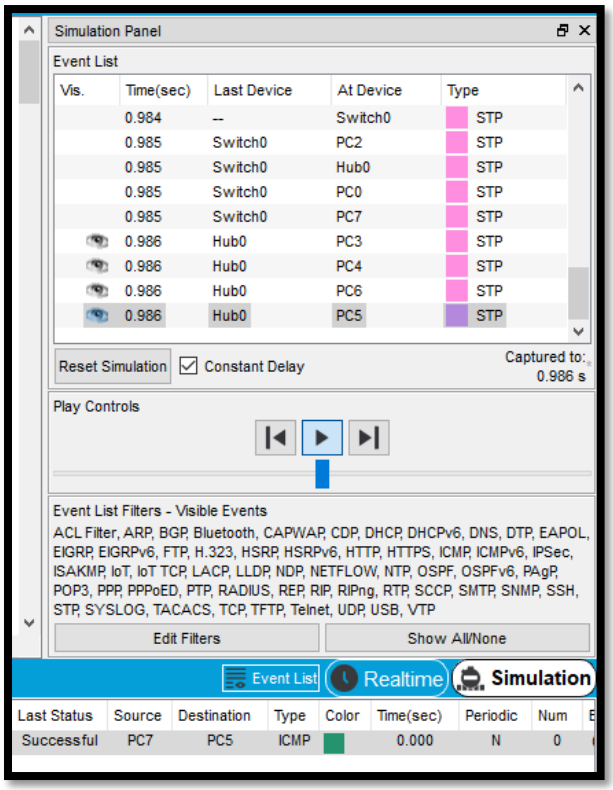
Here hub is supplying or broadcasting message to all

Practical 1



Whereas switch broadcast it to only one




Simulation Panel
Event List
Vis. Time(sec) Last Device At Device Type
0.984 -- Switch0 STP
0.985 Switch0 PC2 STP
0.985 Switch0 Hub0 STP
0.985 Switch0 PC0 STP
0.985 Switch0 PC7 STP
0.986 Hub0 PC3 STP
0.986 Hub0 PC4 STP
0.986 Hub0 PC6 STP
0.986 Hub0 PC5 STP
Reset Simulation
Constant Delay
Captured to: 0.986 s
Play Controls
Event List Filters - Visible Events
ACL Filter, ARP, BGP, Bluetooth, CAPWAP, CDP, DHCP, DHCPv6, DNS, DTP, EAPOL, EIGRP, EIGRPv6, FTP, H.323, HSRP, HSRPv6, HTTP, HTTPS, ICMP, ICMPv6, IPSec, ISAKMP, IoT, IoT TCP, LACP, LLDP, NDP, NETFLOW, NTP, OSPF, OSPFv6, PAgP, POP3, PPP, PPPoED, PTP, RADIUS, REP, RIP, RIPng, RTP, SCCP, SMTP, SNMP, SSH, STP, SYSLOG, TACACS, TCP, TFTP, Telnet, UDP, USB, VTP
Edit Filters
Show All/None
Event List
Realtime
Simulation
Last Status Source Destination Type Color Time(sec) Periodic Num
Successful PC7 PC5 ICMP 0.000 N 0