LOVELY PROFESSIONAL UNIVERSITY

DATA COMMUNICATION AND NETWORKING LABORATORY

NAME :- ARUN KUMAR

ROLL NO :-36

REG NO. :- 12208521

SECTION :- D2215

GROUP :- G1

SUBJECT CODE :- CAP 276

LABORATORY NO:- 2 (CA 2)

DATE :- 20/10/2022

Step 1:-

First, Open The Cisco Packet Tracer Desktop And Select The Devices Given Below:

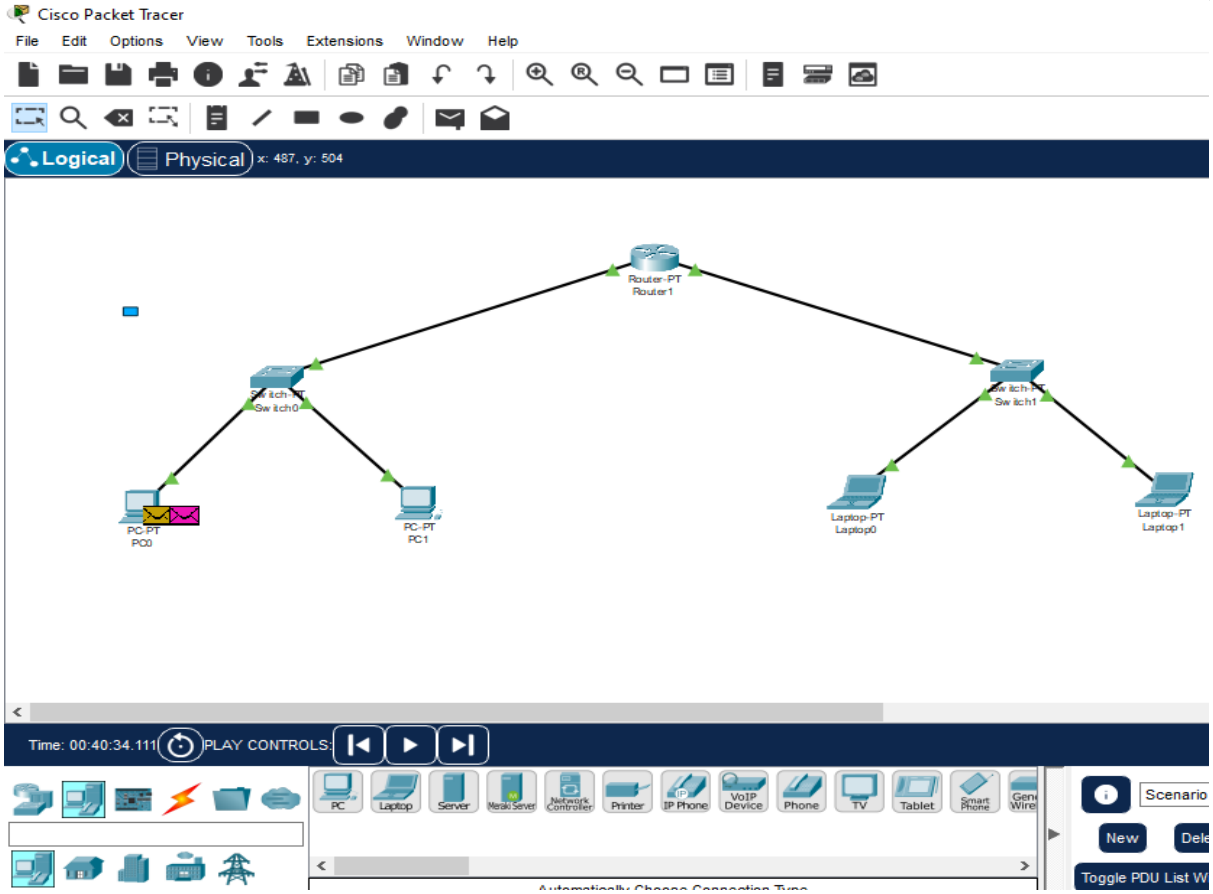
S.no.	Device	Model Name
1.	PC	PC
2.	Switch	PT - Switch
3.	Router	Router empty

IP Addressing Table:

S.no.	Device	IP4v Address	Subnet mask
1.	pc0	192.168.0.1	255.255.255.0
2.	pc1	192.168.0.2	255.255.255.0
3.	pc2	10.20.30.2	255.255.255.0
4.	pc3	10.20.30.1	255.255.255.0
5.	Router	10.20.30.3	

- **Create A LAN Network By Using Class A IP Address**.
- **Create a second LAN network using class C IP address**

- **Connect both of the network with the router.**

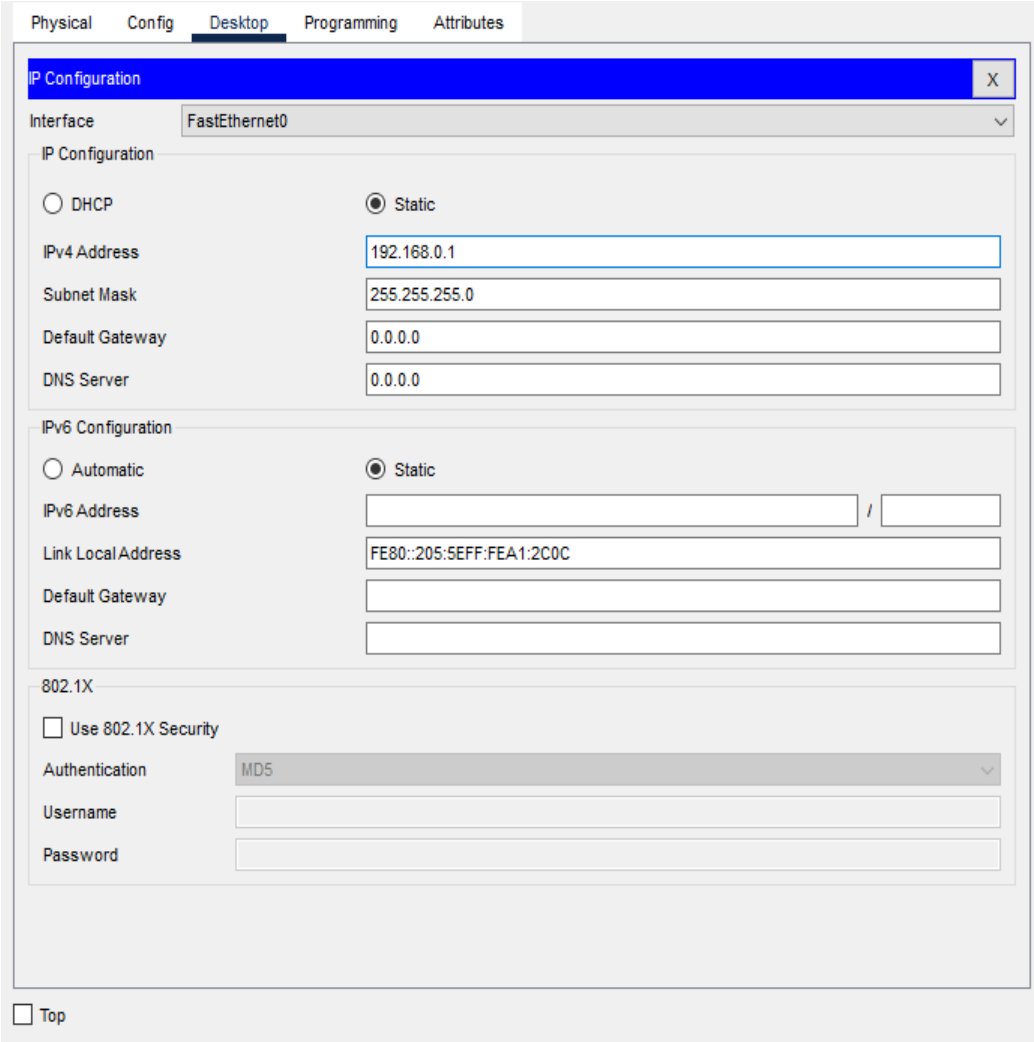


Step 2:-

Configure The Pcs (Hosts) With Ipv4 Address And Subnet Mask According To The IP Addressing Table Given Above.

- **To assign an IP address in PC0, click on PC0.**

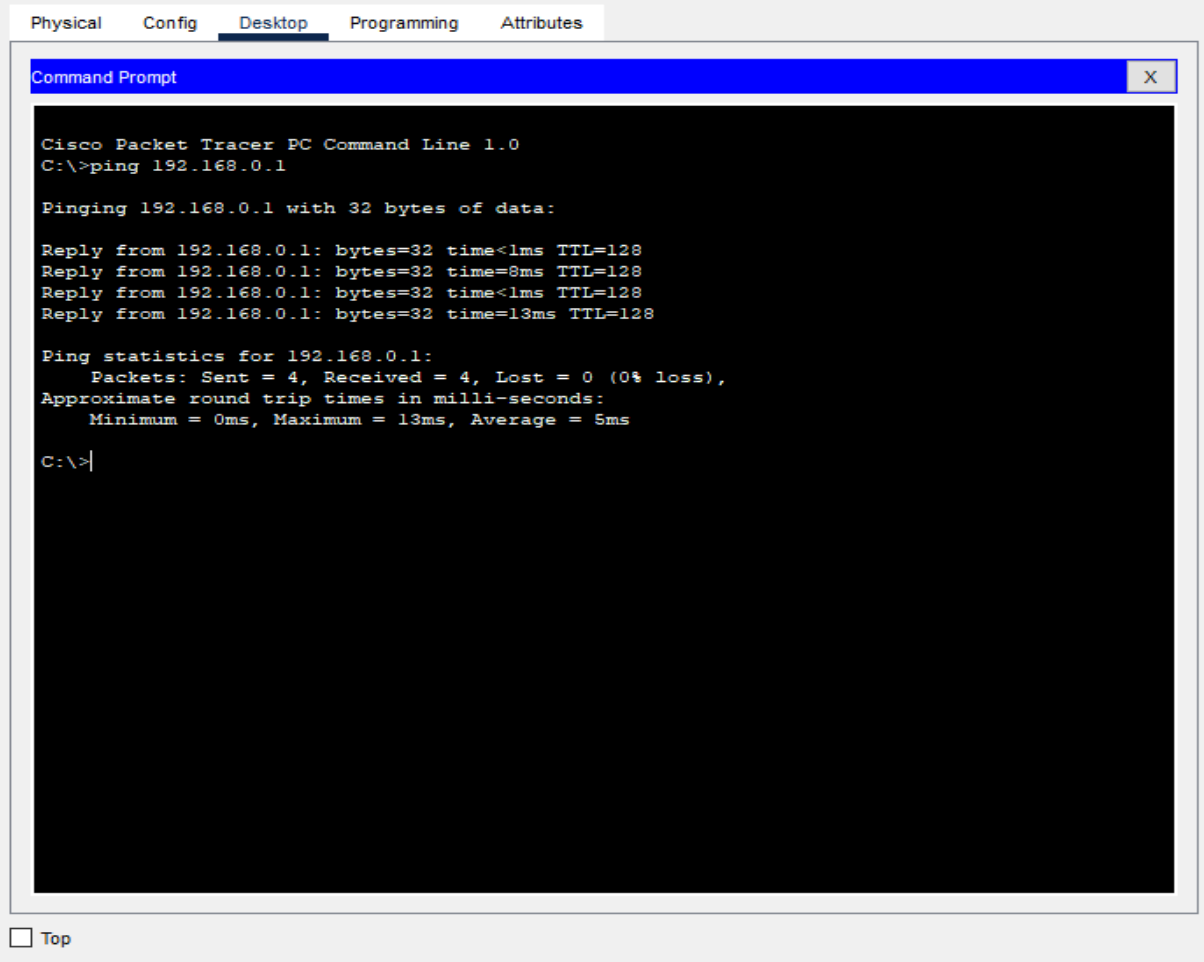
- **Then, go to desktop and IP configuration and there you will find IPv4 configuration.**
- **Add IPv4 address and subnet mask.**



Step 3.

Verify the connection by pinging the IP address of any host in PC0.

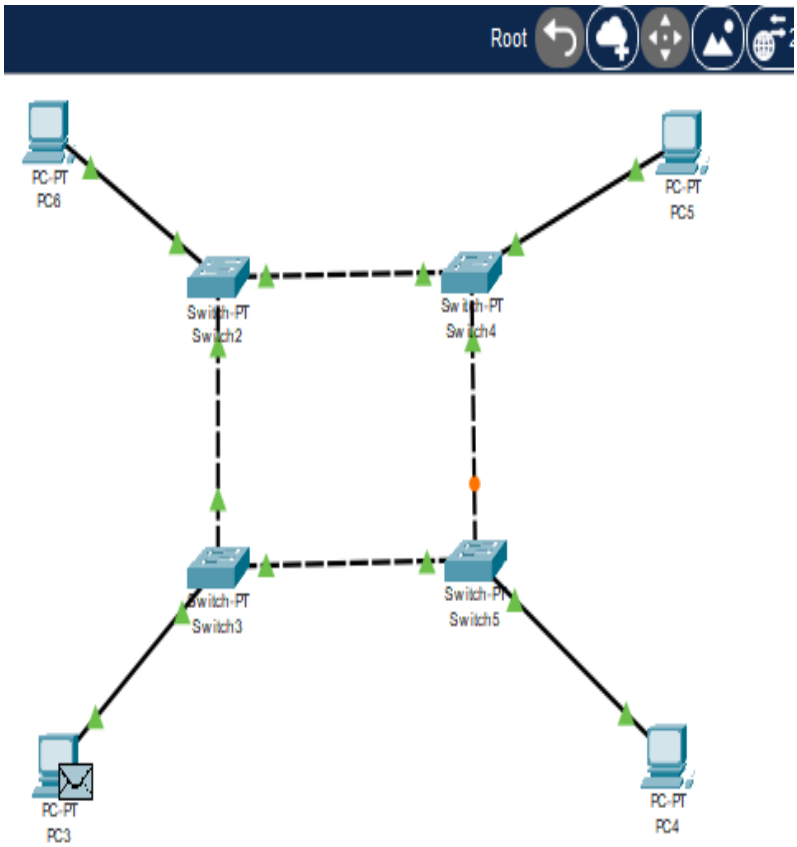
- **Use the ping command to verify the connection.**
- **We will check, if we are getting any replies or not.**
- **As we can see here getting replies from the targeted node on both PCs. Hence the connection is verified.**

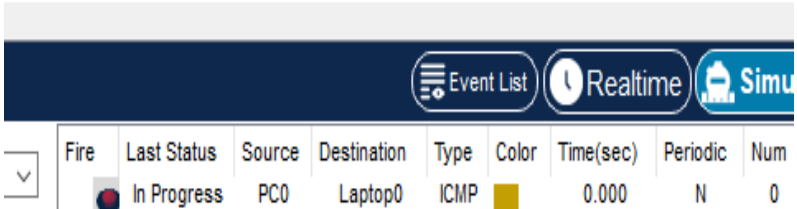


Step 4. A Simulation Of The Experiment Is Given Below We Have Sent Two PDU Packets One Targeted From PC0 To PC3.

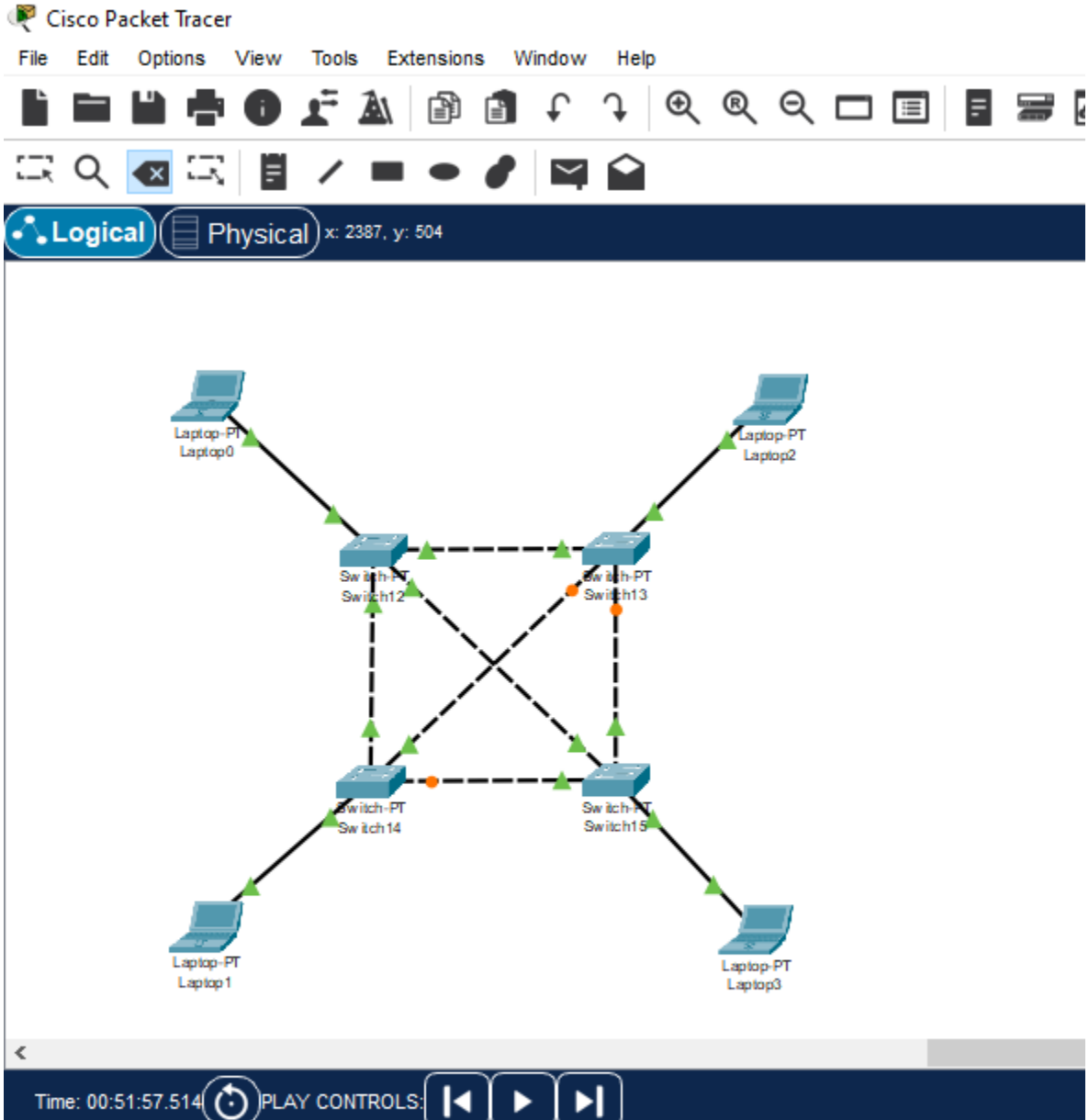
Q2. **Design a network consisting of ring, mess and tree topology using switch with network ID.**

- Ring topology:
- Forms a ring like structure.
- Token passing for communication.



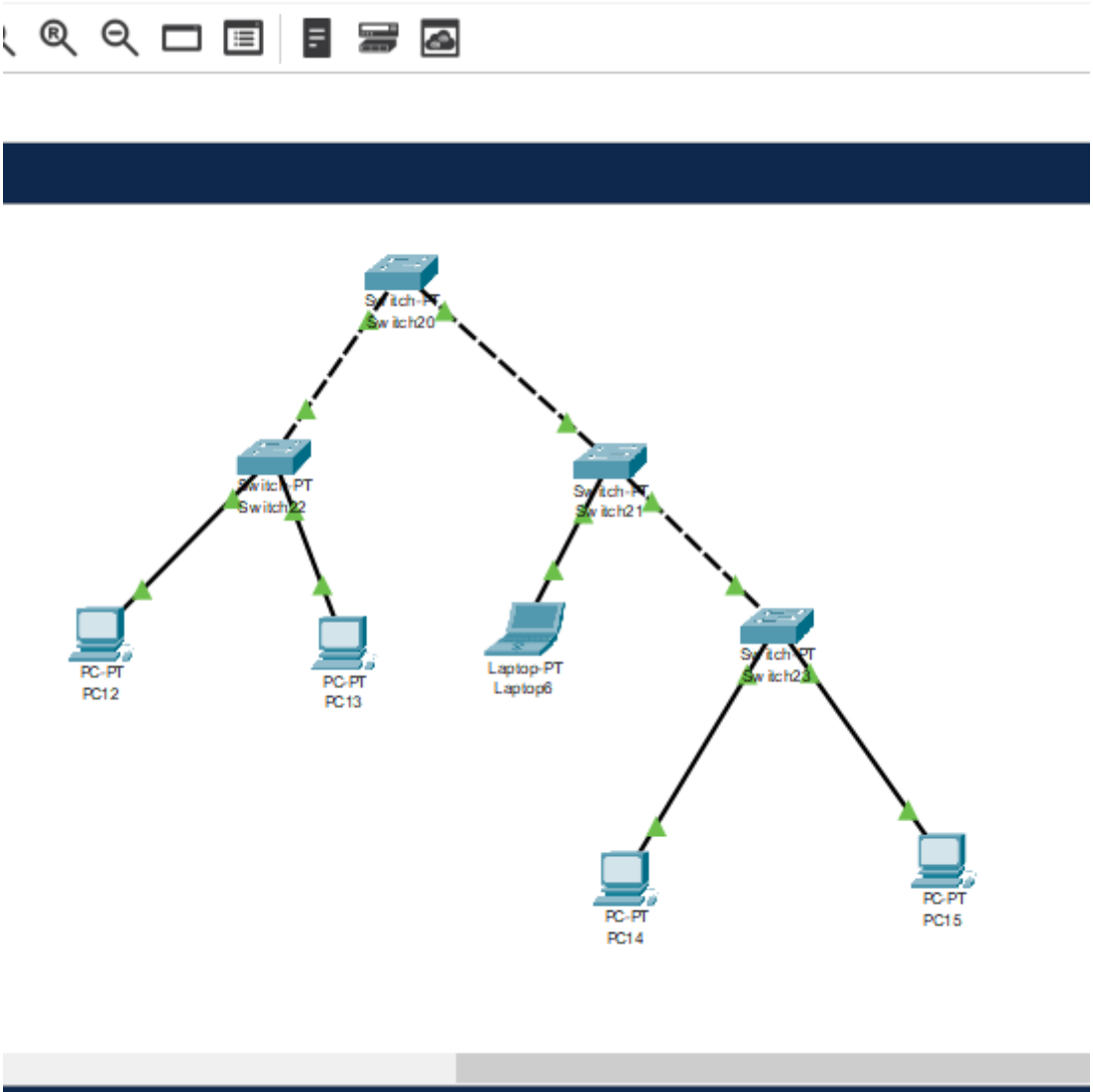


- **Mess Topology:**
- **All the nodes are connected with each other.**
- **Expensive to implement.**

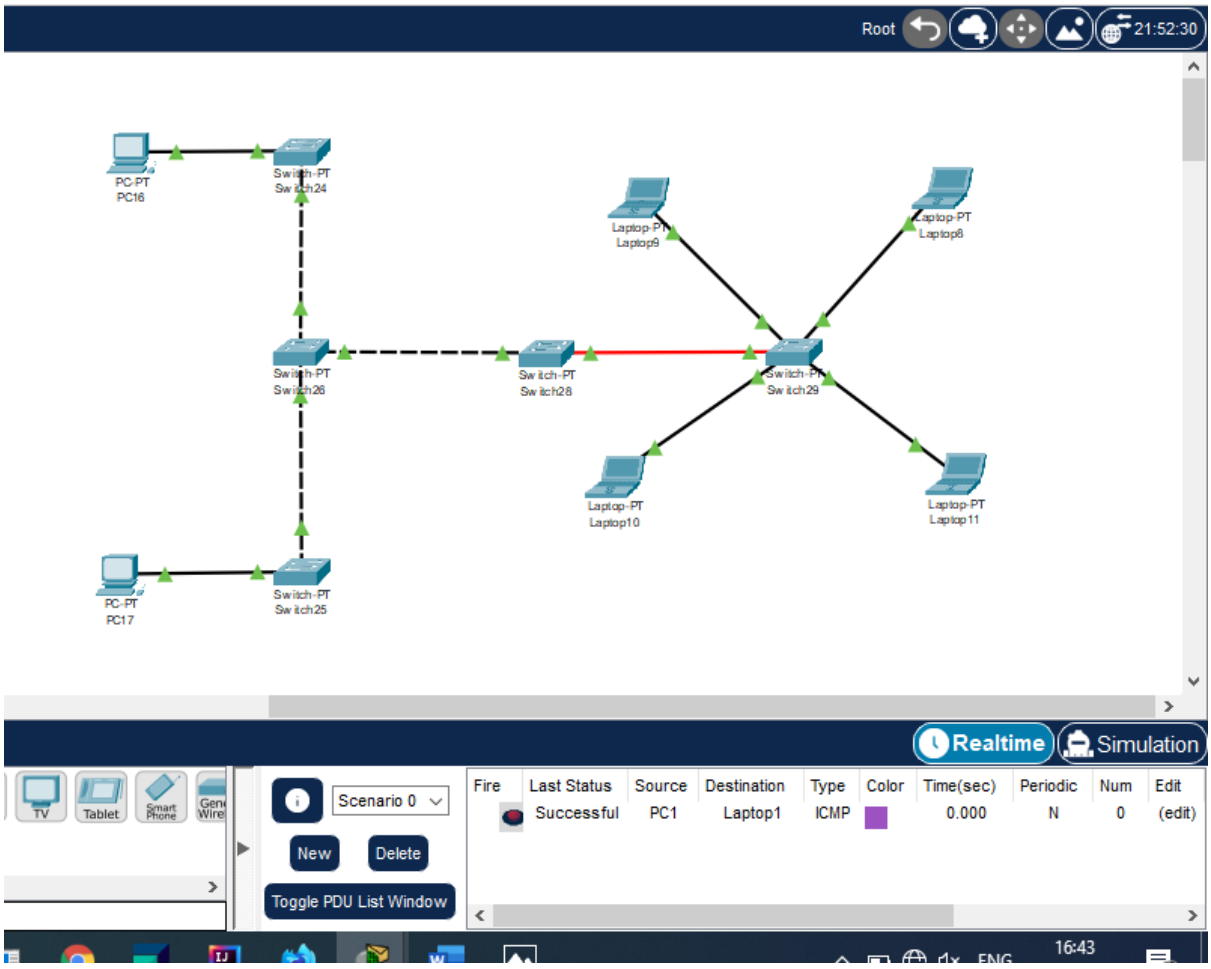


Tree toplogy: Create a hierarchy like structure.

- Two nodes are connected to one.



Q3. Consider and design lab1 and lab2 with star and bus topology respectively. Demonstrate how these labs will able to share data with each other in simulation mode.


Root
21:52:30
PC-PT
PC16
Switch-PT
Switch24
Laptop-PT
Laptop9
Laptop-PT
Laptop8
Switch-PT
Switch26
Switch-PT
Switch28
Switch-PT
Switch29
Laptop-PT
Laptop10
Laptop-PT
Laptop11
PC-PT
PC17
Switch-PT
Switch25
Realtime
Simulation
TV
Tablet
Smart Phone
Scenario 0
New
Delete
Toggle PDU List Window
Fire
Last Status
Source
Destination
Type
Color
Time(sec)
Periodic
Num
Edit
Successful
PC1
Laptop1
ICMP
0.000
N
0
(edit)
16:43