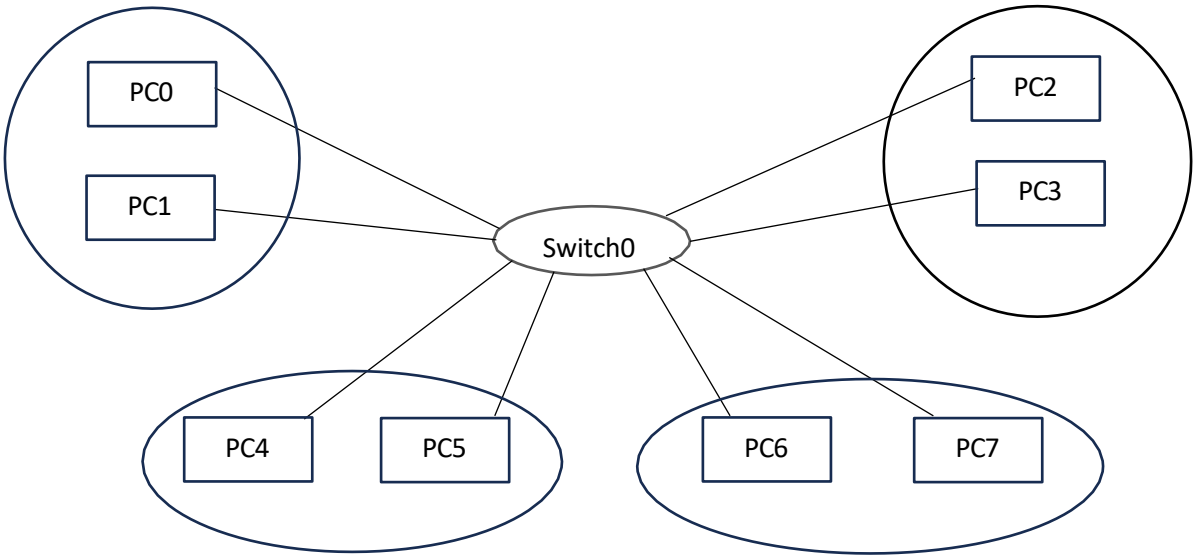
Register No:	**99220040530**
Name	**G.Madhu**
Class/Section	**8601 A/S06**
Ex. No:	**4**
Name of the Experiment	**Configuration of Intra VLAN network(Using One Switch)**
Google Drive link of the packet tracer file (give view permission):	https://drive.google.com/drive/u/3/folders/1924NZonTm8iFw1eQH0IFjT1eZEKSlsLb

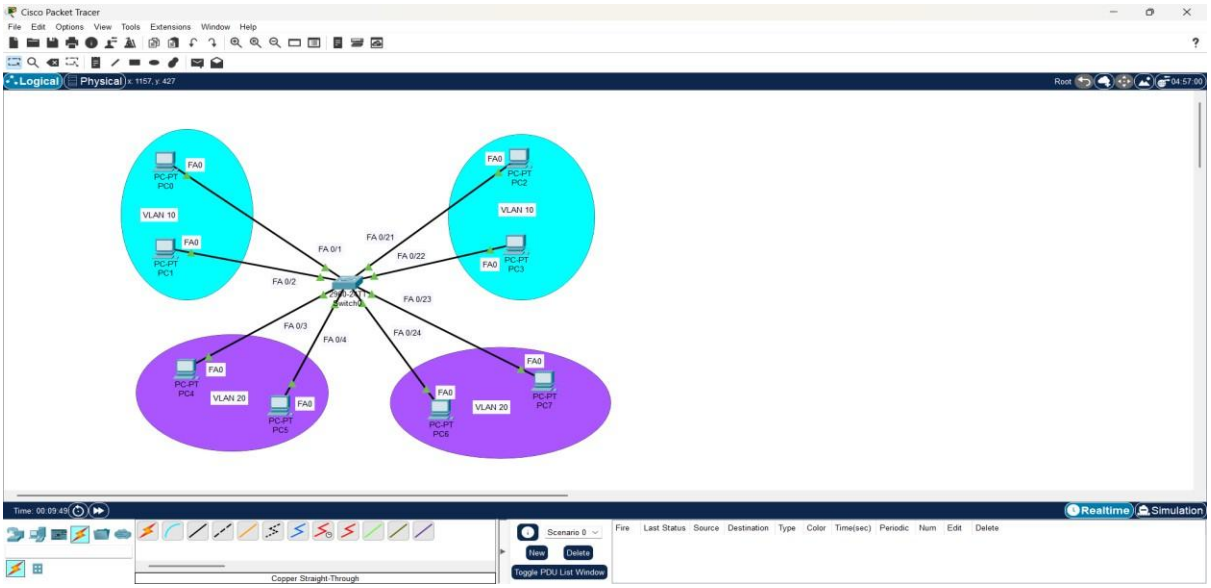
1. **Device Requirements:**

   1. Switch
   2. PC0
   3. PC1
   4. PC2
   5. PC3
   6. PC4
   7. PC5
   8. PC6
   9. PC7
   10. Wire

2. **Network Diagram for your experiment (draw the diagram either hand drawing/ms paint or any other drawing tools)**



3. Network Diagram (packet tracer diagram before configuration):



4. Configuration details:

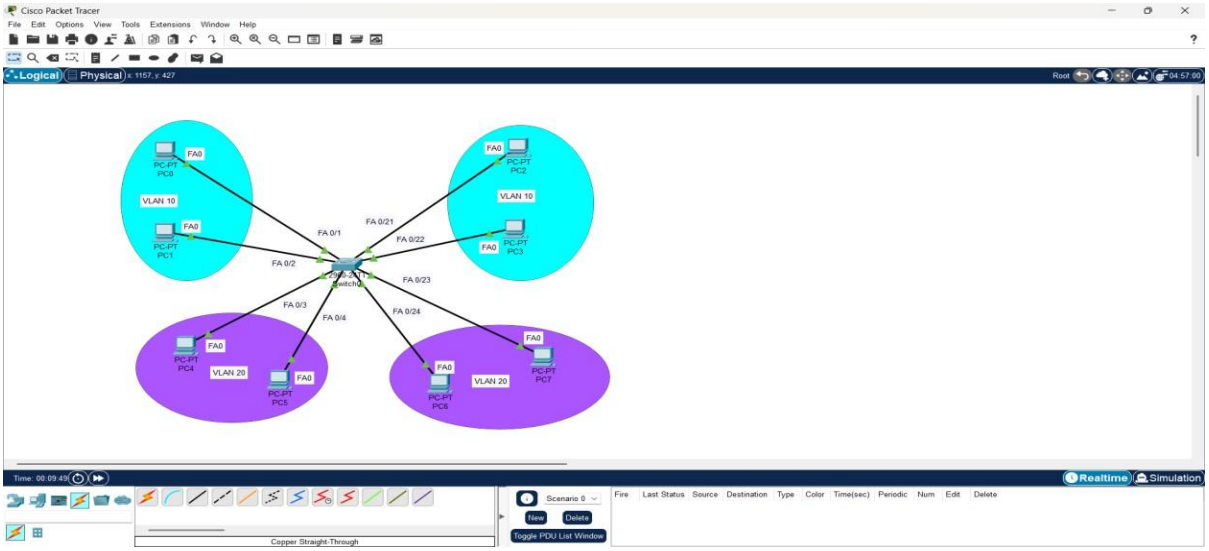
Device Name	Interface Name	IP Address	Subnet mask
PC0	Fa0/1	100.123.222.1	255.0.0.0
PC1	Fa0/2	100.123.222.2	255.0.0.0
PC2	Fa0/21	100.123.111.1	255.0.0.0
PC3	Fa0/22	100.123.111.2	255.0.0.0
PC4	Fa0/3	100.123.222.3	255.0.0.0
PC5	Fa0/4	100.123.222.4	255.0.0.0
PC6	Fa0/23	100.123.111.3	255.0.0.0
PC7	Fa0/24	100.123.111.4	255.0.0.0
Switch0	Fa0/3		

5. Describe step by step configuration steps properly (you may copy the commands used in the configuration tab and paste it.)

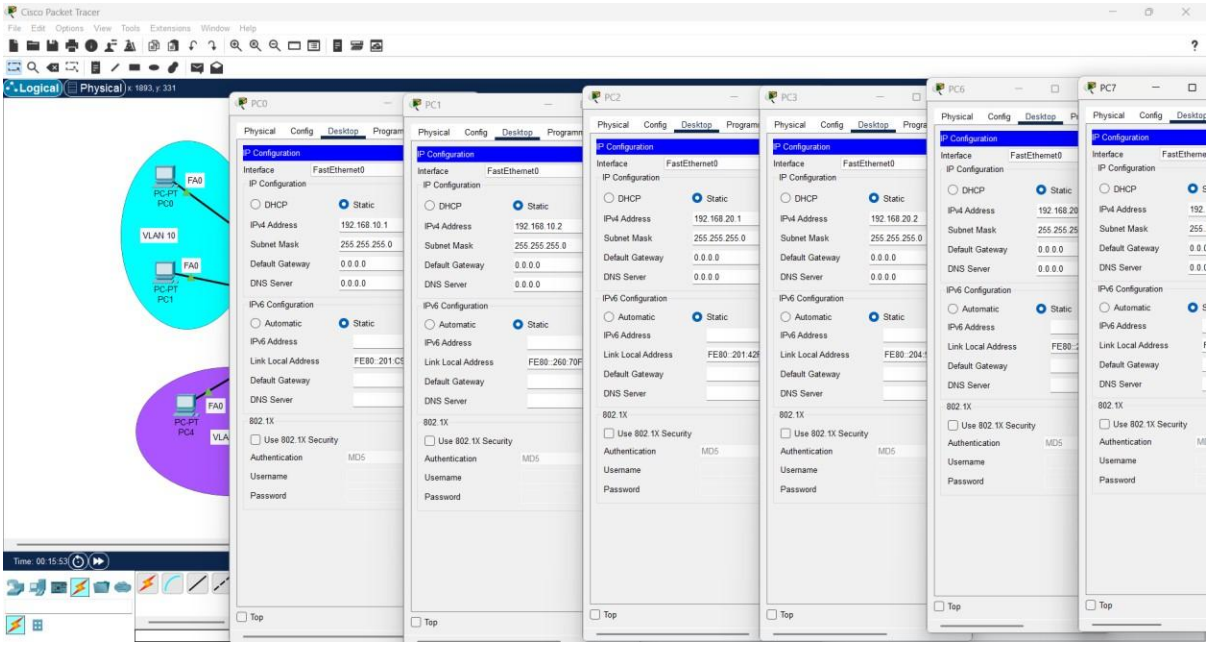
1. Create VLANs
2. Configure interfaces
3. Configure trunking
4. Ping

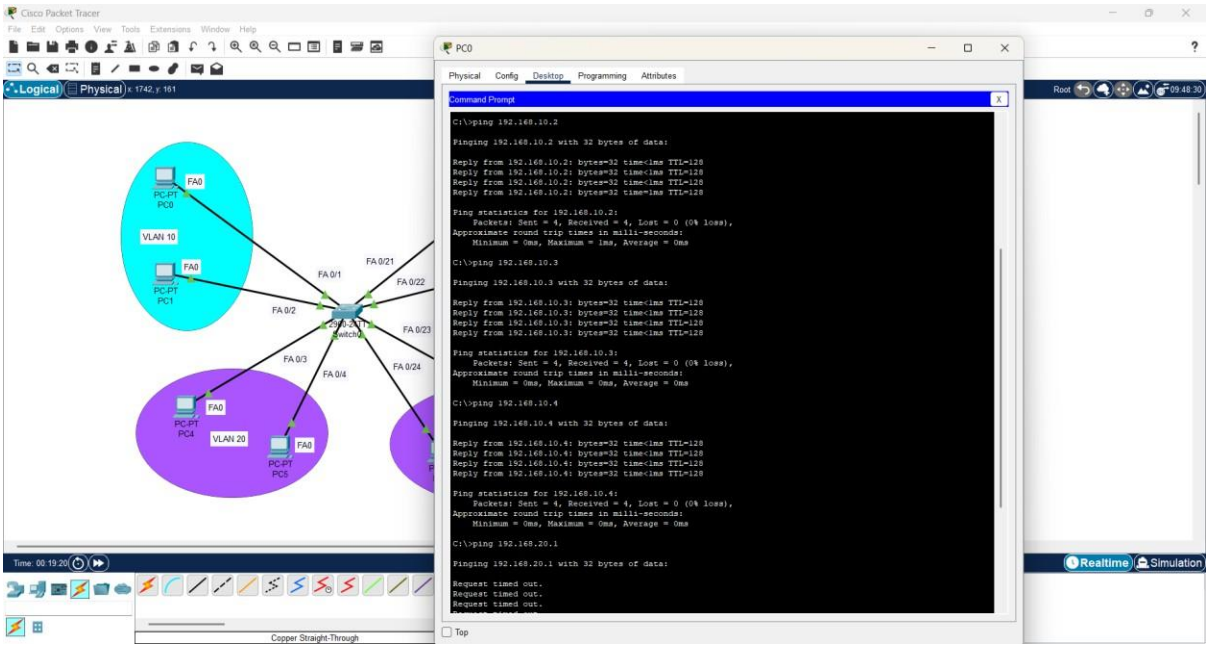
5. Configure Terminal
6. Do show vlan

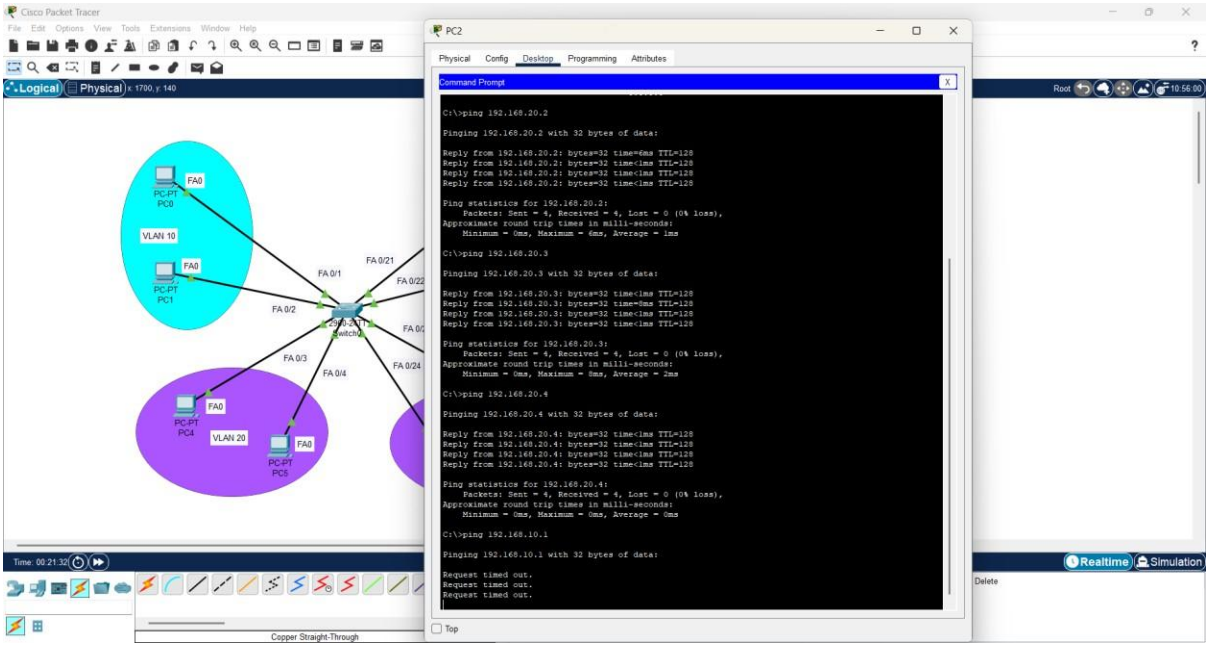
6. Output Diagram (Minimum 3 screenshot):



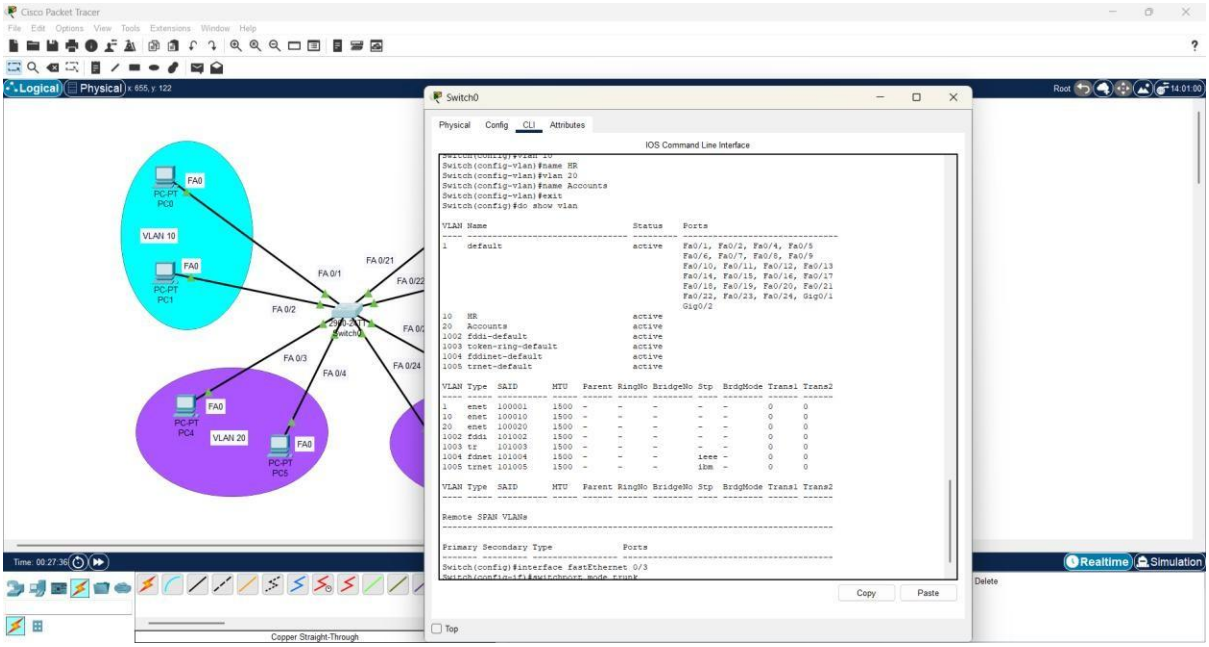
Network Diagram




Cisco Packet Tracer
PC0
Physical
Config
Desktop
Programming
Attributes
Command Prompt
C:\>ping 192.168.10.2
Pinging 192.168.10.2 with 32 bytes of data:
Reply from 192.168.10.2: bytes=32 time<1ms TTL=128
Reply from 192.168.10.2: bytes=32 time<1ms TTL=128
Reply from 192.168.10.2: bytes=32 time<1ms TTL=128
Reply from 192.168.10.2: bytes=32 time=1ms TTL=128
Ping statistics for 192.168.10.2:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 1ms, Average = 0ms
C:\>ping 192.168.10.3
Pinging 192.168.10.3 with 32 bytes of data:
Reply from 192.168.10.3: bytes=32 time<1ms TTL=128
Reply from 192.168.10.3: bytes=32 time<1ms TTL=128
Reply from 192.168.10.3: bytes=32 time<1ms TTL=128
Reply from 192.168.10.3: bytes=32 time<1ms TTL=128
Ping statistics for 192.168.10.3:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>ping 192.168.10.4
Pinging 192.168.10.4 with 32 bytes of data:
Reply from 192.168.10.4: bytes=32 time<1ms TTL=128
Reply from 192.168.10.4: bytes=32 time<1ms TTL=128
Reply from 192.168.10.4: bytes=32 time<1ms TTL=128
Reply from 192.168.10.4: bytes=32 time<1ms TTL=128
Ping statistics for 192.168.10.4:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>ping 192.168.20.1
Pinging 192.168.20.1 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Top
Logical
Physical
Root
Realtime
Simulation
VLAN 10
VLAN 20
PC-PT PC0
PC-PT PC1
PC-PT PC4
PC-PT PC5
FA0
FA 0/1
FA 0/2
FA 0/3
FA 0/4
FA 0/21
FA 0/22
FA 0/23
FA 0/24
Copper Straight-Through


Cisco Packet Tracer
PC2
Physical
Config
Desktop
Programming
Attributes
Command Prompt
C:\>ping 192.168.20.2
Pinging 192.168.20.2 with 32 bytes of data:
Reply from 192.168.20.2: bytes=32 time=6ms TTL=128
Reply from 192.168.20.2: bytes=32 time<1ms TTL=128
Reply from 192.168.20.2: bytes=32 time<1ms TTL=128
Reply from 192.168.20.2: bytes=32 time<1ms TTL=128
Ping statistics for 192.168.20.2:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 6ms, Average = 1ms
C:\>ping 192.168.20.3
Pinging 192.168.20.3 with 32 bytes of data:
Reply from 192.168.20.3: bytes=32 time<1ms TTL=128
Reply from 192.168.20.3: bytes=32 time=8ms TTL=128
Reply from 192.168.20.3: bytes=32 time<1ms TTL=128
Reply from 192.168.20.3: bytes=32 time<1ms TTL=128
Ping statistics for 192.168.20.3:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 8ms, Average = 2ms
C:\>ping 192.168.20.4
Pinging 192.168.20.4 with 32 bytes of data:
Reply from 192.168.20.4: bytes=32 time<1ms TTL=128
Reply from 192.168.20.4: bytes=32 time<1ms TTL=128
Reply from 192.168.20.4: bytes=32 time<1ms TTL=128
Reply from 192.168.20.4: bytes=32 time<1ms TTL=128
Ping statistics for 192.168.20.4:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms
C:\>ping 192.168.10.1
Pinging 192.168.10.1 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Top
Logical
Physical
Root
Realtime
Simulation
Delete
VLAN 10
VLAN 20
PC-PT PC0
PC-PT PC1
PC-PT PC4
PC-PT PC5
FA0
FA 0/1
FA 0/2
FA 0/3
FA 0/4
FA 0/21
FA 0/22
FA 0/24
Copper Straight-Through

Assigning IP Address



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CONCLUSION:

Configuring an intra-VLAN network is a foundational practice in modern network design, providing security, efficiency, and manageability. It empowers organizations to create logical, scalable, and secure networks tailored to specific operational requirements.

Rubrics for Experiment Assessment:

Rubrics	Good	Normal	Poor	Marks
Creation of Topology (4)	Created the topology, Identify the proper devices and making the connections **(4)**	Created the topology, Identify the proper devices, making the connections But missing some features **(3)**	Created wrong topology, Failed to Identify the proper devices and making connections **(1)**	
Verify the connectivity (4)	Verified the connectivity in all the levels **(4)**	Verified the connectivity at some levels (only some nodes) **(2)**	Verified the connectivity is not done. **(1)**	
Timely Completion (2)	Completed the lab before the allotted time **(2)**	Completed the lab after the deadline **(1)**	Did not submitted before grading **(0)**	
Total				

Result: Thus the Design a Configuration of Intra VLAN network has been done successfully.