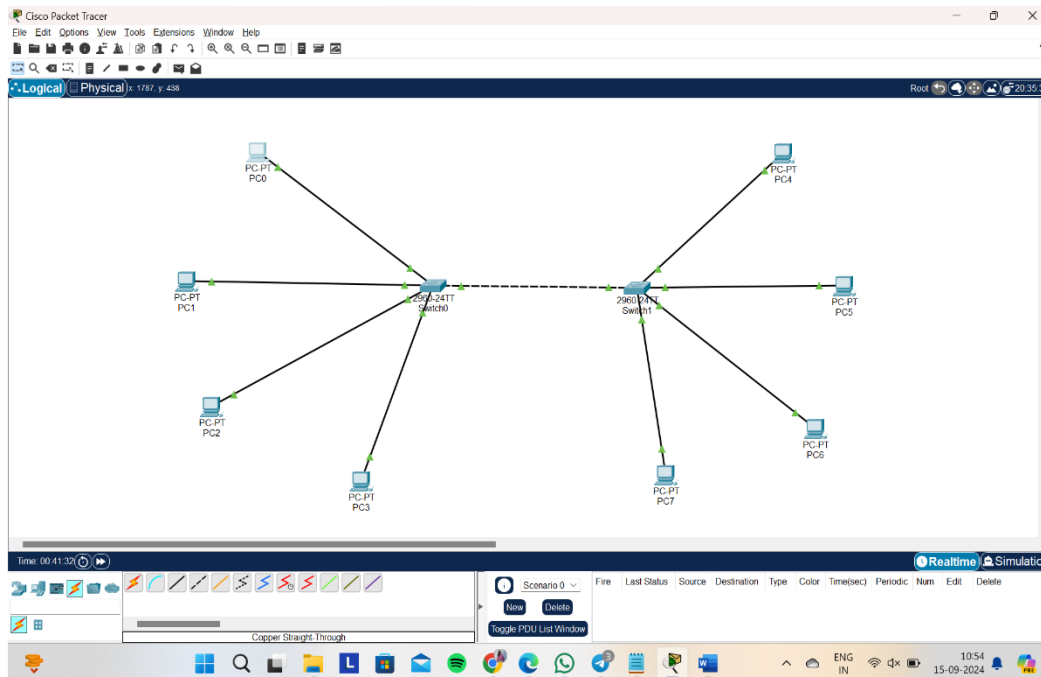


Exp.no-4:Construction of Different VLANS and TRUNKING using cisco packet tracer

Diagram:



Output:

```
Command Prompt

Cisco Packet Tracer PC Command Line 1.0
C:\>ping 192.168.10.1

Pinging 192.168.10.1 with 32 bytes of data:

Reply from 192.168.10.1: bytes=32 time<1ms TTL=128
Reply from 192.168.10.1: bytes=32 time=8ms TTL=128
Reply from 192.168.10.1: bytes=32 time<1ms TTL=128
Reply from 192.168.10.1: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.10.1:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 8ms, Average = 2ms

C:\>ping 192.168.10.2

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:\>
```

1. **Create a New Project:** Began a new project and arranged the networking devices (routers, switches, and computers) as shown in the provided network diagram.
2. **Configure IP Addresses:** Assigned appropriate IP addresses and subnet masks to each device according to VLAN design.
3. **Set Up VLANs:**
 - Accessed the switch's command line interface (CLI).
 - Create VLANs using the vlan command.
 - Assigned ports to the respective VLANs using the switchport access vlan command.
4. **Configure Trunking:**
 - On the switches, configure trunk ports to allow traffic from multiple VLANs to pass through.
 - Used the switchport mode trunk command to set the ports to trunk mode.
5. **Test Connectivity:**
 - Used the ping command from different computers to test connectivity across VLANs.
 - Verified that devices within the same VLAN can communicate with each other.
 - Ensured that devices in different VLANs cannot communicate unless routing is set up between them.
6. **Verify Results:** Check the output of your ping tests to confirm successful communication within VLANs and proper isolation between different VLANs.