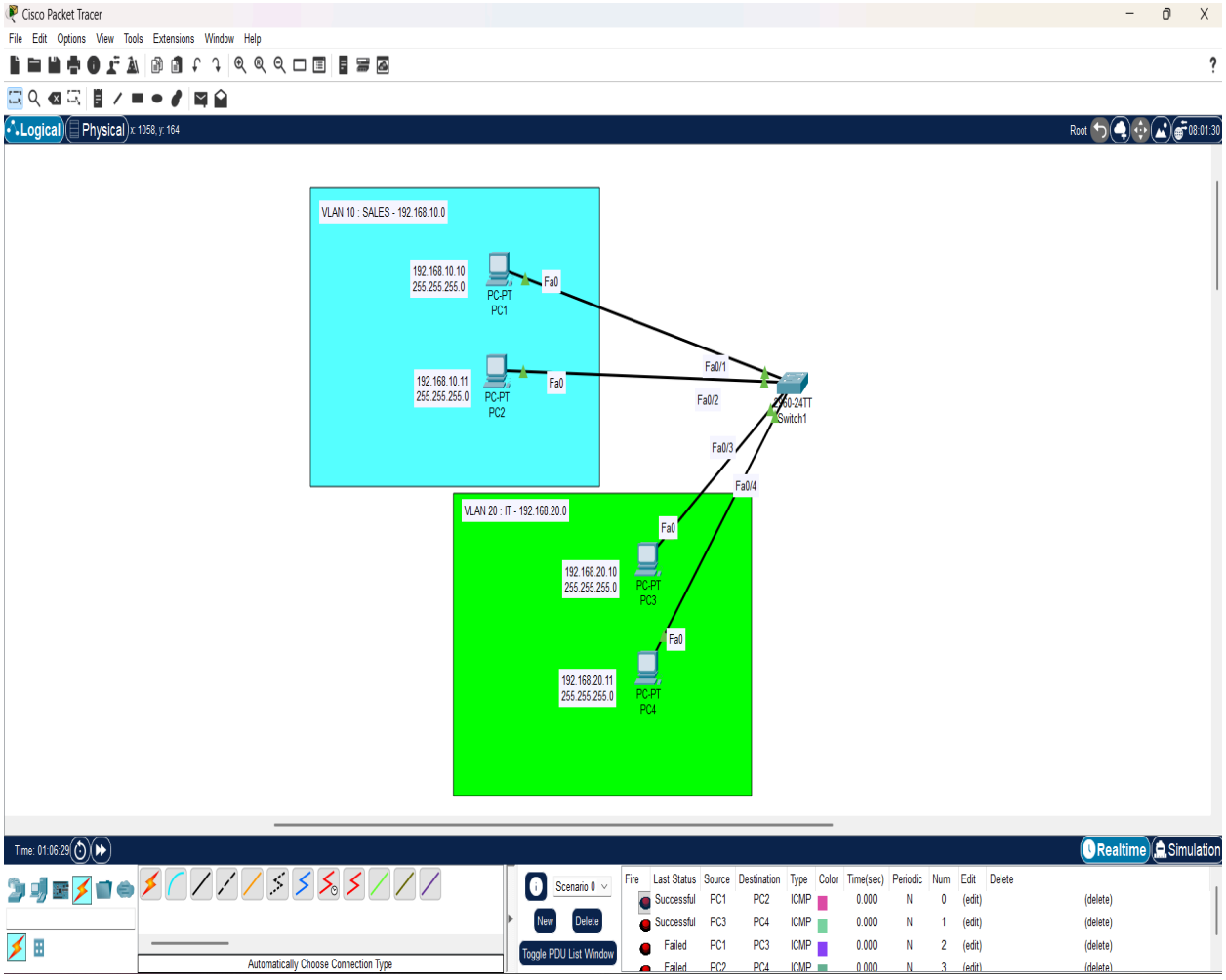
Lab 06 – VLANs

Objective:

To configure VLANs on a switch to logically separate devices and test network isolation.

Topology:

Single switch with four PCs assigned to two VLANs (VLAN 10 and VLAN 20).



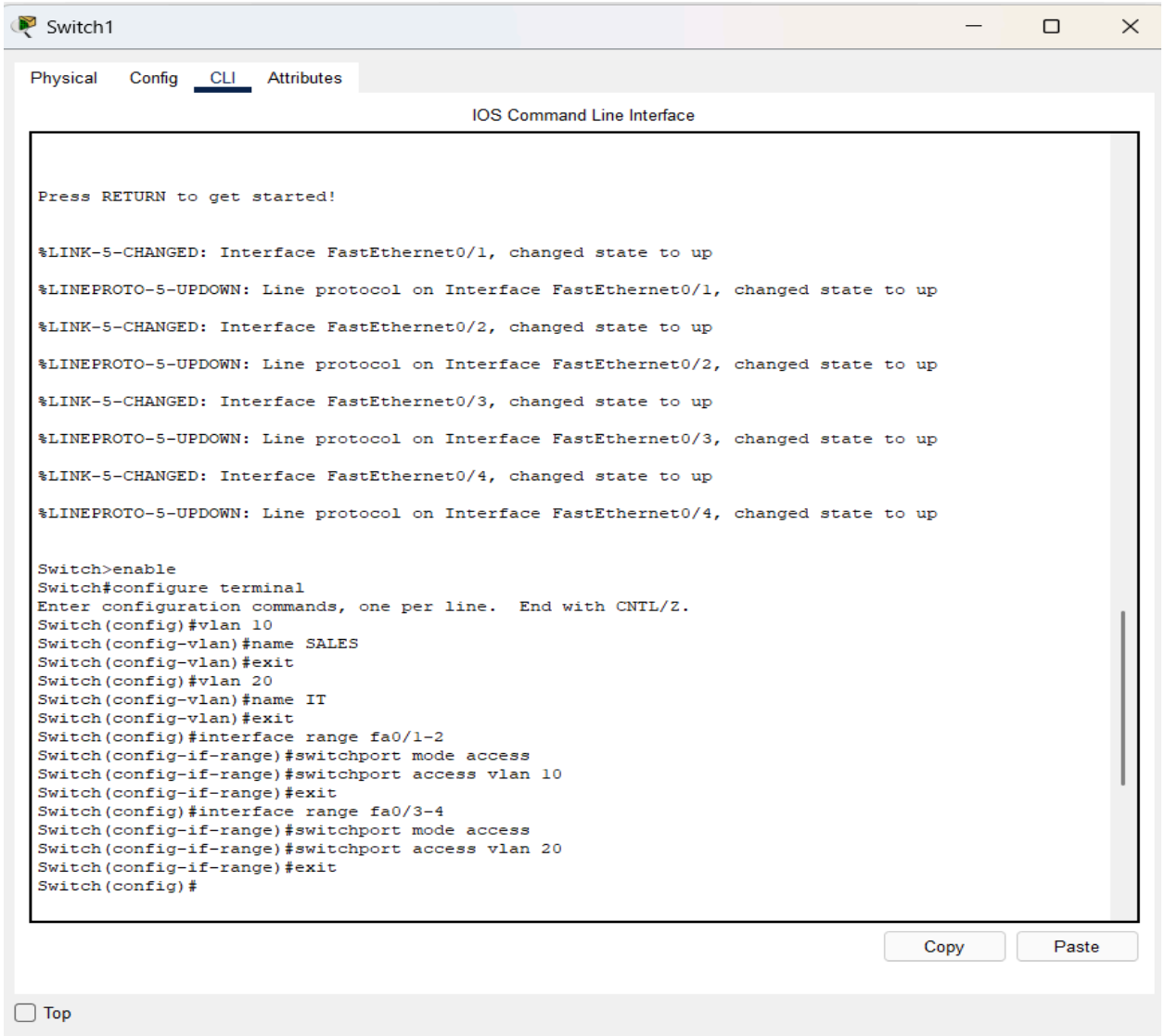
VLAN Design:

VLAN 10 (SALES): PC1, PC2
VLAN 20 (IT): PC3, PC

IP Addressing:
VLAN 10:
PC1 – 192.168.10.10/24
PC2 – 192.168.10.11/24

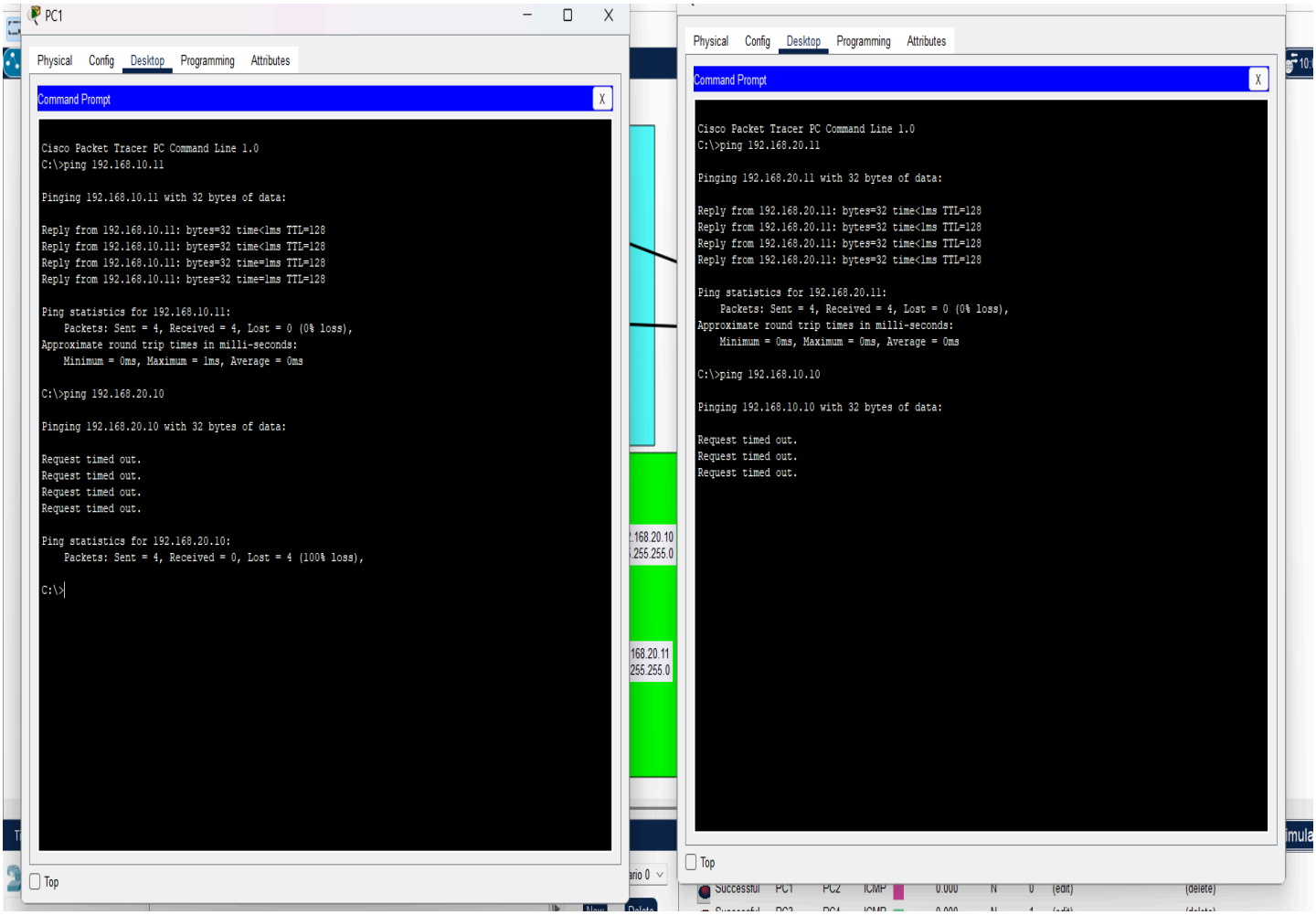
VLAN 20:
PC3 – 192.168.20.10/24
PC4 – 192.168.20.11/24

Switch Configuration Summary:
- Created VLAN 10 and VLAN 20
- Assigned access ports to respective VLANs
- (Optional) Configured trunk port for multi-switch connectivity



Verification:

- Devices in the same VLAN can communicate
- Devices in different VLANs cannot communicate



Lessons Learned:

- VLANs logically segment a network
- VLANs reduce broadcast traffic
- Trunk ports carry traffic for multiple VLANs