**VLAN Steps:**

1. Create topology → Place one switch and multiple PCs in Packet Tracer and connect them using copper straight-through cables.
2. Assign IPs → Configure each PC with an IP address according to its VLAN subnet

(e.g., VLAN10 → 192.168.10.x, VLAN20 → 192.168.20.x).

1. Create VLANs → On the switch CLI, define VLAN IDs and assign names (e.g., vlan 10 name HR, vlan 20 name Sales).
2. Assign ports → Configure switch interfaces as access ports and assign them to the appropriate VLAN (e.g., Fa0/1–2 → VLAN10, Fa0/3–4 → VLAN20).
3. Verify VLANs → Use show vlan brief to confirm VLAN creation and correct port assignments.
4. Test connectivity → Ping between PCs in the same VLAN should succeed, while pinging across VLANs should fail without routing.
5. Enable inter-VLAN (optional) → Configure router sub-interfaces or a Layer 3 switch to allow communication between different VLANs.