Here's a concise lab report for "VLAN Normal and Trunk Between PCs" in Cisco Packet Tracer, structured according to your specified format:

Lab Report: VLAN Normal and Trunk Configuration Between PCs in Cisco Packet Tracer

Title

VLAN Normal and Trunk Configuration Between PCs in Cisco Packet Tracer

Objective

To configure normal VLANs and trunking between switches to enable communication between PCs across different VLANs.

Equipment

- Cisco Packet Tracer Software
- 2 Switches (Switch0, Switch1)
- 2 PCs (PC0, PC1)
- Copper Straight-Through Ethernet Cables

Theory

VLANs (Virtual Local Area Networks) segment networks into different broadcast domains, improving security and performance. Trunking allows multiple VLANs to be carried over a single link between switches.

Procedure

1. **Open Cisco Packet Tracer:** Launch the Cisco Packet Tracer application.
2. **Create the Topology:**
    - Drag and drop 2 switches and 2 PCs onto the workspace.
3. **Connect Devices:**
    - Use Straight-through Ethernet cables to connect:
        - PC0 to Switch0.
        - PC1 to Switch1.
        - Connect Switch0 to Switch1 using another cable.
4. **Create VLANs:**
    - On Switch0:
        - Select the switch → **Config** tab → **VLAN Database**.
        - Create VLAN 10 (Name: Sales) and VLAN 20 (Name: HR).
    - On Switch1:
        - Repeat the same steps to create VLAN 10 (Sales) and VLAN 20 (HR).
5. **Assign VLANs to Ports:**
    - On Switch0:
        - Assign PC0's port to VLAN 10.
    - On Switch1:
        - Assign PC1's port to VLAN 20.

6. **Configure Trunking:**
    - On Switch0:
        - Go to **FastEthernet0/24** (the port connecting to Switch1).
        - Set the port mode to **Trunk** to allow VLAN traffic.
    - On Switch1:
        - Repeat for **FastEthernet0/24** (the port connecting to Switch0).
7. **Assign IP Addresses:**
    - **PC0 (VLAN 10):**
        - IP: 192.168.10.2, Subnet Mask: 255.255.255.0, Gateway: 192.168.10.1.
    - **PC1 (VLAN 20):**
        - IP: 192.168.20.2, Subnet Mask: 255.255.255.0, Gateway: 192.168.20.1.
8. **Verify Configuration:**
    - Use the simulation mode to observe frames being sent between PCs.
    - Confirm that packets are routed correctly between VLANs through the trunk link.

Results

Successful communication between PC0 and PC1 indicates that VLANs and trunking are configured correctly, allowing traffic to flow between different VLANs.

Conclusion

This lab demonstrated the configuration of normal VLANs and trunking in Cisco Packet Tracer, successfully enabling communication between PCs in different VLANs.

Feel free to customize any specific details or numbers as necessary for your lab report!