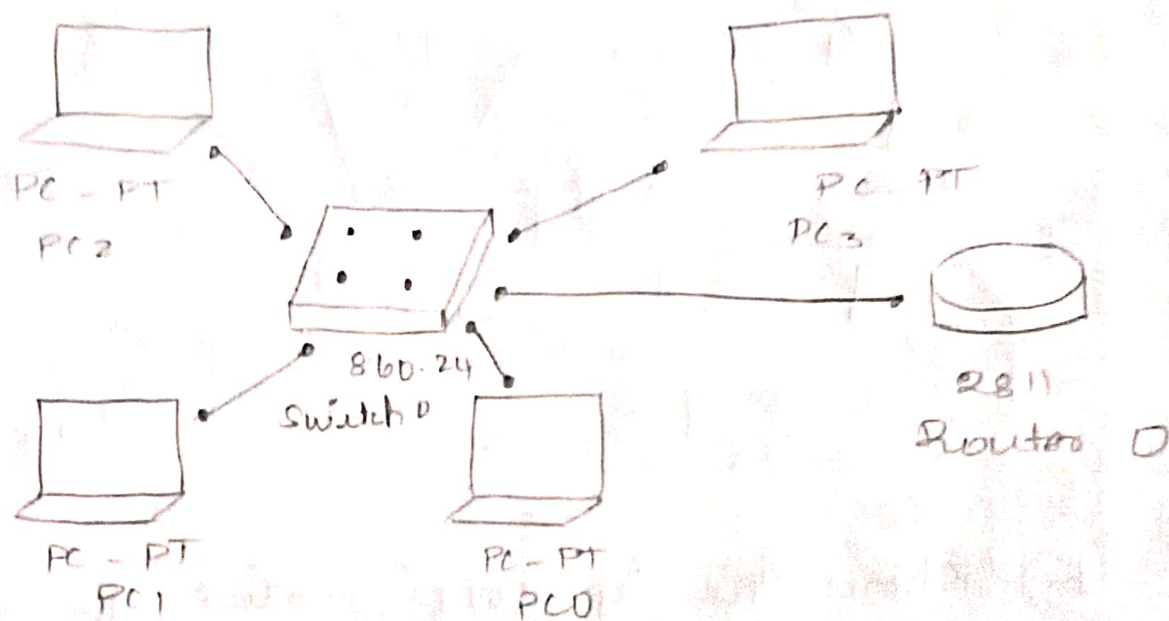


Aim:

Simulate virtual LAN configuration using CISCO packet tracer simulation.

Packet tracer - configure VLANs and trunking.



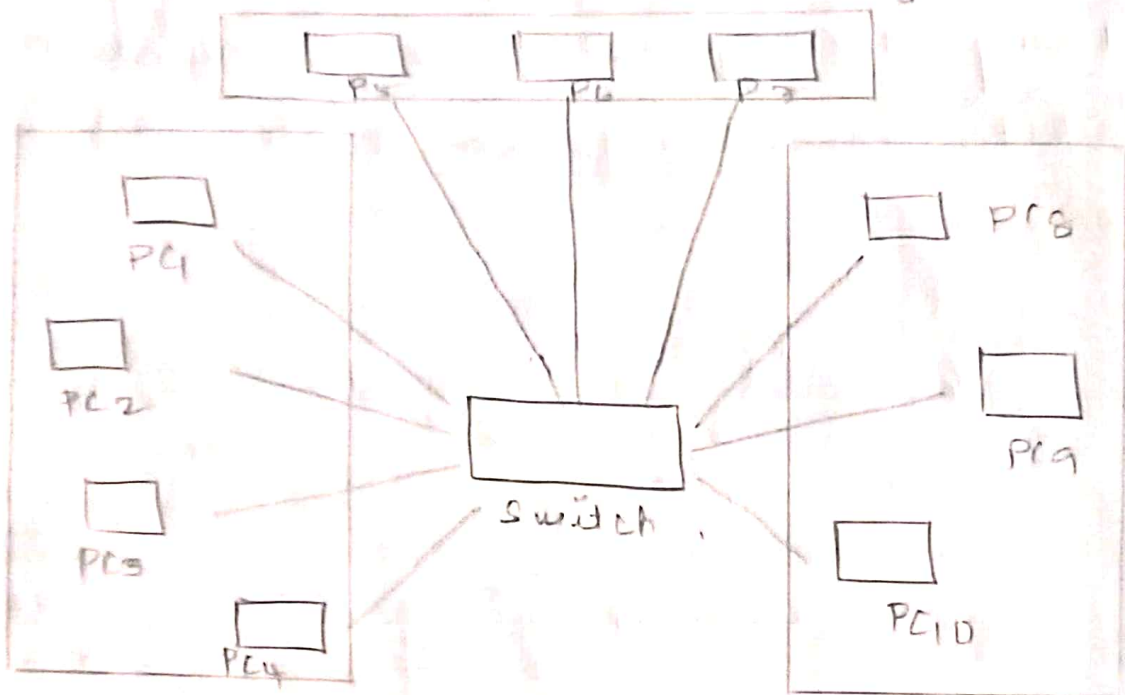
Reflection Questions:

1. What is needed to allow hosts on VLAN 10 to communicate to hosts on VLAN 99?

you need a layer 3 device (router or layer 3 switch) to enable inter-VLAN routing, and configure VLAN routing and configure VLAN interfaces with IP addresses for both VLAN's. Ensure that ACLs allow traffic between the VLANs and that hosts are set the appropriate default gateways.
2. What are some primary benefits that an organisation can receive through effective use of VLANs?

Effective use of VLANs improves network segmentation enhancing security and reducing broadcast traffic.

a.) Draw and label the VLAN for Qb)



b.) Show the ip configuration for each device.

Device	IP address	subnet mask	Default gateway
PC ₁	192.168.20.2	255.255.255.0	192.168.20.1
PC ₂	192.168.20.3	255.255.255.0	192.168.20.1
PC ₃	192.168.20.4	255.255.255.0	192.168.20.1
PC ₄	192.168.20.5	255.255.255.0	192.168.20.1
PC ₅	192.168.20.6	255.255.255.0	192.168.20.1
PC ₆	192.168.20.7	255.255.255.0	192.168.20.1
PC ₇	192.168.20.8	255.255.255.0	192.168.20.1
PC ₈	192.168.20.9	255.255.255.0	192.168.20.1
PC ₉	192.168.20.10	255.255.255.0	192.168.20.1
PC ₁₀	192.168.20.11	255.255.255.0	192.168.20.1

C. write the commands used for VLAN config in switch.

```
Switch > enable
Switch # configure terminal
Switch (config) # VLAN 10
Switch (config-vlan) # name Robotics
Switch (config-vlan) # exit
Switch (config) # interface range 0/1-10
Switch (config-if-range) # switchport mode access
Switch (config-if-range) # switchport access vlan 10
Switch (config-if-range) # exit.
```

Result :

Thus, the simulation of virtual LAN configuration using Cisco packet-tracer has been performed and the o/p is verified.

19/11

Ex: no: 8b

Date: 7.10.24

configuration of Wireless LAN.

Aim:

configuration of wireless LAN using Cisco packet tracer.

a.) What is SSID of a wireless source?

SSID (Service Set Identifier) is the name of a wireless network. It is used to uniquely identify a wireless LAN.

b.) What is a security key in a wireless router?

A security key is a wireless router password or encryption key used to secure a wireless network.

Result:

Thus, a wireless LAN has been configured using Cisco packet tracer and the IP is verified.