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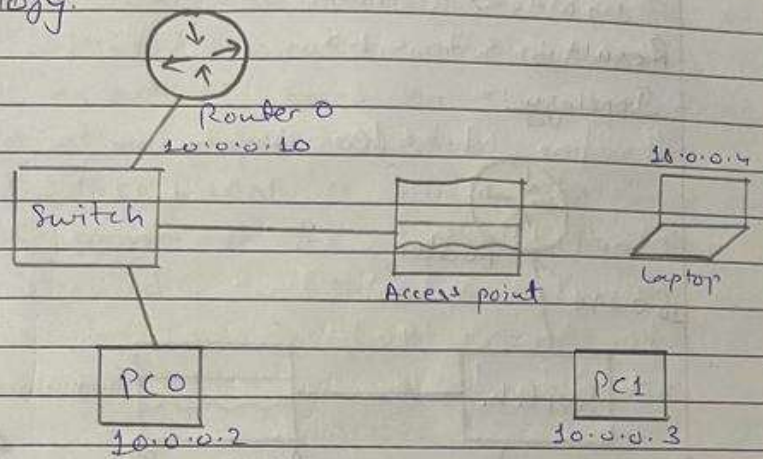
Experiment - 12

Aim: To construct a WLAN and make the nodes communicate wirelessly.

Topology:



Procedure:

1.) Construct the above topology. Use access point-PT connect it to router. Set the IP address of the PC connected with wire and configure router1.

2.) Configure access point → port 1 → SSID name → WLAN.
Select WEP and give any 10 digit key (here 1234567890)

3.) To configure PC0 and laptop wirelessly, switch off the device. Drag the existing PT-HOST-NM-1AM to the component listed in the LHS. Drag WMP300N wirelessly interface to the empty port and switch on the device.

4.) Now, in the config tab, a new wireless interface would have been added. Configure SSID, WEP, WEP key, IP address & gateway to the device.

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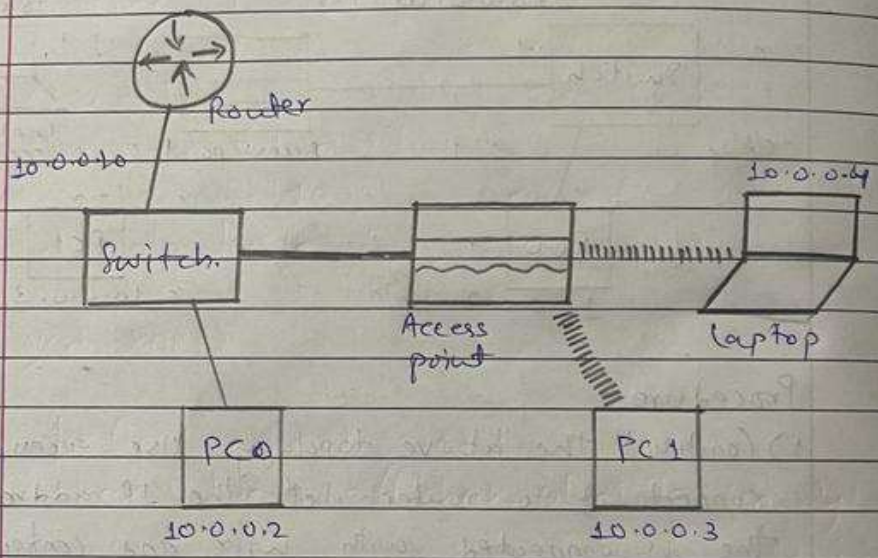
Router > enable
config t
interface fastethernet 0/0
ip address 10.0.0.10 255.0.0.0
no shut.

Result :-

Topology :-



Result (in PC0).

PC> ping 10.0.0.3

Pinging 10.0.0.3 with 32 bytes of data:

Reply from 10.0.0.3: bytes = 32 time = 21ms TTL = 128
Reply from 10.0.0.3: bytes = 32 time = 13ms TTL = 128
Reply from 10.0.0.3: bytes = 32 time = 6ms TTL = 128
Reply from 10.0.0.3: bytes = 32 time = 0ms TTL = 128

Ping statistics for 10.0.0.3
Packets: Sent = 4, Received = 4, Lost = 0

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Approximate roundtrip time in milliseconds
Minimum = 6ms, Maximum = 21 ms, Average = 12ms.

Observation

1.) Wireless local area network, WLAN is a group of alocated computers or other devices that form a network based on radio transmission rather than wired connections.

2.) After the WLAN is setup, the lined connection appears in the topology from the access point.