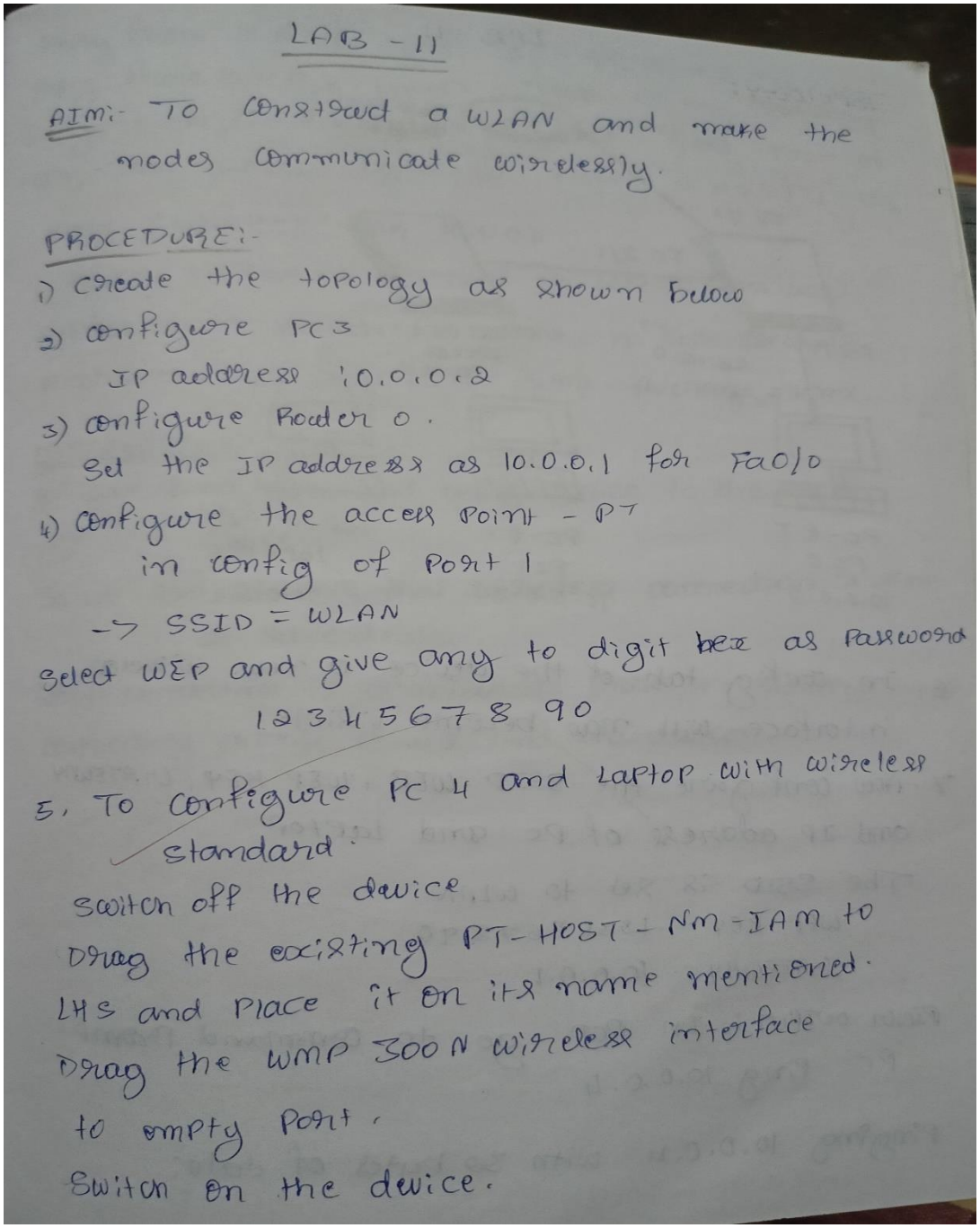
LAB 11

To construct a WLAN and make the nodes communicate wirelessly

OBSERVATION:



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

PROCEDURE:-

1) Create the topology as shown below
2) configure PC3
   IP address : 10.0.0.2
3) configure Router 0.
   Set the IP address as 10.0.0.1 for Fa0/0
4) Configure the access Point - PT
   in config of Port 1
   -> SSID = WLAN
Select WEP and give any 10 digit hex as Password
   1234567890
5. To configure PC 4 and Laptop with wireless standard.
   Switch off the device.
   Drag the existing PT-HOST-NM-1AM to LHS and Place it on its name mentioned.
   Drag the WMP 300N wireless interface to empty Port.
   Switch on the device.

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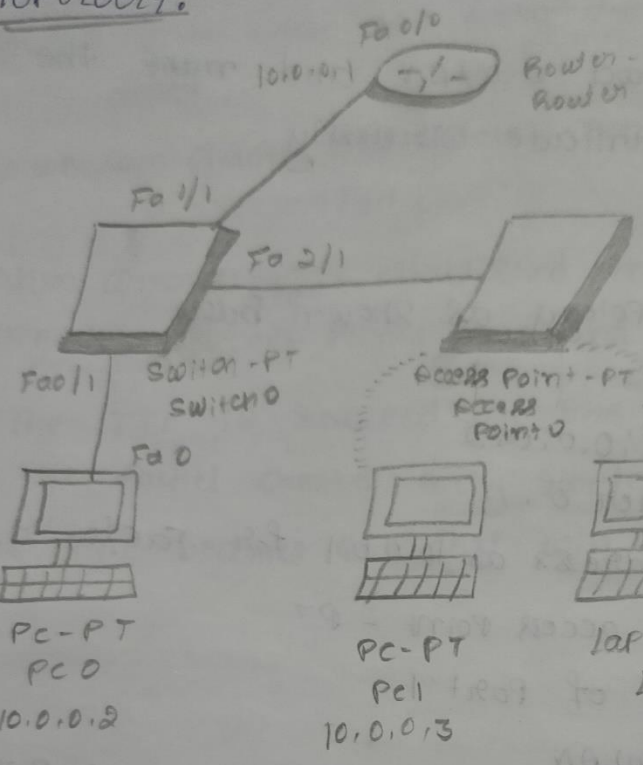
TOPOLOGY:-



6. In config tab of the device a new wireless interface will now become visible.

7. Now configure the SSID, WEP, WEP KEY, GATEWAY and IP address of Pc and Laptop

The SSID is set to WLAN

WEP KEY = 1234567890

GATEWAY = 10.0.0.1

PING OUTPUT :- In PC0 go to Command Prompt

PC Ping 10.0.0.4

Pinging 10.0.0.4 with 32 bytes of data:

Reply from 10.0.0.4: bytes = 32 time = 24ms TTL = 128
Reply from 10.0.0.4: bytes = 32 time = 5ms TTL = 128
Reply from 10.0.0.4: bytes = 32 time = 5ms TTL = 128
Reply from 10.0.0.4: bytes = 32 time = 12ms TTL = 128

Ping statistics for 10.0.0.4

Packets :- Sent = 4, Received = 4 Lost = 0 (0% Loss)

Approximate round trip time. in milli seconds:

minimum = 5ms. maximum = 24ms. Average = 14ms.

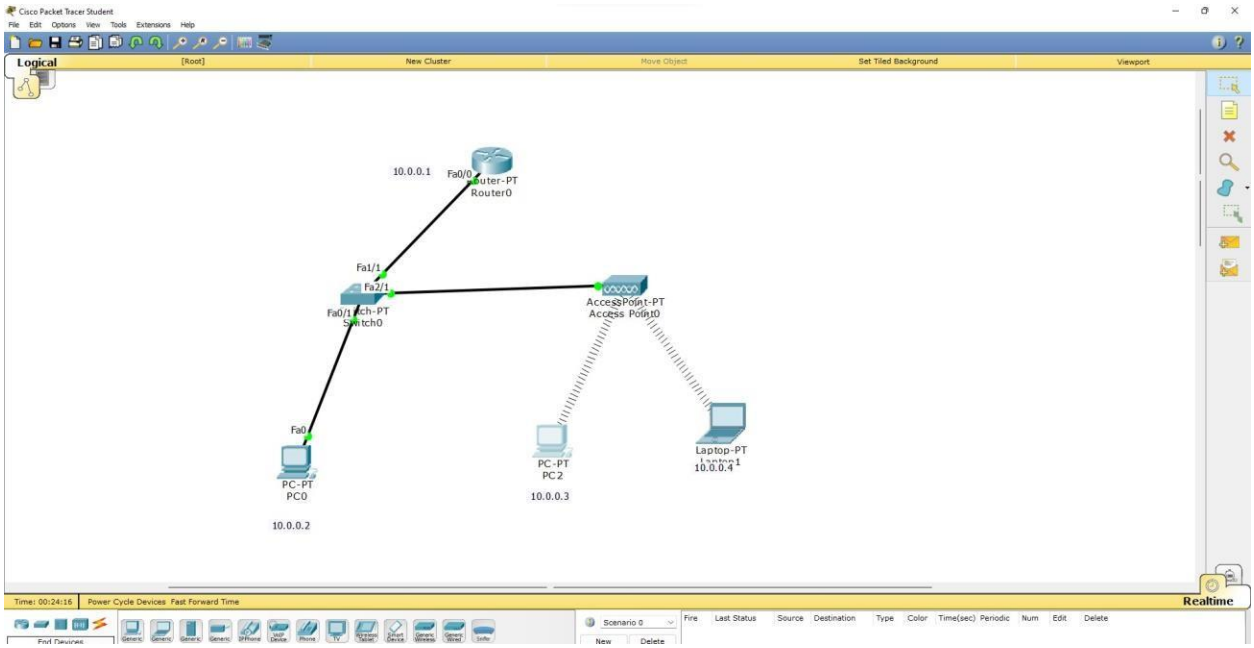
OBSERVATION:

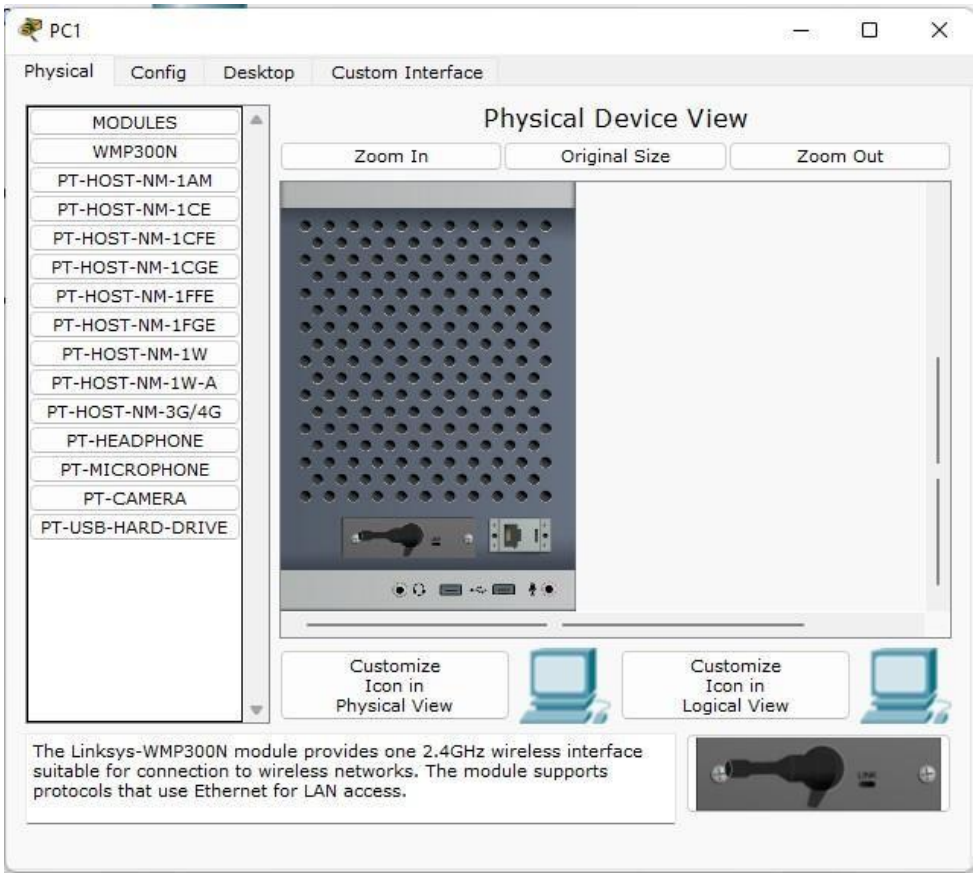
We can Ping each and every device to the other device.

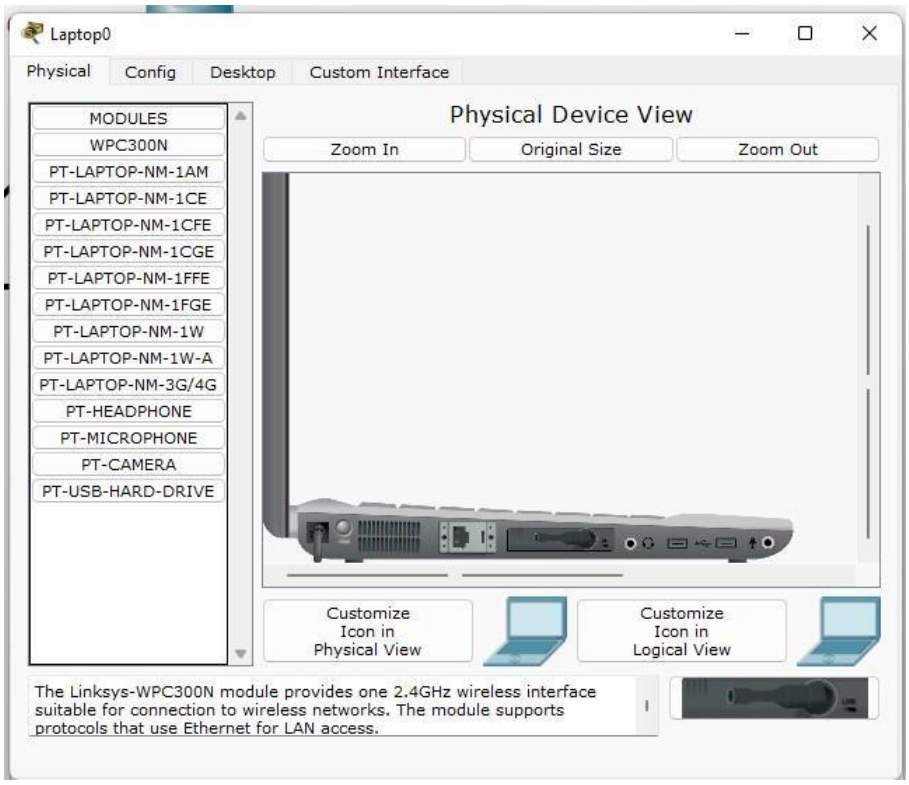
So we can observe that wireless connection is done successfully.

When connection is established there is stripped lines connecting access points and end devices.

TOPOLOGY:


Logical
10.0.0.1
Fa0/0
Router-PT
Router0
Fa1/1
Fa2/1
Fa0/1
Switch0
AccessPoint-PT
Access Point0
Fa0
PC-PT
PC0
10.0.0.2
PC-PT
PC2
10.0.0.3
Laptop-PT
10.0.0.4
Realtime


PC1
Physical
Config
Desktop
Custom Interface
MODULES
WMP300N
PT-HOST-NM-1AM
PT-HOST-NM-1CE
PT-HOST-NM-1CFE
PT-HOST-NM-1CGE
PT-HOST-NM-1FFE
PT-HOST-NM-1FGE
PT-HOST-NM-1W
PT-HOST-NM-1W-A
PT-HOST-NM-3G/4G
PT-HEADPHONE
PT-MICROPHONE
PT-CAMERA
PT-USB-HARD-DRIVE
Physical Device View
Zoom In
Original Size
Zoom Out
Customize Icon in Physical View
Customize Icon in Logical View
The Linksys-WMP300N module provides one 2.4GHz wireless interface suitable for connection to wireless networks. The module supports protocols that use Ethernet for LAN access.


Laptop0
Physical
Config
Desktop
Custom Interface
MODULES
WPC300N
PT-LAPTOP-NM-1AM
PT-LAPTOP-NM-1CE
PT-LAPTOP-NM-1CFE
PT-LAPTOP-NM-1CGE
PT-LAPTOP-NM-1FFE
PT-LAPTOP-NM-1FGE
PT-LAPTOP-NM-1W
PT-LAPTOP-NM-1W-A
PT-LAPTOP-NM-3G/4G
PT-HEADPHONE
PT-MICROPHONE
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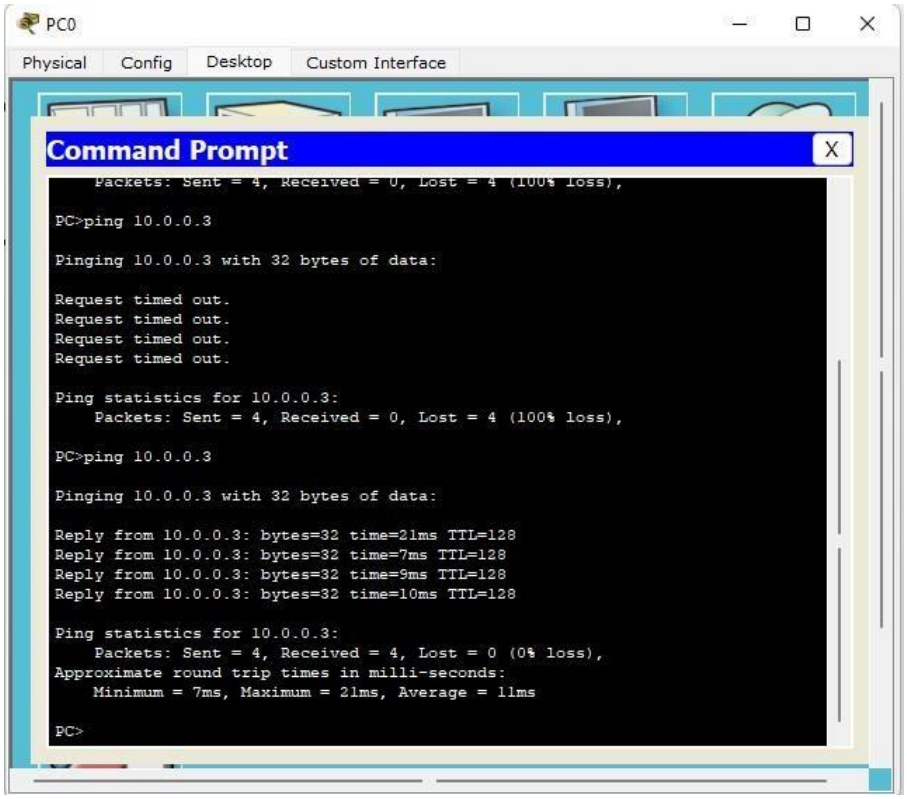
OUTPUT:


PC0
Physical
Config
Desktop
Custom Interface
Command Prompt
X
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
PC>ping 10.0.0.3
Pinging 10.0.0.3 with 32 bytes of data:
Request timed out.
Request timed out.
Request timed out.
Request timed out.
Ping statistics for 10.0.0.3:
Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
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=7ms TTL=128
Reply from 10.0.0.3: bytes=32 time=9ms TTL=128
Reply from 10.0.0.3: bytes=32 time=10ms TTL=128
Ping statistics for 10.0.0.3:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 7ms, Maximum = 21ms, Average = 11ms
PC>