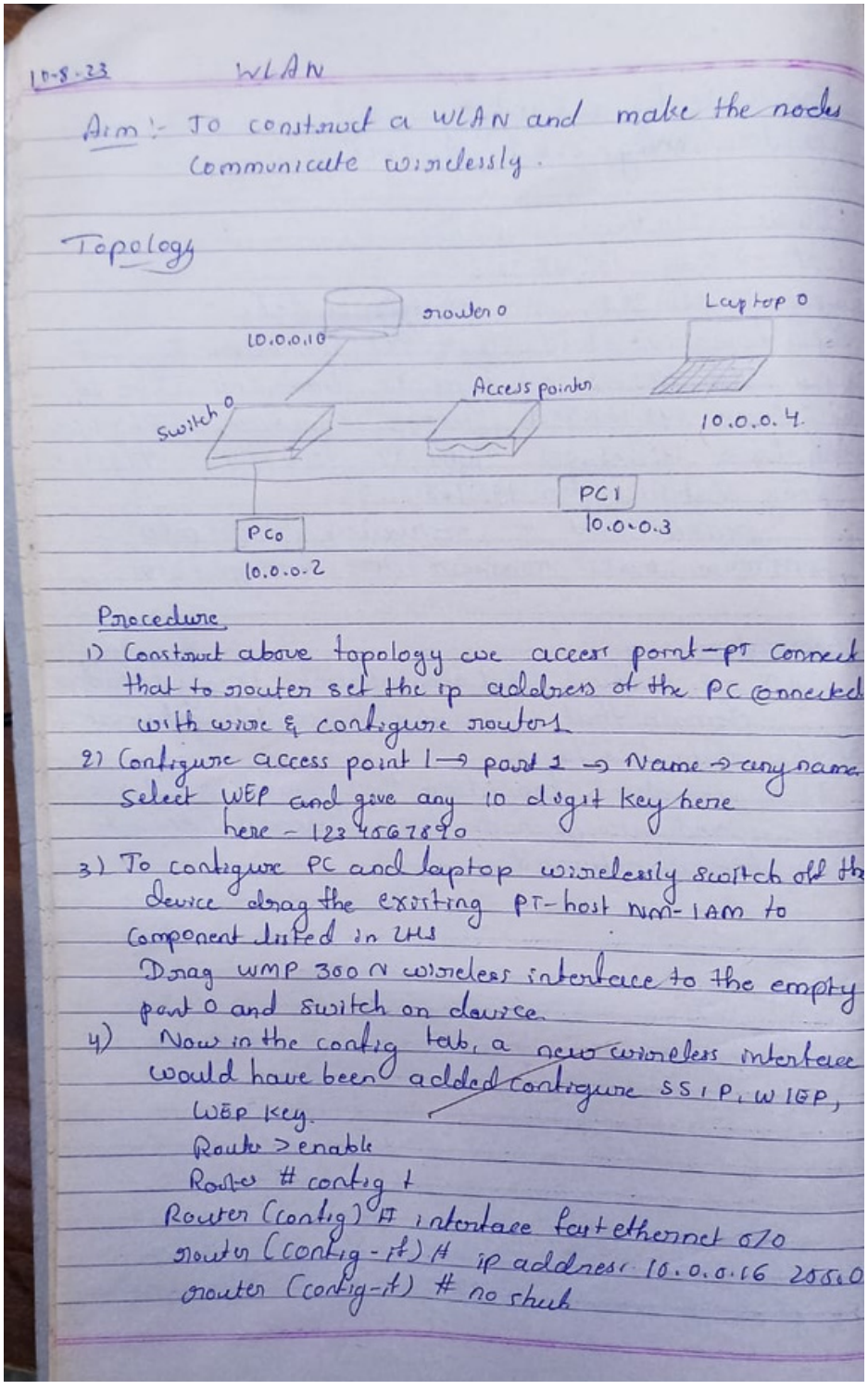
WEEK 11

To construct a WLAN and make the nodes communicate wirelessly

OBSERVATION:



10-8-23 WLAN

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

Topology

Procedure

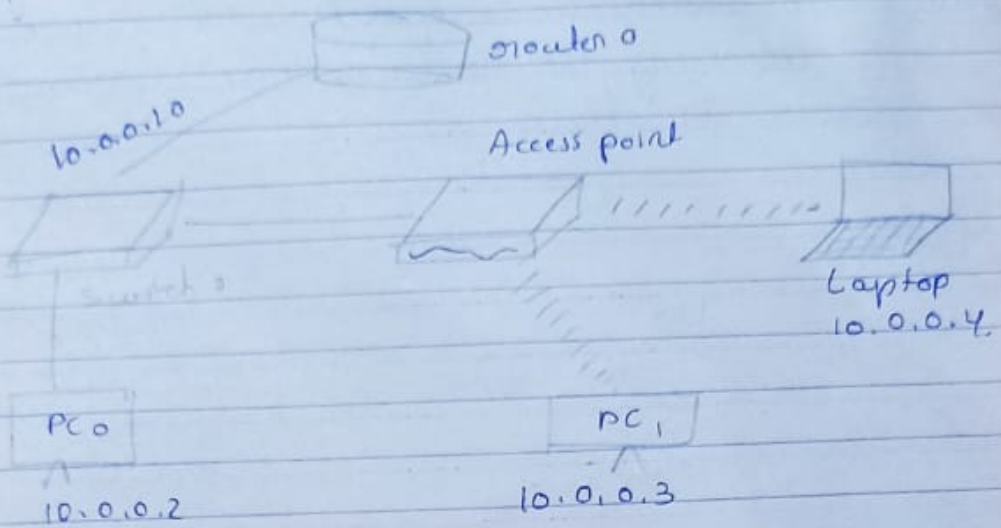
1) Construct above topology use access point-PT Connect that to router set the ip address of the PC connected with wire & configure router1

2) Configure access point 1 → port 1 → Name → any name Select WEP and give any 10 digit key here here - 1234567890

3) To configure PC and laptop wirelessly switch off the device drag the existing PT-host NM-1AM to Component listed in LHS
Drag WMP 300 N wireless interface to the empty port 0 and switch on device

4) Now in the config tab, a new wireless interface would have been added configure SSID, WEP, WEP key.
Route > enable
Router # config t
Router (config) # interface fastethernet 0/0
router (config-if) # ip address 10.0.0.16 255.0
router (config-if) # no shut

Result:



in PC0 (10.0.0.2)

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 = 21 ms TTL = 128

" time = 12 ms TTL = 128

" time = 6ms TTL = 128

" time = 0ms TTL = 128

Ping statistics for 10.0.0.1

packets sent = 4, recieved = 4 lost (0%)

approximate round trip time in milli seconds

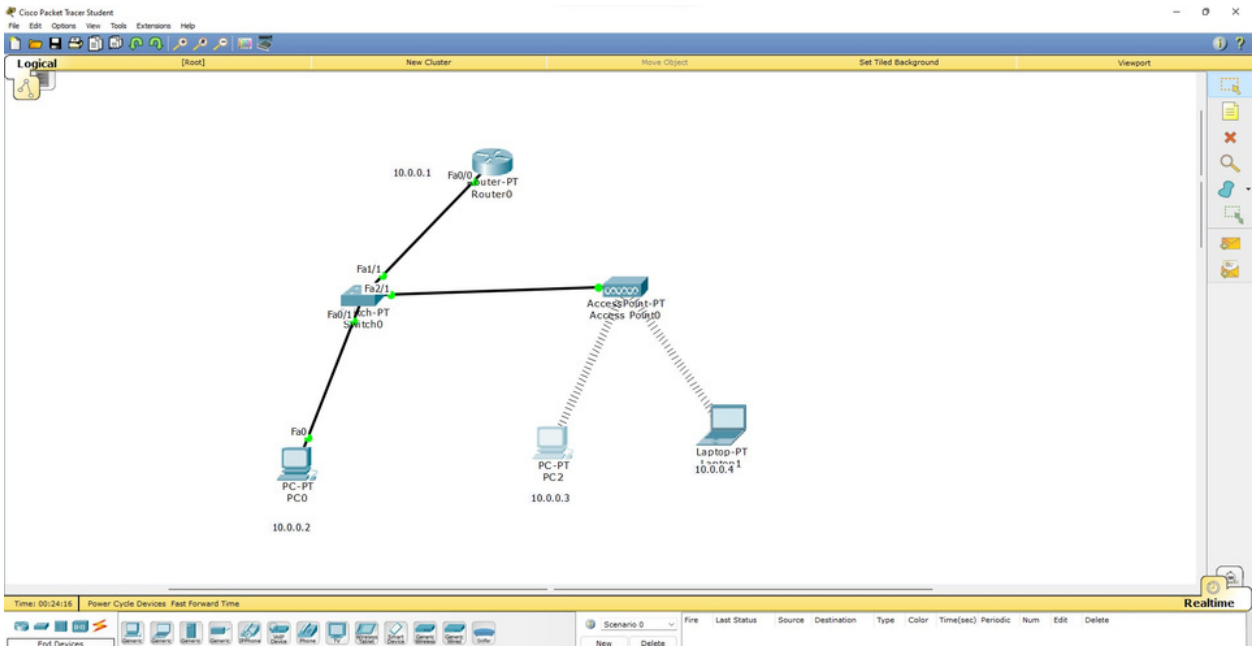
minimum = 6ms, maximum = 21 ms Avg = 12 ms

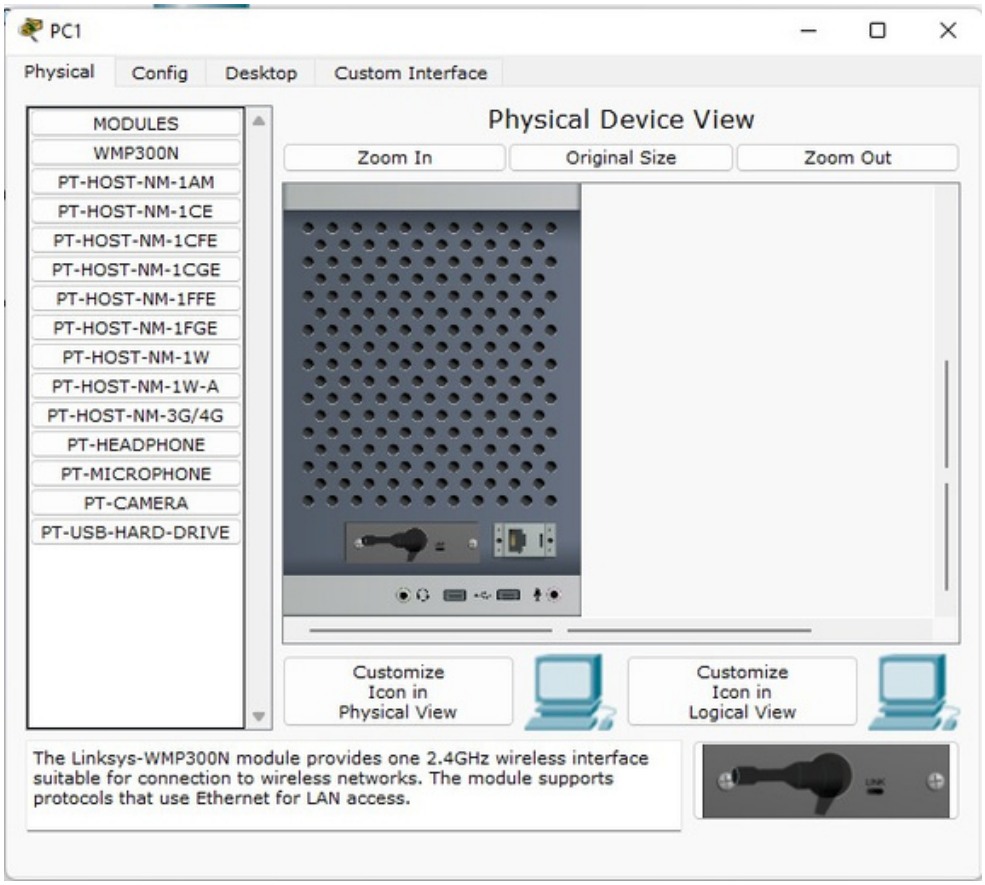
Observation

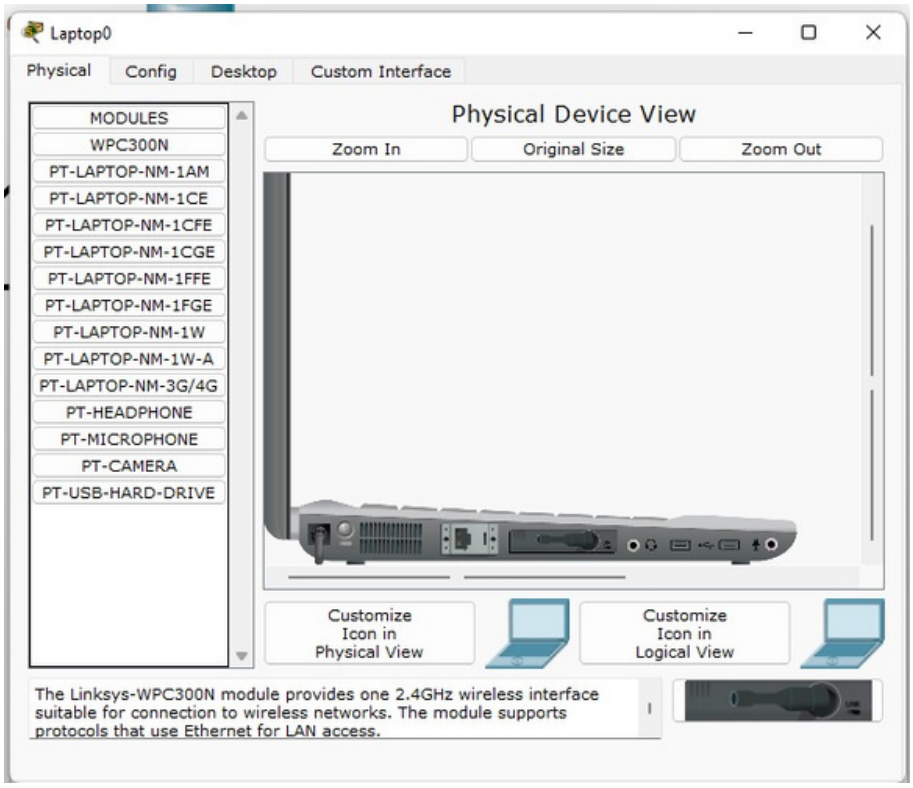
29/8/2023

1) Wireless local area network (WLAN) is a group of isolocated computer or other devices that form a network based on radio transmission rather than wire connections.
2) After the WLAN is setup, the lined connection appears in topology from access point.

TOPOLOGY:


Logical
10.0.0.1
Fa0/0
Router-PT
Router0
Fa1/1
Fa2/1
Fa0/1
Switch0
Access Point-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
PT-CAMERA
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Zoom In
Original Size
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Customize Icon in Physical View
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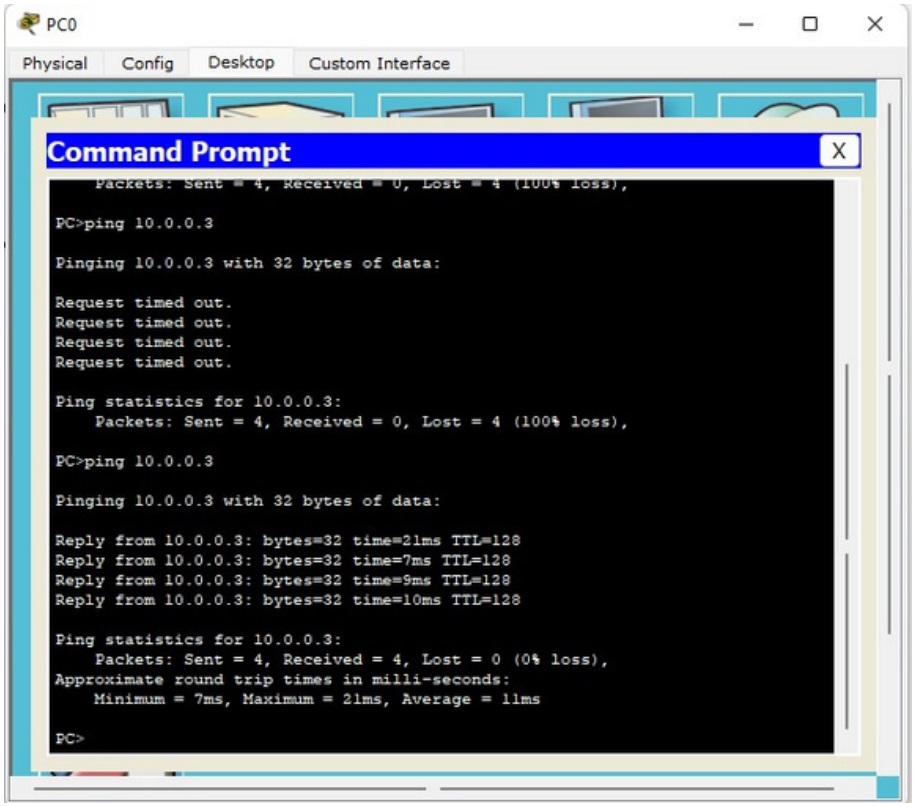
OUTPUT:


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>