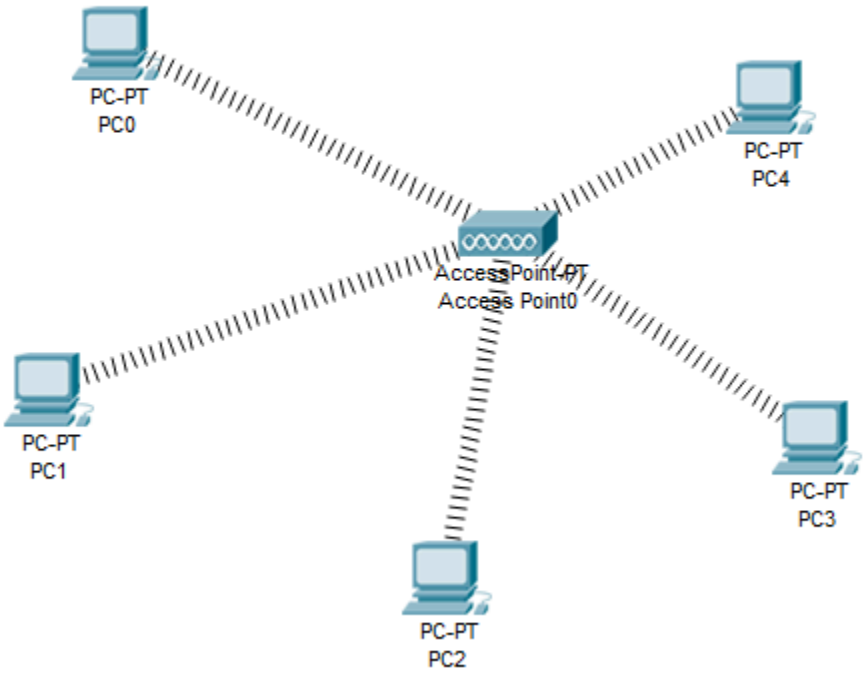
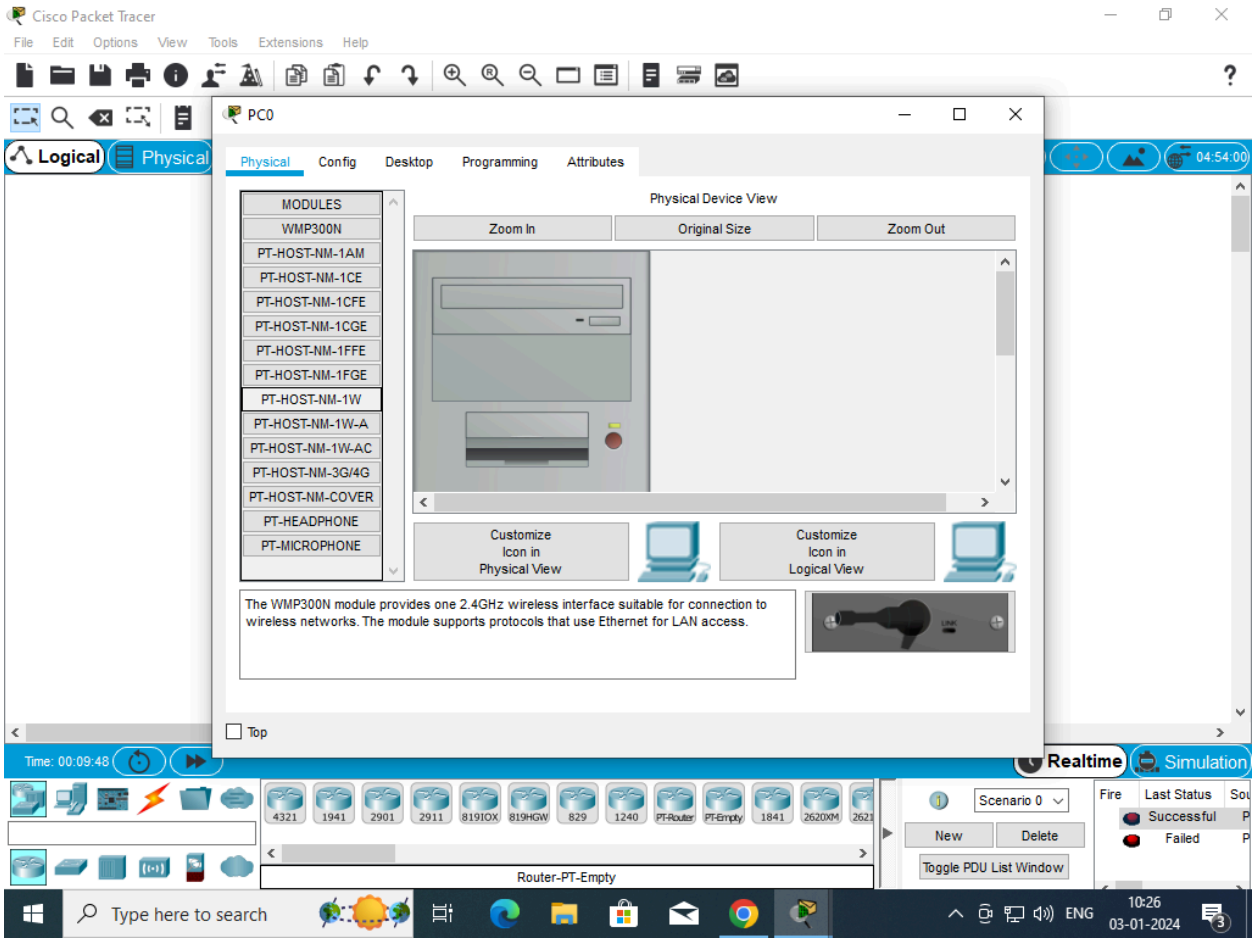
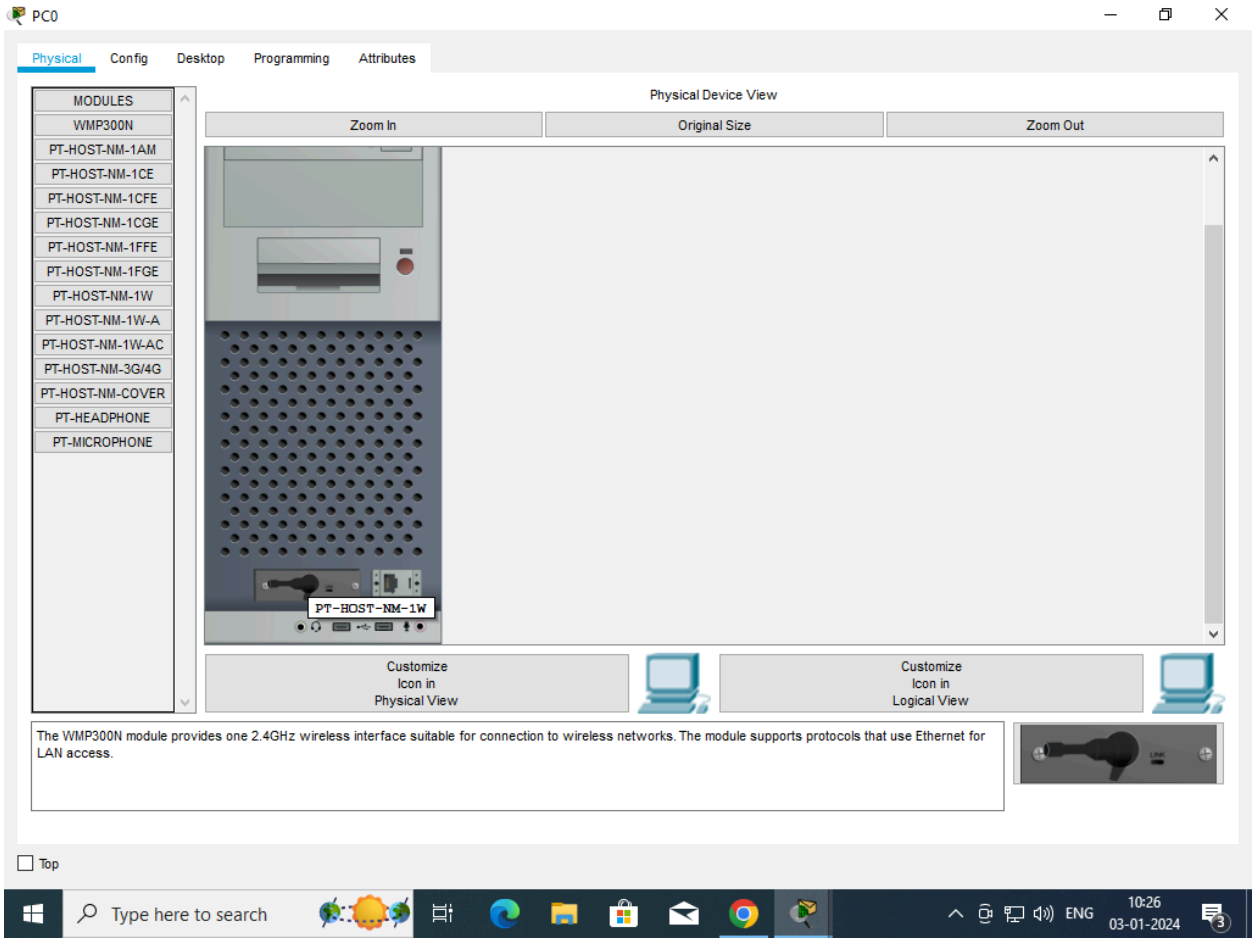
SYCS CN
PRACTICAL NO 7

AIM:
Using Packet Tracer, create a wireless network of multiple PCs using appropriate access point.




Cisco Packet Tracer
File Edit Options View Tools Extensions Help
PC0
Physical Config Desktop Programming Attributes
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-1W-AC
PT-HOST-NM-3G/4G
PT-HOST-NM-COVER
PT-HEADPHONE
PT-MICROPHONE
Physical Device View
Zoom In
Original Size
Zoom Out
Customize Icon in Physical View
Customize Icon in Logical View
The WMP300N module provides one 2.4GHz wireless interface suitable for connection to wireless networks. The module supports protocols that use Ethernet for LAN access.
Top
Logical
Physical
Time: 00:09:48
Realtime
Simulation
Router-PT-Empty
Scenario 0
New
Delete
Toggle PDU List Window
Fire
Last Status
Successful
Failed
Type here to search
ENG
10:26
03-01-2024


PC0
Physical
Config
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PT-HOST-NM-1AM
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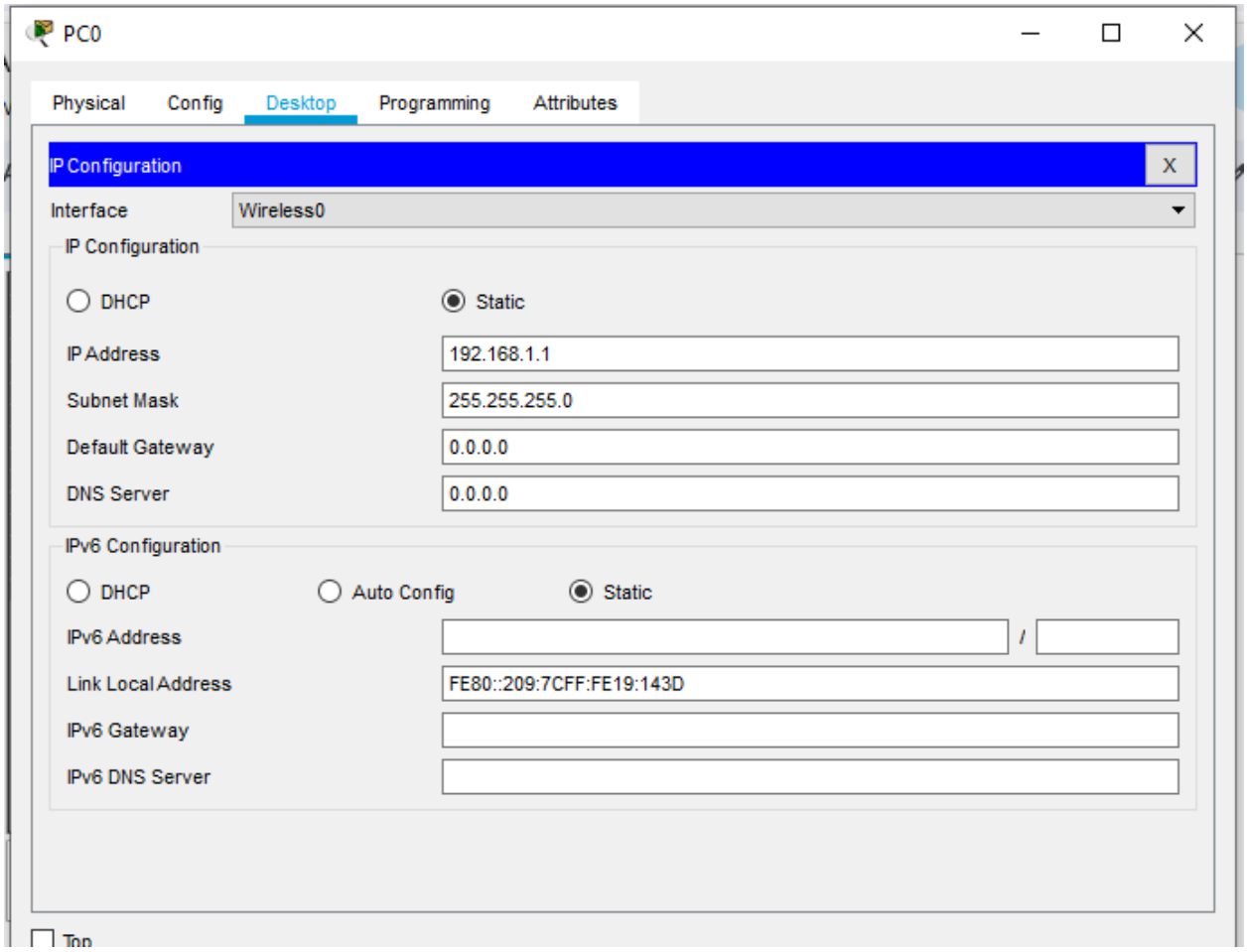
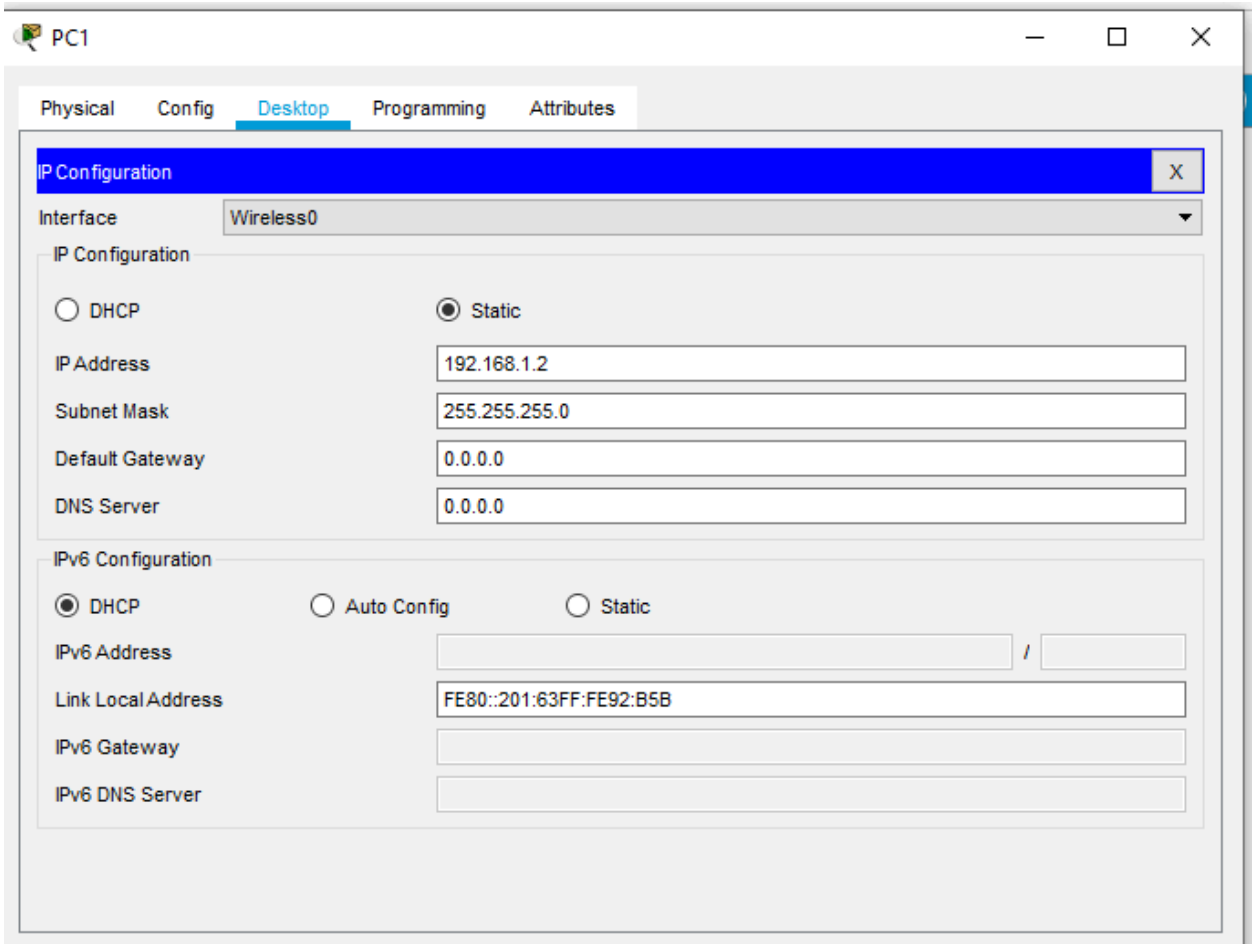
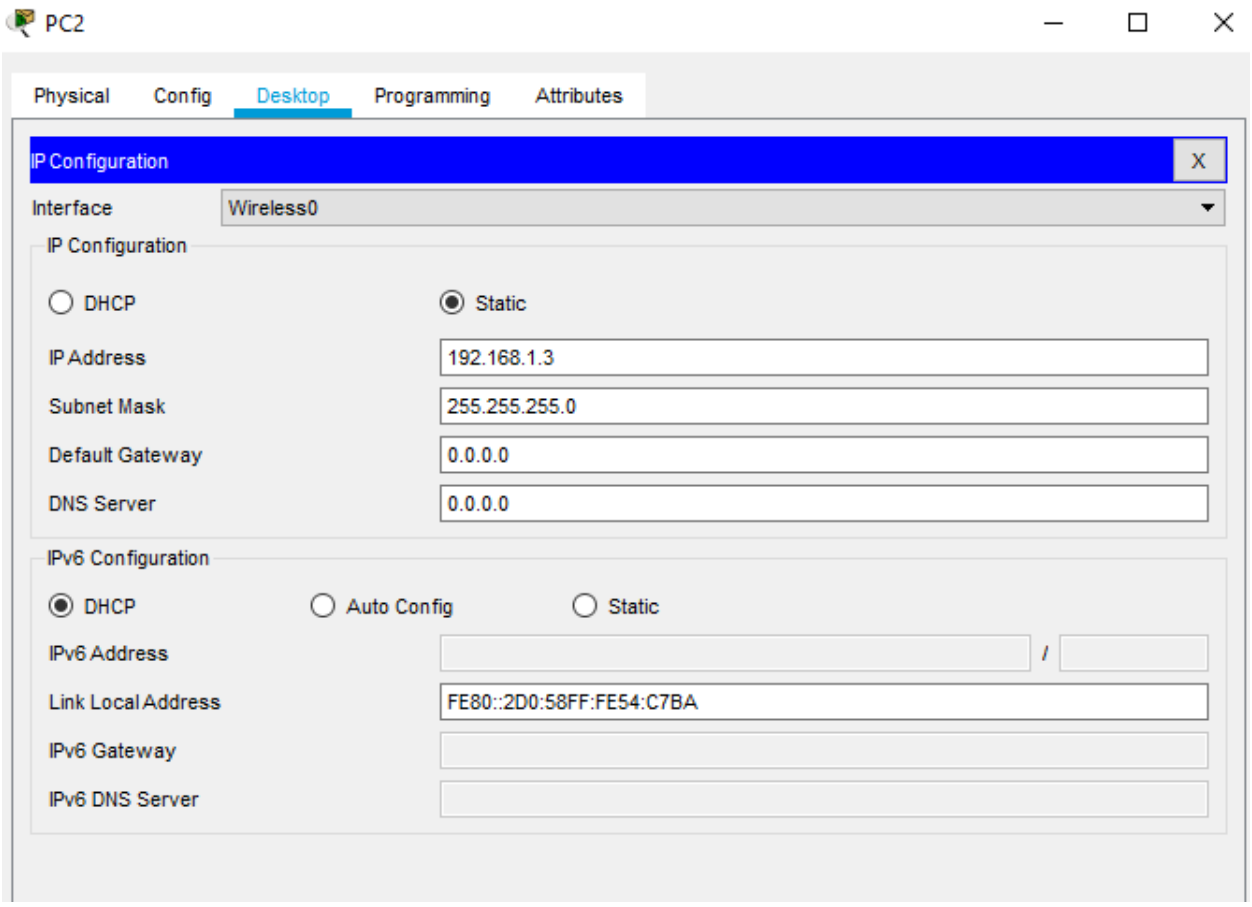
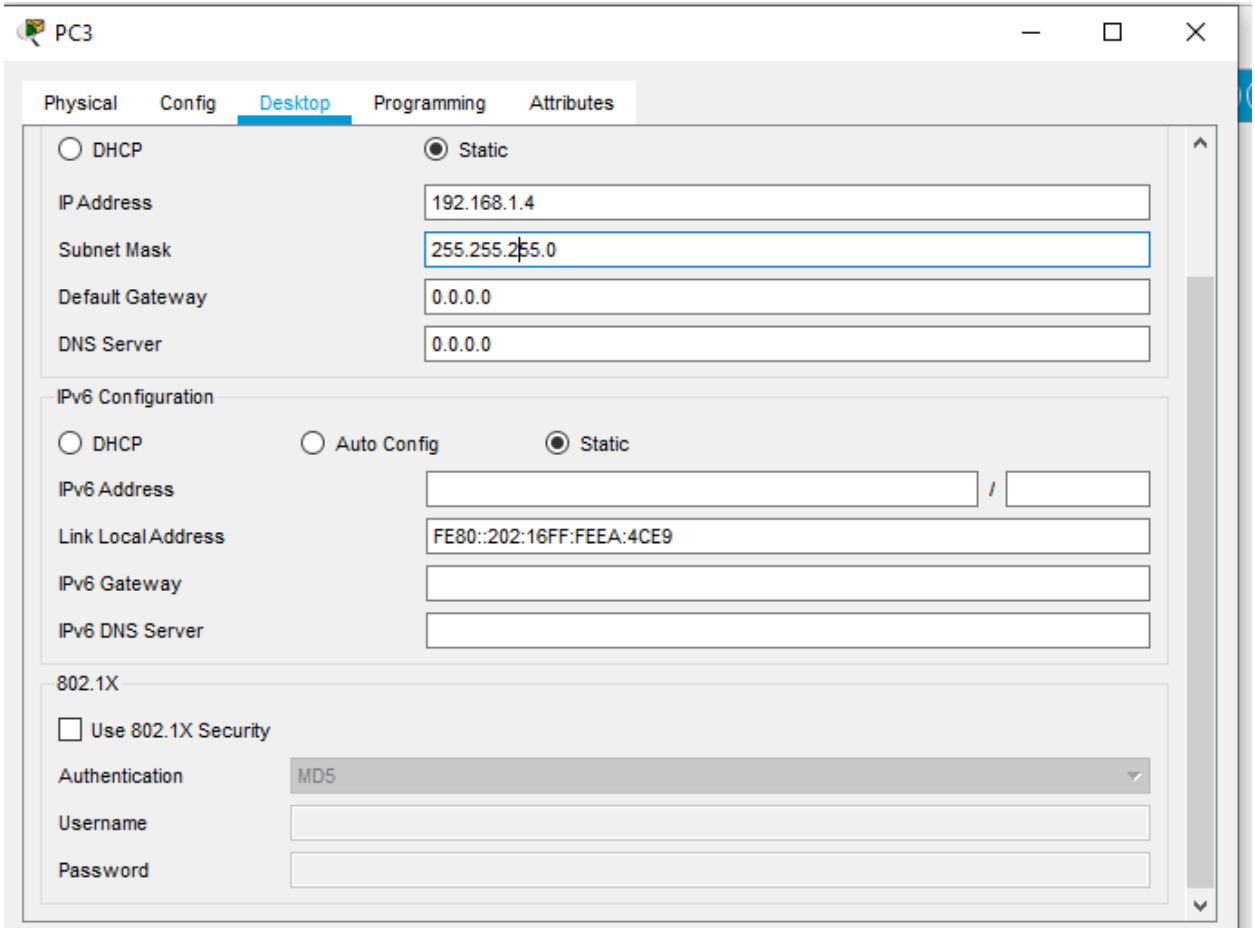
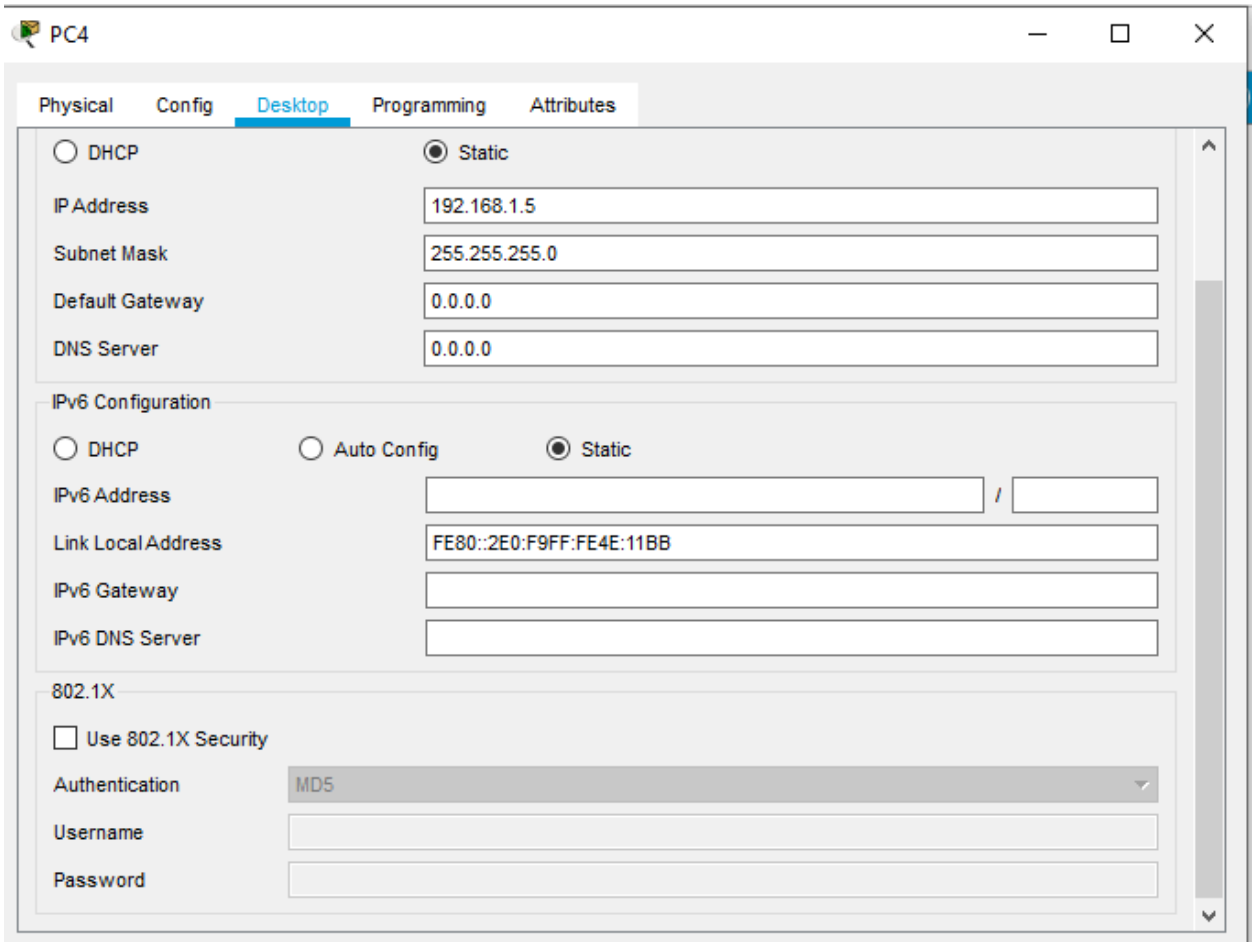
PT-HOST-NM-1W
PT-HOST-NM-1W-A
PT-HOST-NM-1W-AC
PT-HOST-NM-3G/4G
PT-HOST-NM-COVER
PT-HEADPHONE
PT-MICROPHONE
Physical Device View
Zoom In
Original Size
Zoom Out
PT-HOST-NM-1W
Customize
Icon in
Physical View
Customize
Icon in
Logical View
The WMP300N module provides one 2.4GHz wireless interface suitable for connection to wireless networks. The module supports protocols that use Ethernet for LAN access.
Top
Type here to search
ENG
10:26
03-01-2024


PC0
Physical
Config
Desktop
Programming
Attributes
IP Configuration
X
Interface
Wireless0
IP Configuration
DHCP
Static
IP Address
192.168.1.1
Subnet Mask
255.255.255.0
Default Gateway
0.0.0.0
DNS Server
0.0.0.0
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
/
Link Local Address
FE80::209:7CFF:FE19:143D
IPv6 Gateway
IPv6 DNS Server
Top


PC1
Physical
Config
Desktop
Programming
Attributes
IP Configuration
X
Interface
Wireless0
IP Configuration
DHCP
Static
IP Address
192.168.1.2
Subnet Mask
255.255.255.0
Default Gateway
0.0.0.0
DNS Server
0.0.0.0
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
/
Link Local Address
FE80::201:63FF:FE92:B5B
IPv6 Gateway
IPv6 DNS Server


PC2
Physical
Config
Desktop
Programming
Attributes
IP Configuration
X
Interface
Wireless0
IP Configuration
DHCP
Static
IP Address
192.168.1.3
Subnet Mask
255.255.255.0
Default Gateway
0.0.0.0
DNS Server
0.0.0.0
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
/
Link Local Address
FE80::2D0:58FF:FE54:C7BA
IPv6 Gateway
IPv6 DNS Server


PC3
Physical
Config
Desktop
Programming
Attributes
DHCP
Static
IP Address
192.168.1.4
Subnet Mask
255.255.255.0
Default Gateway
0.0.0.0
DNS Server
0.0.0.0
IPv6 Configuration
DHCP
Auto Config
Static
IPv6 Address
/
Link Local Address
FE80::202:16FF:FEEA:4CE9
IPv6 Gateway
IPv6 DNS Server
802.1X
Use 802.1X Security
Authentication
MD5
Username
Password



Access Point is a networking sub device in a LAN (Local Area Network) which provides other locations to connect and enables the devices on the network. It is a wireless device that allows connecting with wired Devices. An Access Point is a standalone physical appliance that adds the capability of an existing wired network. An AP is like an Ethernet hub. An AP can't function as a router. It is mostly used in larger enterprises or organizations.

Router acts as a core device that sets up the network in a Local Area and manages the communication of all the devices which are connected to it. The router forwards or delivers the data packets in an organized way between computer networks. It forwards the IP between the wireless subnet and other subnets. It can connect both end-user clients and acts as a gateway between the LAN and the internet. A Router is a combination of an Access Point (AP), an

Ethernet Router and a Firewall. It can serve both wired and wireless connectivity to the end-users.

	Access Point	Router
1.	An Access point is a networking device that allows connecting the devices with the wired network.	A Router works as a sender, receiver and analyser between data and computer networks that are linked with it.
2.	An access point is mostly used in LANs(Local Area Networks).	A Router is used in both LANs (Local Area Networks) and WANs(Wide Area Networks).
3.	Maintenance cost is very high	Maintenance cost is low as compared to Access Point.
4.	It covers more laptops, computers and smartphones.	It covers fewer devices.
5.	Access Point support a range upto **2000 sq. ft** which is approximately **185.806 sq. meters.**	Routers support a range of upto **150 ft (46 m)**indoors and **300 ft (92 m)** outdoors.

6.	It is mostly used in large enterprises which have big offices and buildings.	It is mostly used in homes , SOHO working environments and organisations.
7.	An Access point can’t function as a router.	A Router can function as an access point.
8.	An access point can’t deliver the data packets.	A Router delivers data packets in an organized way.