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Roll No : 20P-0180

Section: BCS-5B

Course Name: Computer Networks LAB

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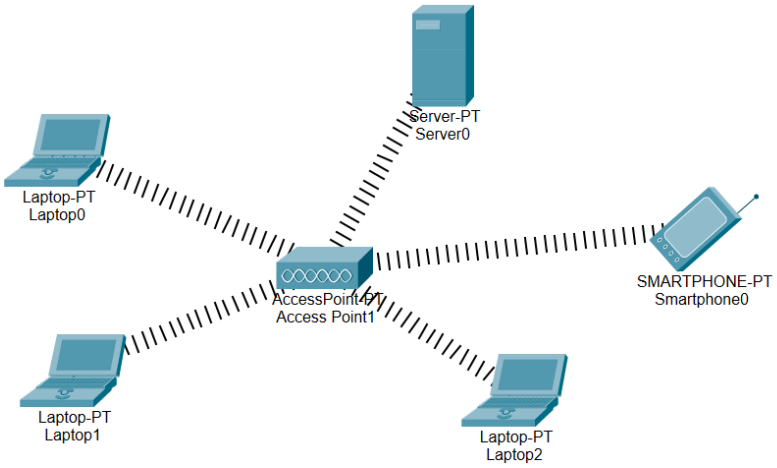
Submitted on : 10/11/2022

LAB 07

TASK 1:

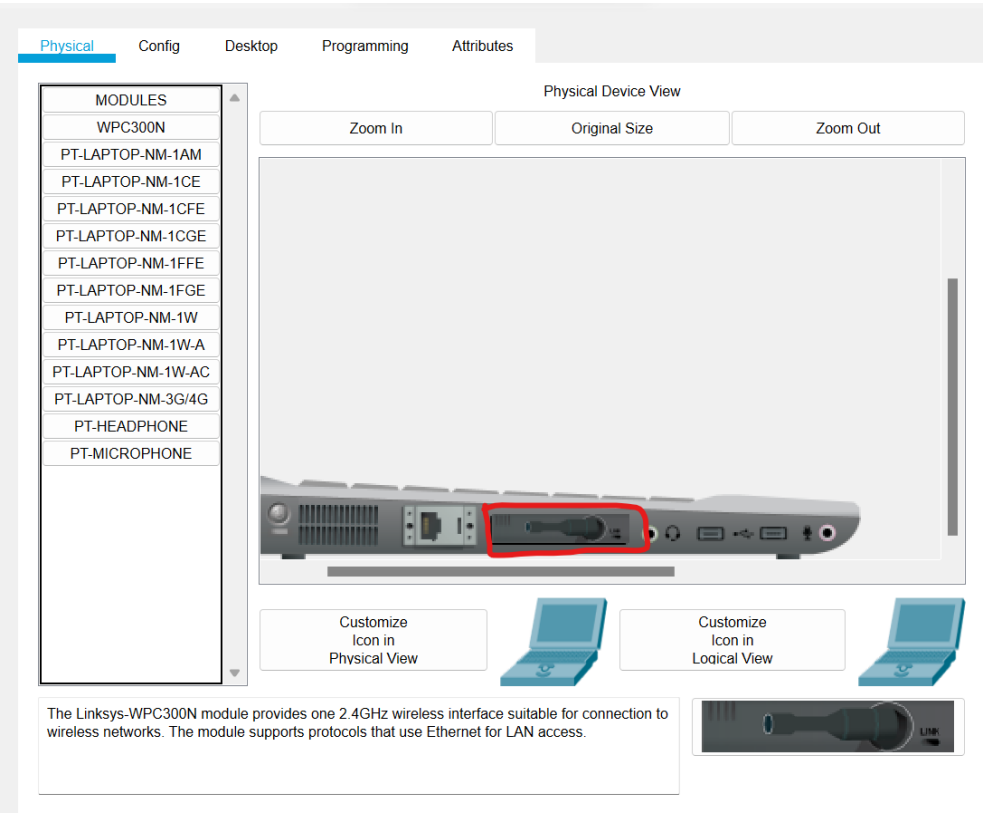
Step 1:

Build a network topology.



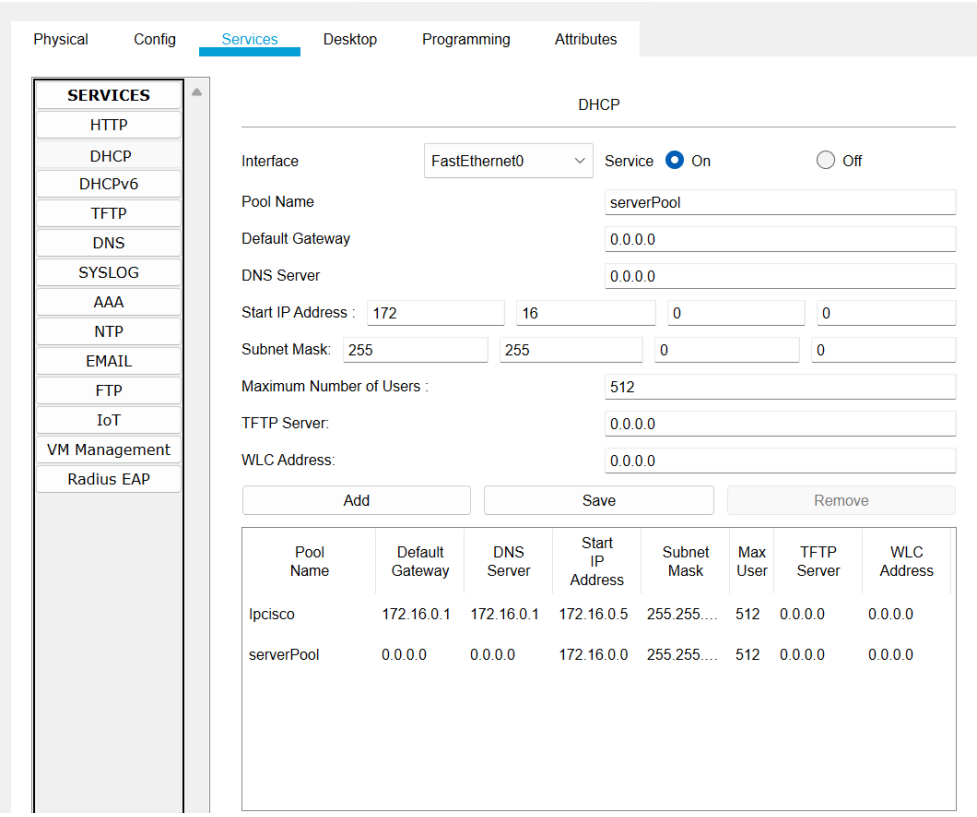
Step 02:

We will power off laptop remove classical ethernet card and will add Wireless Interface Card (WPC300N).



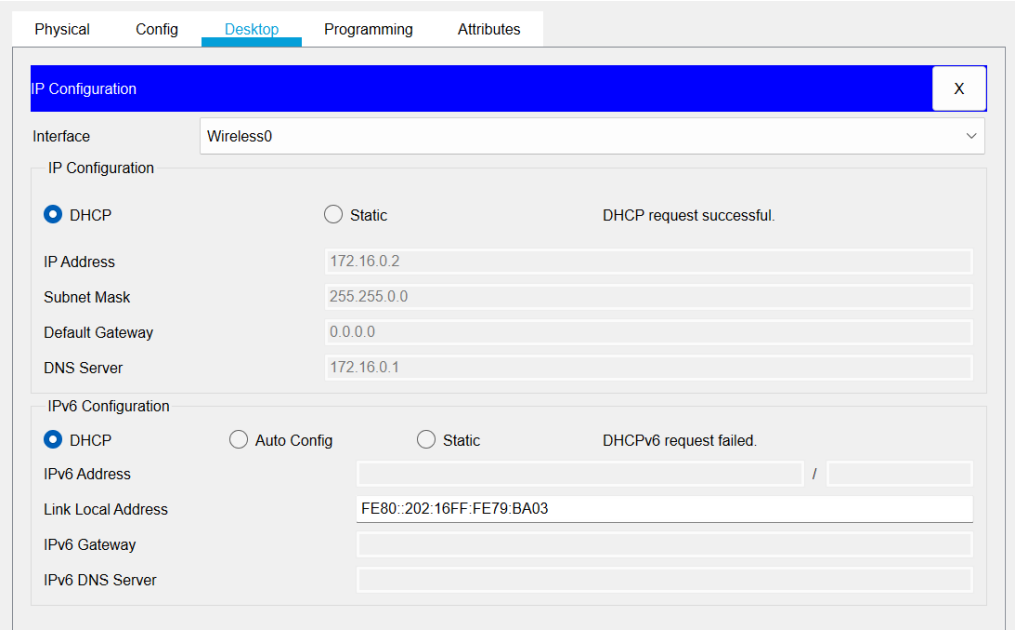
Step 03:

We will configure our DHCP server.



Step 04:

We will assign dynamic ip to our laptop from DHCP server through access point.



TASK 2:

Step 1:

Build a network topology.

Step 02:

We will power off laptops remove classical ethernet card and will add Wireless Interface Card (WPC300N).

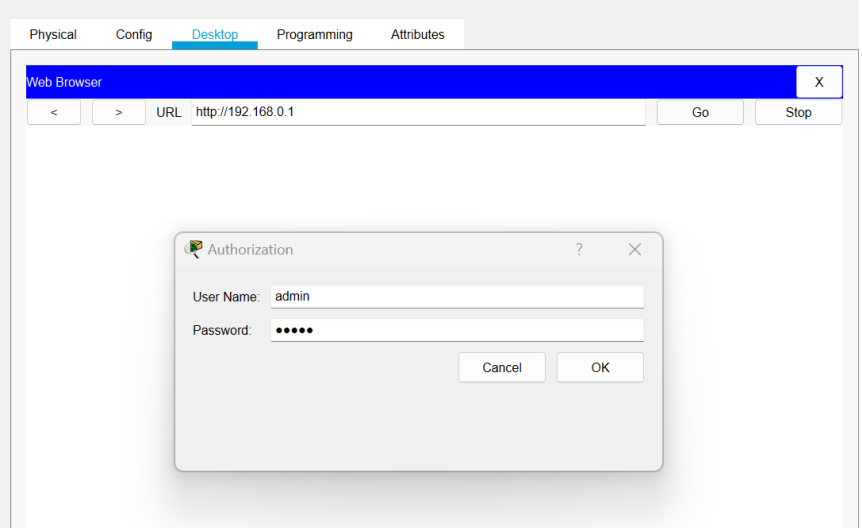
Step 03:

Now we will configure our wireless router. We can do it by two ways.

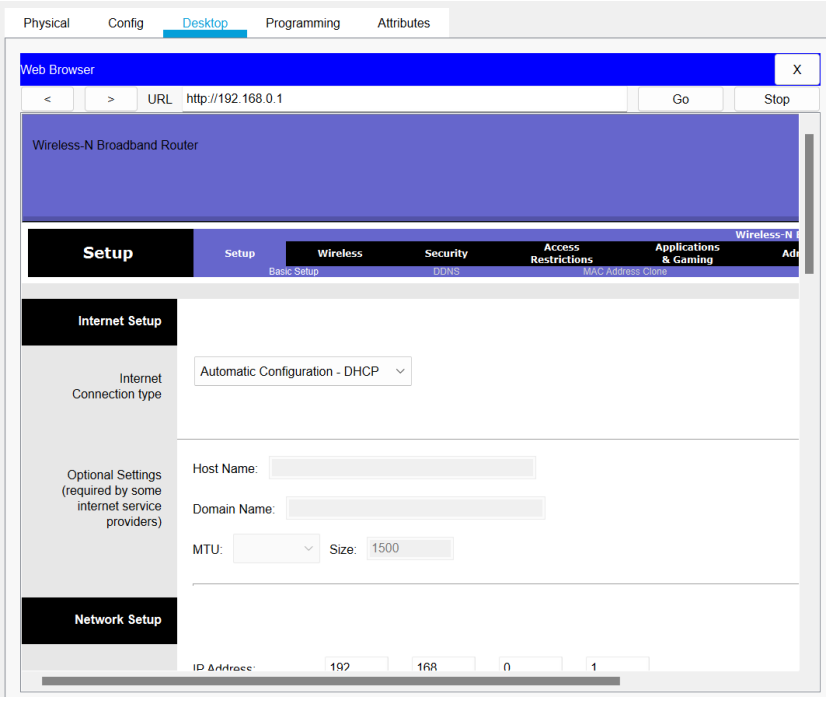
1)through directly clicking GUI of wirless router

2) Using a browser in a PC or laptop in the LAN.

First, we will do it by using browser in PC or laptop.

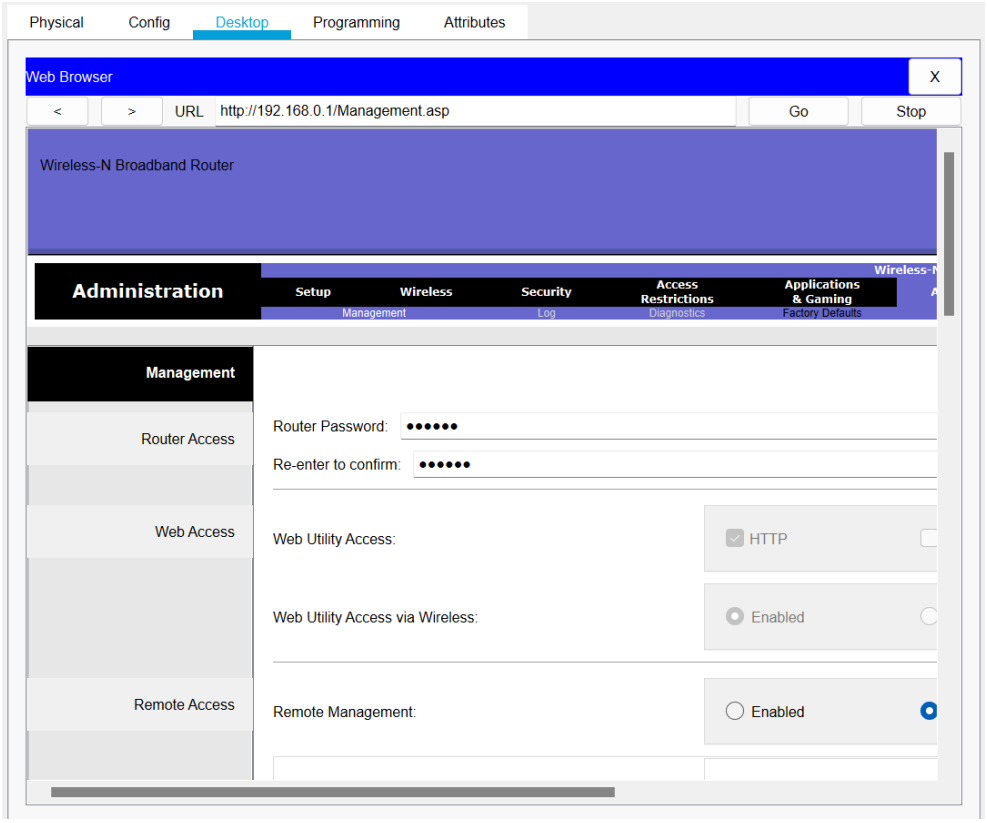


After giving default user name (admin) and password (admin) we can access the GUI of the router.

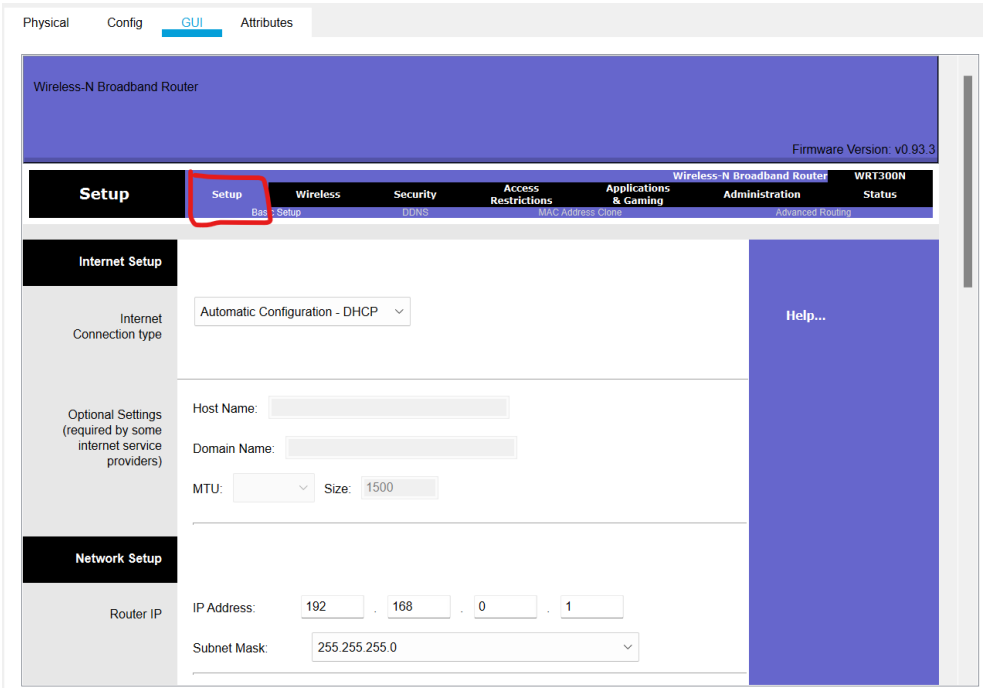


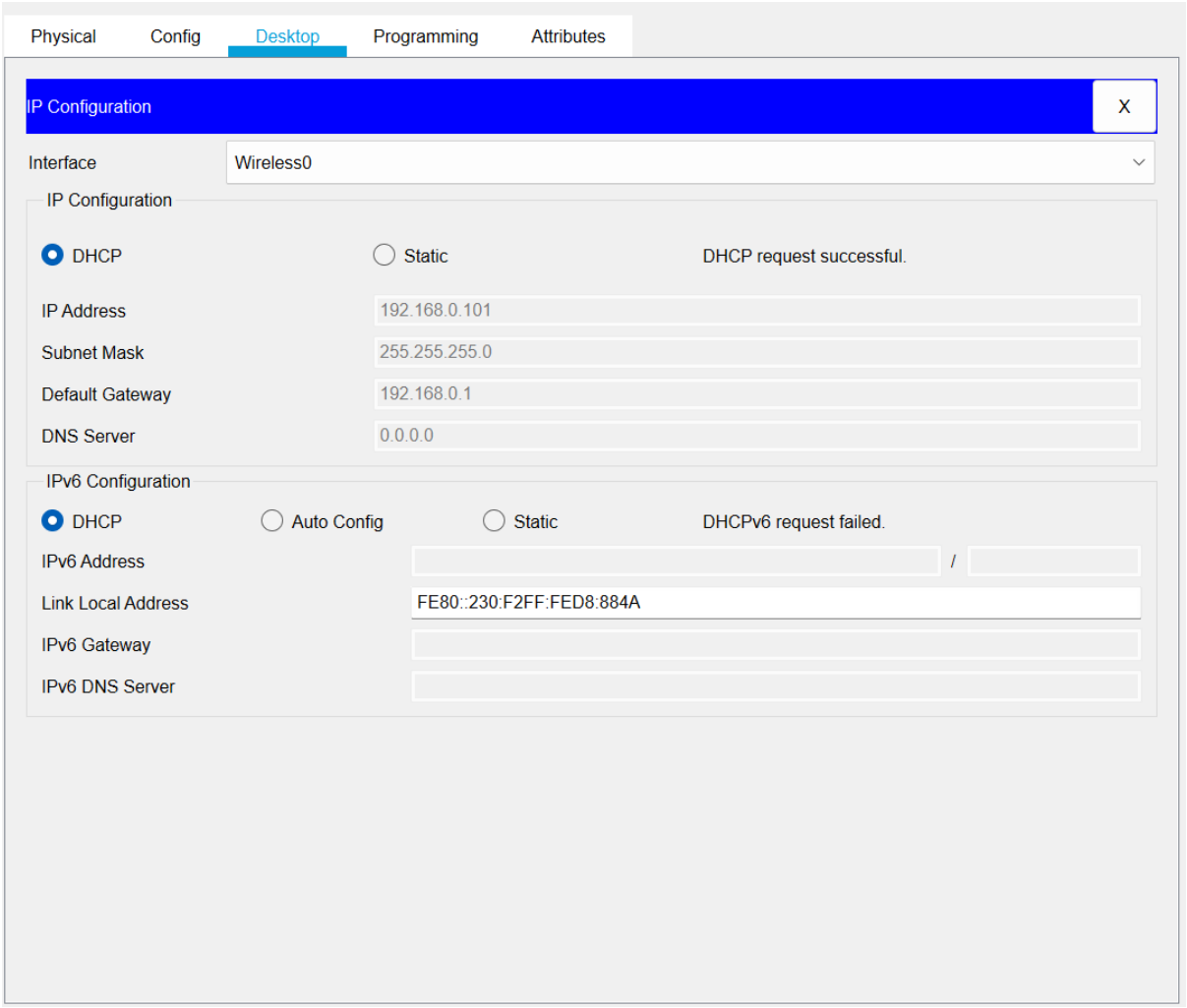
Step 04:

We'll begin with Administration in the GUI. we will click on the Administration tab and set a new password for administrative access and save settings.



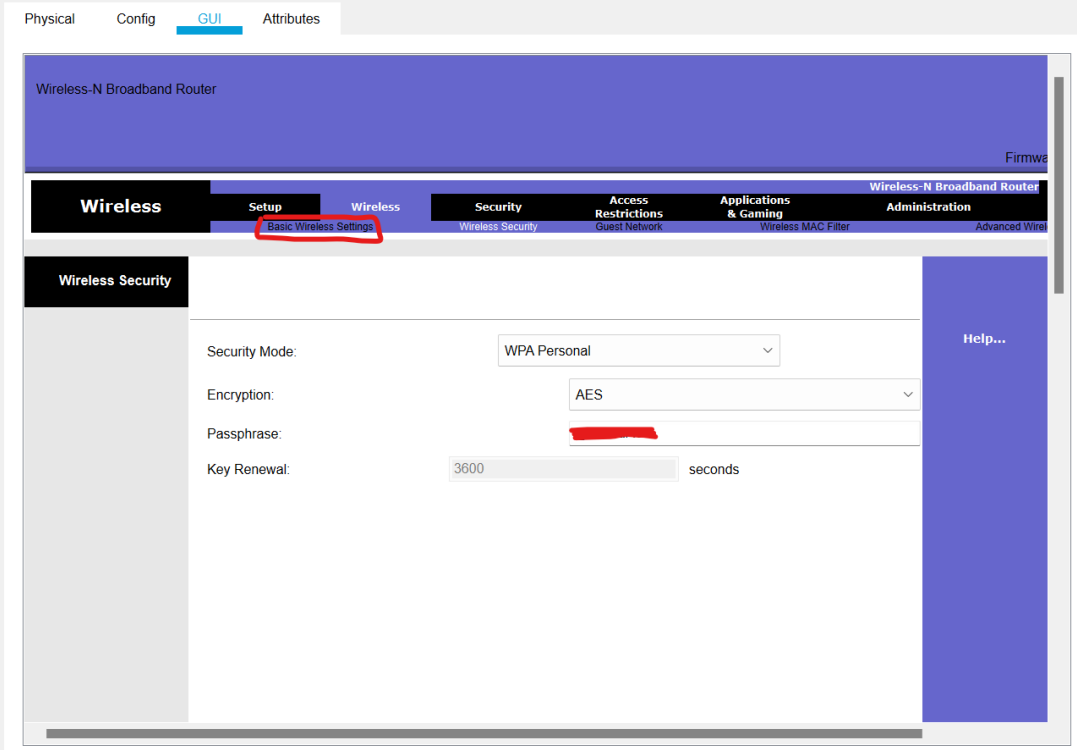
After this we will do LAN Setup and Internet Setup.




Physical
Config
Desktop
Programming
Attributes
IP Configuration
X
Interface
Wireless0
IP Configuration
DHCP
Static
DHCP request successful.
IP Address
192.168.0.101
Subnet Mask
255.255.255.0
Default Gateway
192.168.0.1
DNS Server
0.0.0.0
IPv6 Configuration
DHCP
Auto Config
Static
DHCPv6 request failed.
IPv6 Address
/
Link Local Address
FE80::230:F2FF:FED8:884A
IPv6 Gateway
IPv6 DNS Server

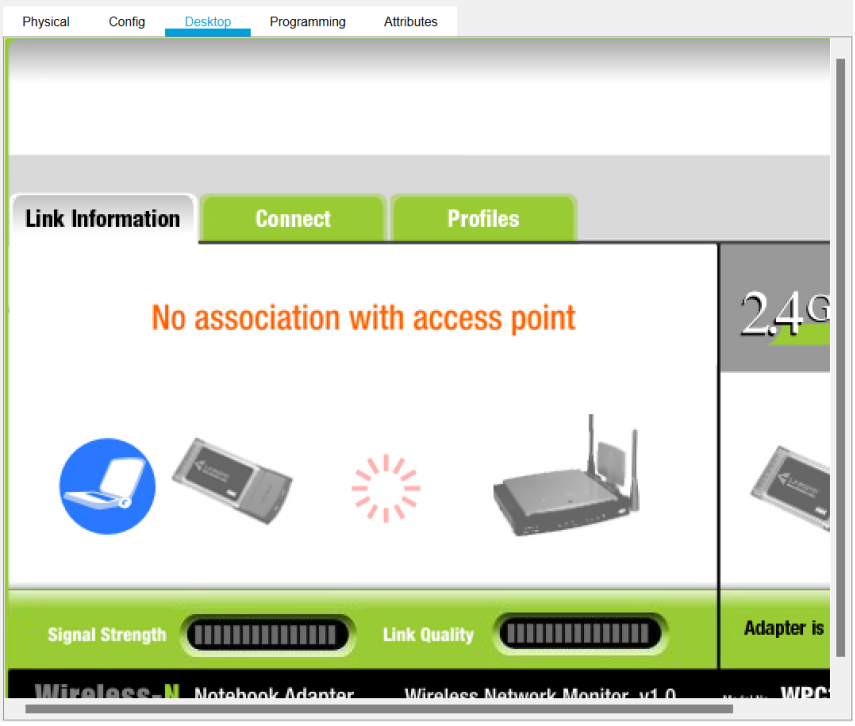
Step 05:

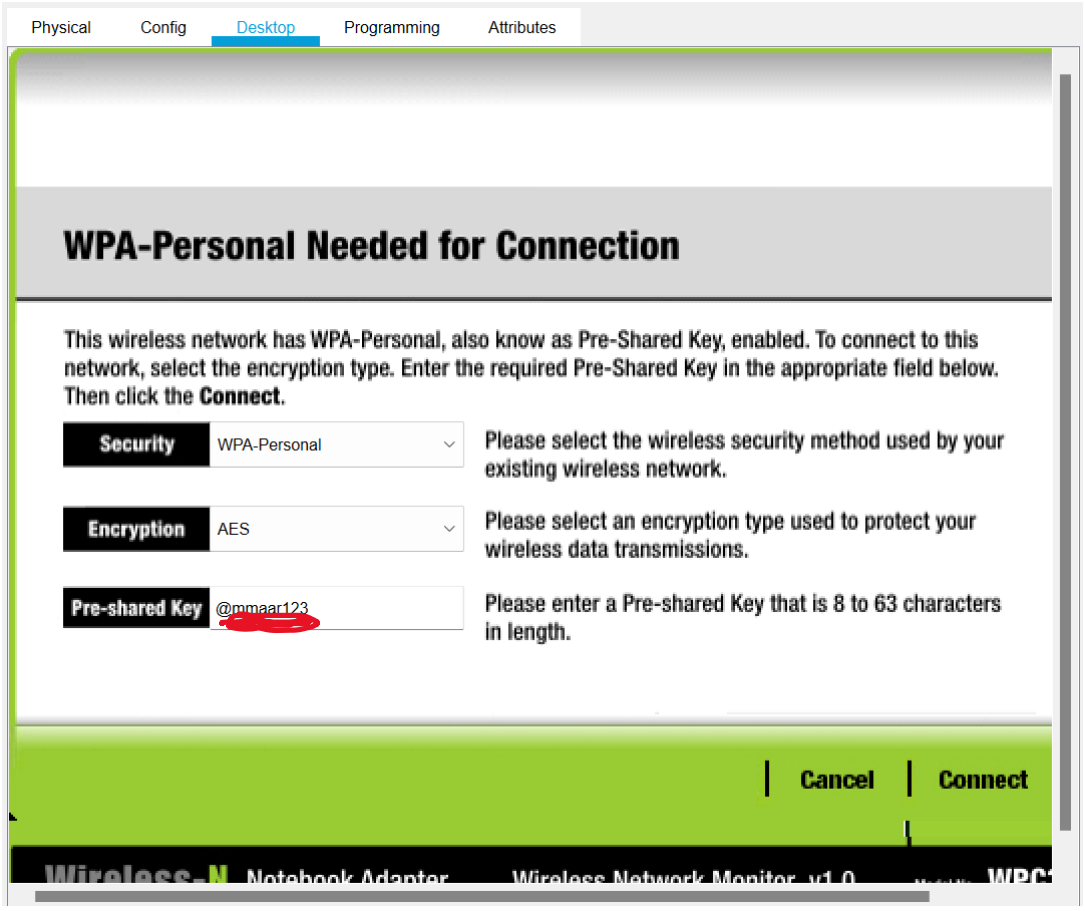
Adding security for wireless LAN access



Then we will check it that whether its working or not

We go to PC or laptop and then its desktop and wireless and we will give our pass key which we have set in our router for wireless.




Physical
Config
Desktop
Programming
Attributes
WPA-Personal Needed for Connection
This wireless network has WPA-Personal, also know as Pre-Shared Key, enabled. To connect to this network, select the encryption type. Enter the required Pre-Shared Key in the appropriate field below. Then click the Connect.
Security
WPA-Personal
Please select the wireless security method used by your existing wireless network.
Encryption
AES
Please select an encryption type used to protect your wireless data transmissions.
Pre-shared Key
@mmaar123
Please enter a Pre-shared Key that is 8 to 63 characters in length.
Cancel
Connect


Physical
Config
Desktop
Programming
Attributes
Link Information
Connect
Profiles
More Information
Infrastructure Mode
2.4G
You have successfully connected to the access point
Signal Strength
Link Quality
Adapter is

Step 06: Internet Setup

```
Router(config)#in fa0/0
Router(config-if)#ip add 155.21.21.1 255.255.0.0
Router(config-if)#no shut

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/0, changed state to up

Router(config-if)#int fa0/1
Router(config-if)#ip add 1
                       ^
% Invalid input detected at '^' marker.

Router(config-if)#
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/0, changed state to up

Router(config-if)#ip add 1
                       ^
% Invalid input detected at '^' marker.

Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/0
Router(config-if)#
Router(config-if)#exit
Router(config)#interface FastEthernet0/1
Router(config-if)#ip address 200.0.0.1 255.255.255.0
Router(config-if)#ip address 200.0.0.1 255.255.255.0
Router(config-if)#ip address 200.0.0.1 255.255.255.0
Router(config-if)#
Router(config-if)#ip add 1

Router(config-if)#no shut

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet0/1, changed state to up

%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet0/1, changed state to up

Router(config-if)#exit
Router(config)#ip dhcp pool mypool
Router(dhcp-config)#net 155.21.0.0 255.255.0.0
Router(dhcp-config)#default-router 155.21.21.1
Router(dhcp-config)#dns-server 0.0.0.0
Router(dhcp-config)#
```

We will finally check It by pinging with other device