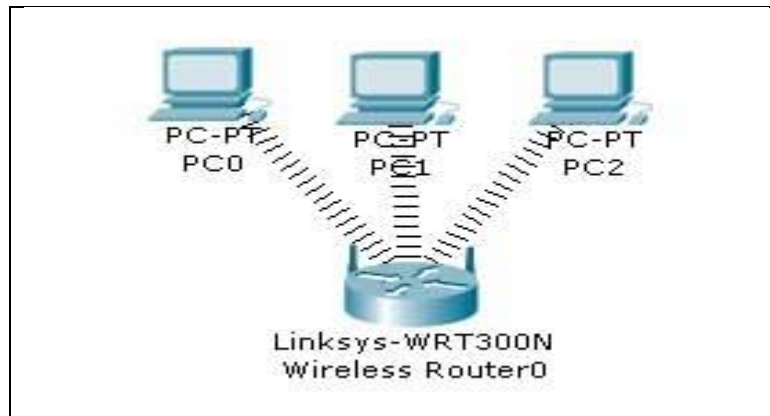# NATIONAL UNIVERSITY OF COMPUTER & EMERGING SCIENCE
Computer Network Lab (CL-307)
<u>Lab Session 09</u>

<u>Wireless Network</u>

In this topology we have three pc connected with Linksys Wireless routers.

- **DHCP is configured and enabled on Wireless router**
- **IP pool for DHCP is 192.168.0.100 to 192.168.0.150**
- **PC are configured to receive IP from DHCP Server**
- **No security is configured**
- **Default SSID is configured to Default**
- **Topology is working on infrastructure mode**
- **Default user name and password is admin**
- **IP of wireless is set to 192.168.0.1**

Now your task is to:-

- **Configure Static IP on PC and Wireless Router**
- **Change SSID to Mother Network**
- **Change IP address of router to 10.0.0.1 and 10.0.0.2 of PC0 10.0.0.3 of PC1 10.0.0.4 of PC2**
- **Secure your network by configuring WAP key on Router**
- **Connect PC by using WAP key**

To complete these tasks follow this step by step guide of how to configure wireless network

As given in question our network is running on 192.168.0.0 network and all PC's are DHCP clients and functioning properly. So we will first connect to Wireless router to off DHCP.

Double click on PC and select Web Browser. As given in question IP of Wireless router is 192.168.0.1 so give it in Web browser and press enter, now it will ask for authentication which is also given in question. Give user name admin and Password to admin
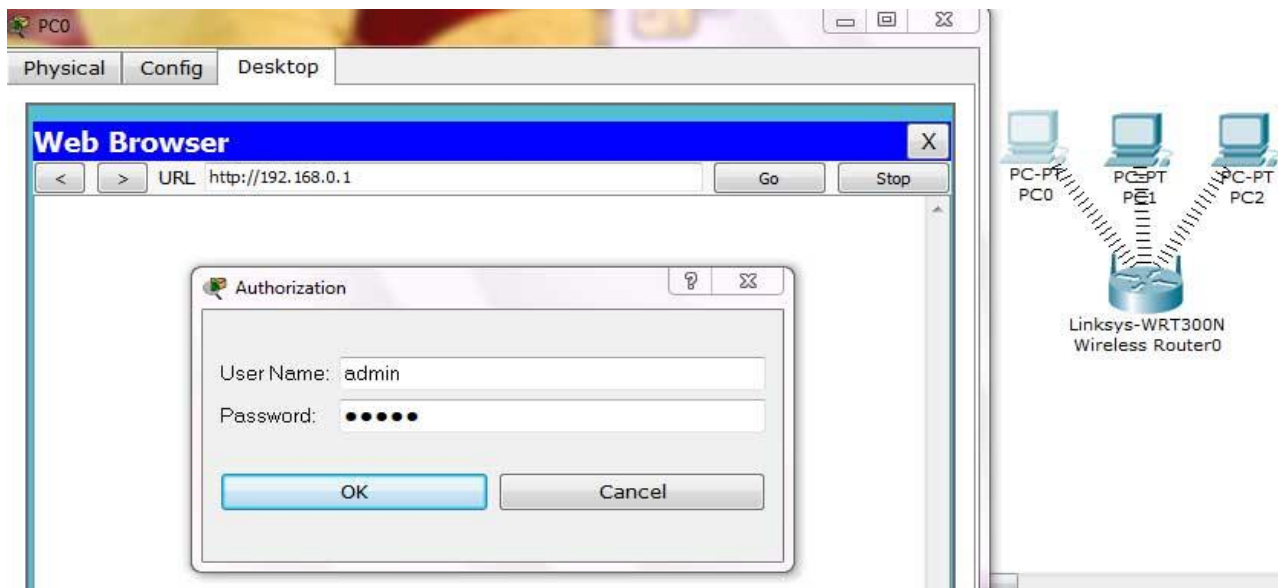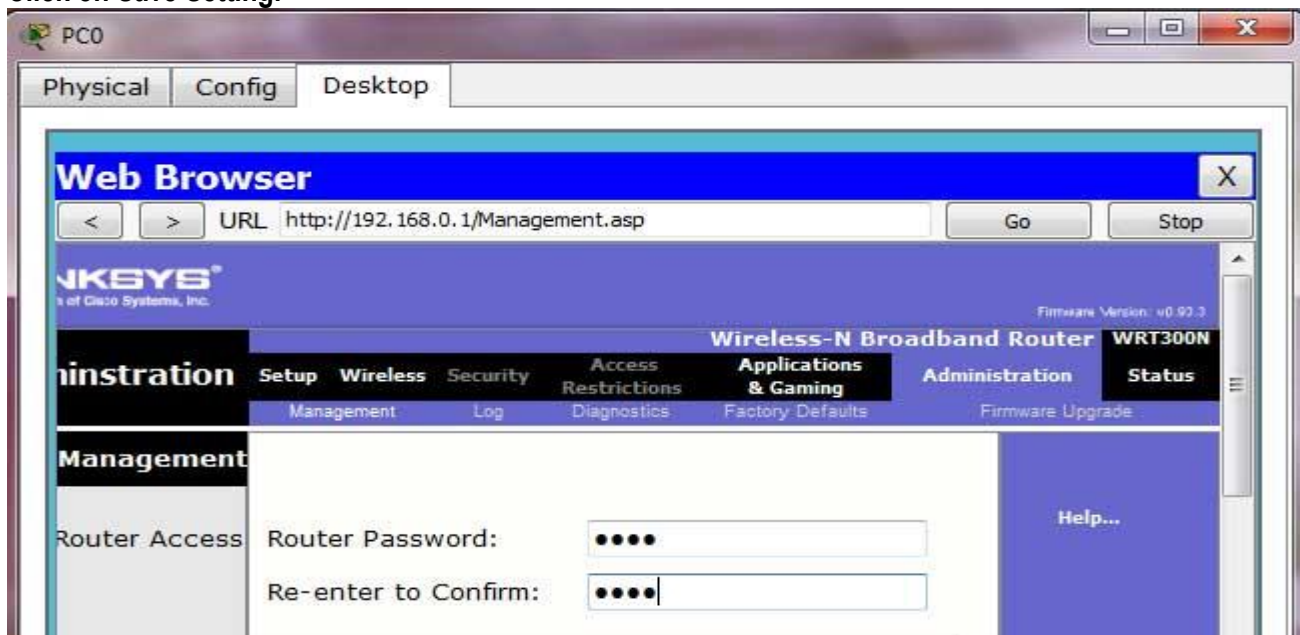
**This will bring GUI mode of Wireless router. Scroll down screen to Network Step and Select Disable DHCP**
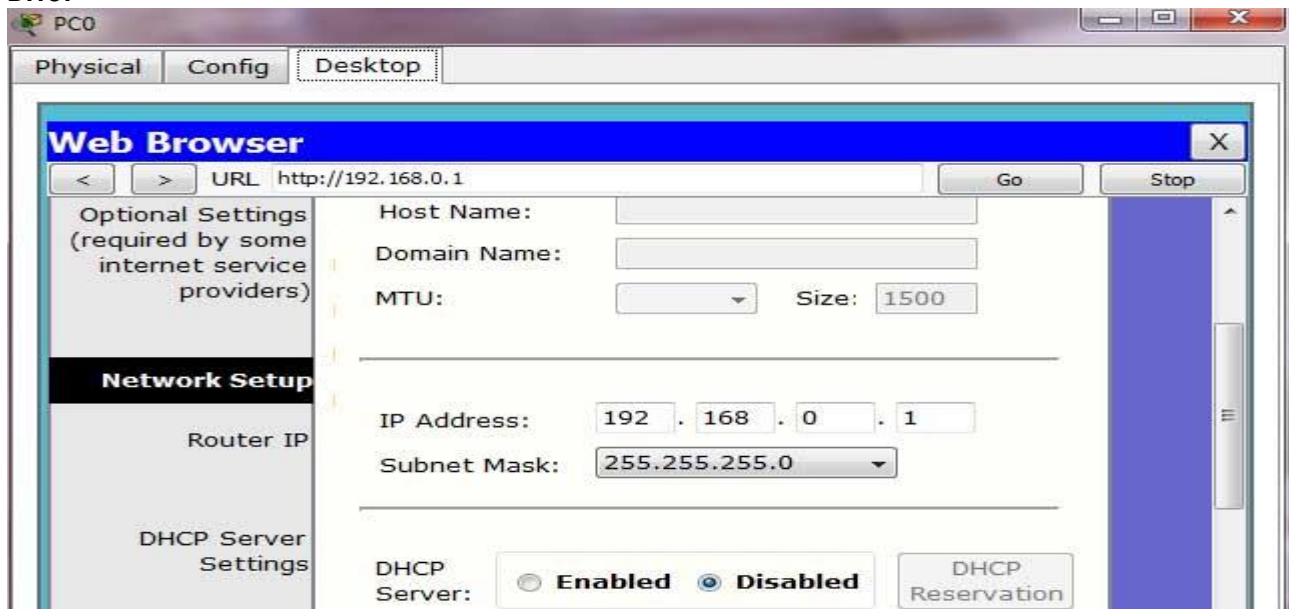
Go in end of page and click on save setting this will save setting click on continue for further setting
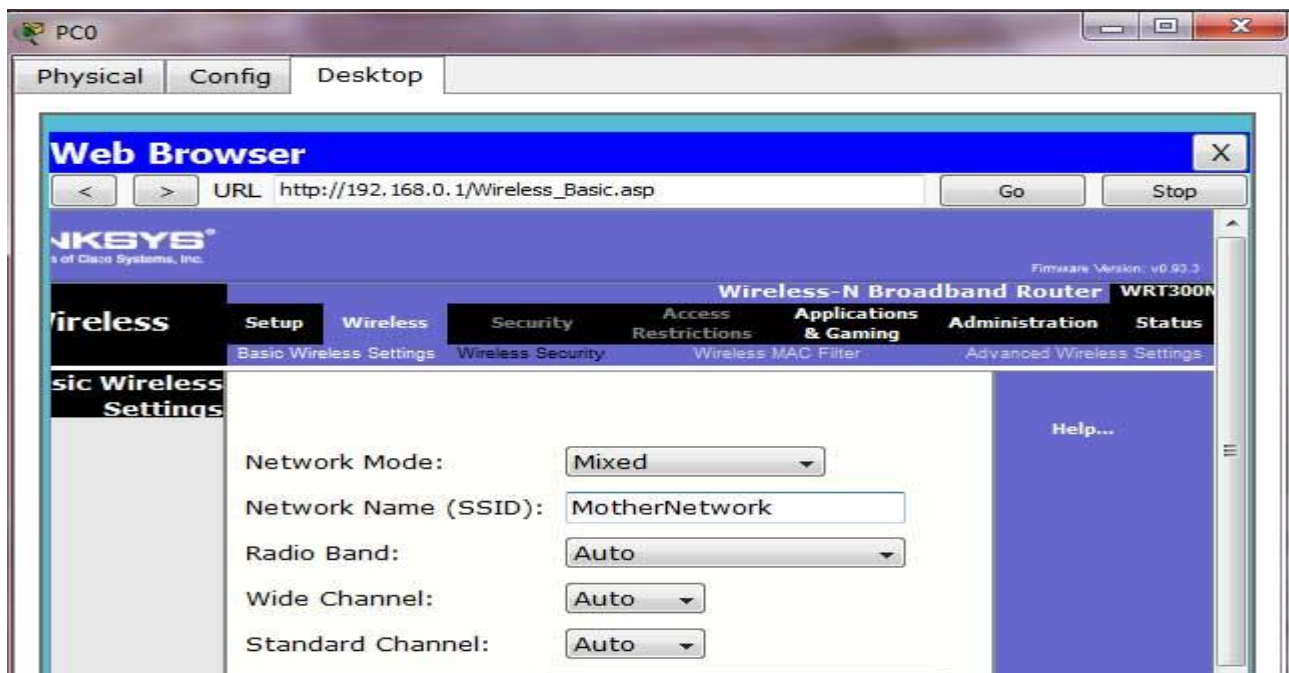
Now select Administration from top Manu and change password to test and go in the end of page and Click on Save Setting.
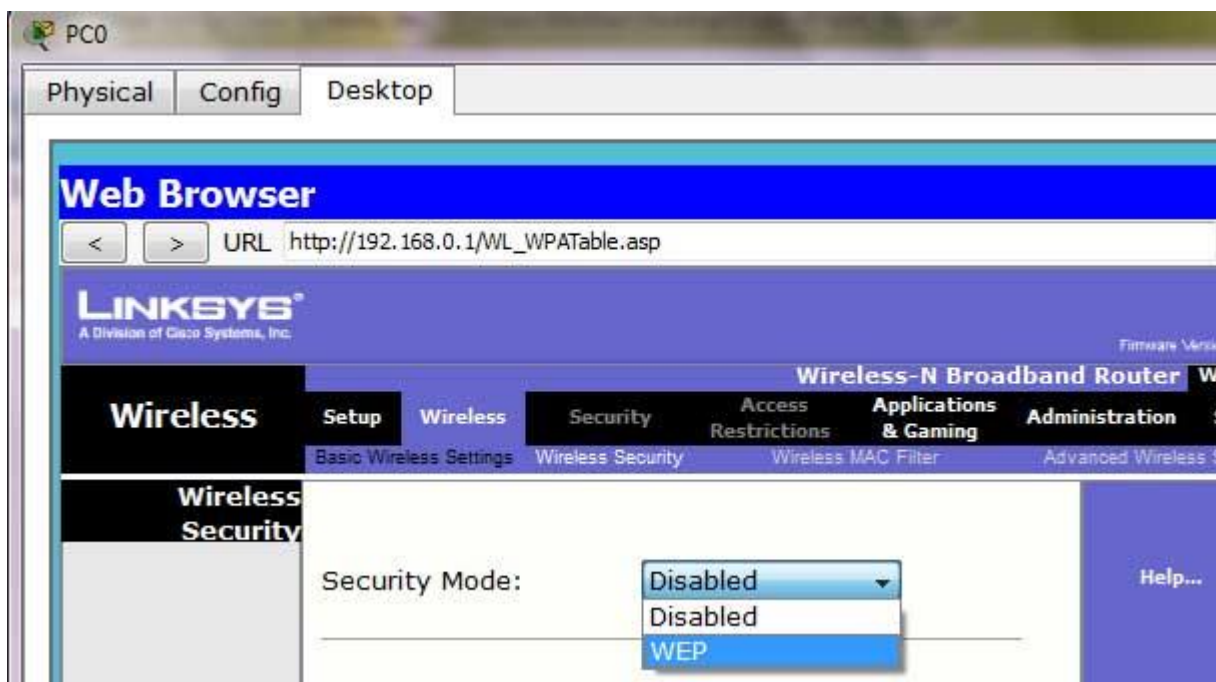

Click on continue for further setting. This time it will ask you to authenticate again give new password test this time
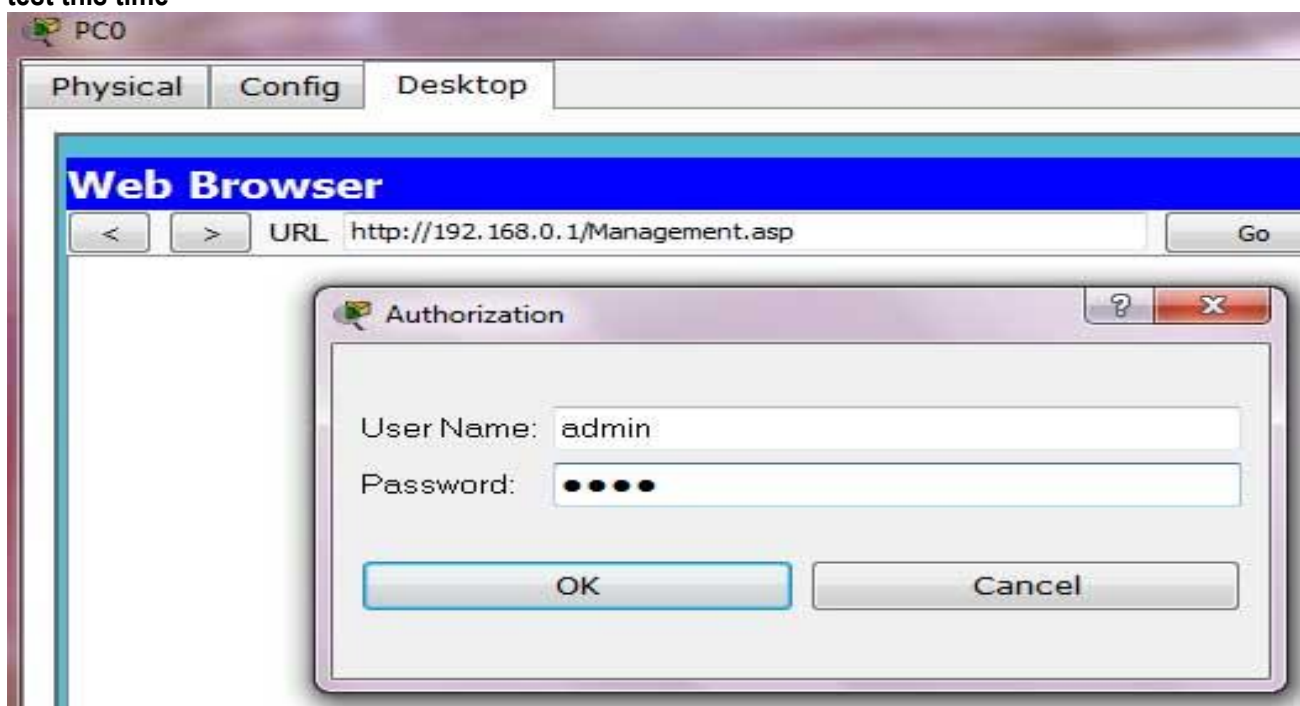
Now click on wireless tab and set default SSID to MotherNetwork

Now Select wireless security and change Security Mode to WEP

Set Key1 to 0123456789

**Again go in the end of page and Click on Save Setting**
Now we have completed all given task on Wireless router. Now configure the static IP on all three PC's
Double click on pc select Desktop tab click on IP configuration select Static IP and set IP as given below.

PC	IP	Subnet Mask	Default Gateway
PC0	192.168.0.2	255.255.255.0	192.168.0.1
PC1	192.168.0.3	255.255.255.0	192.168.0.1
PC2	192.168.0.4	255.255.255.0	192.168.0.1

Now it's time to connect PC's from Wireless router. To do so click PC select Desktop click on PC Wireless
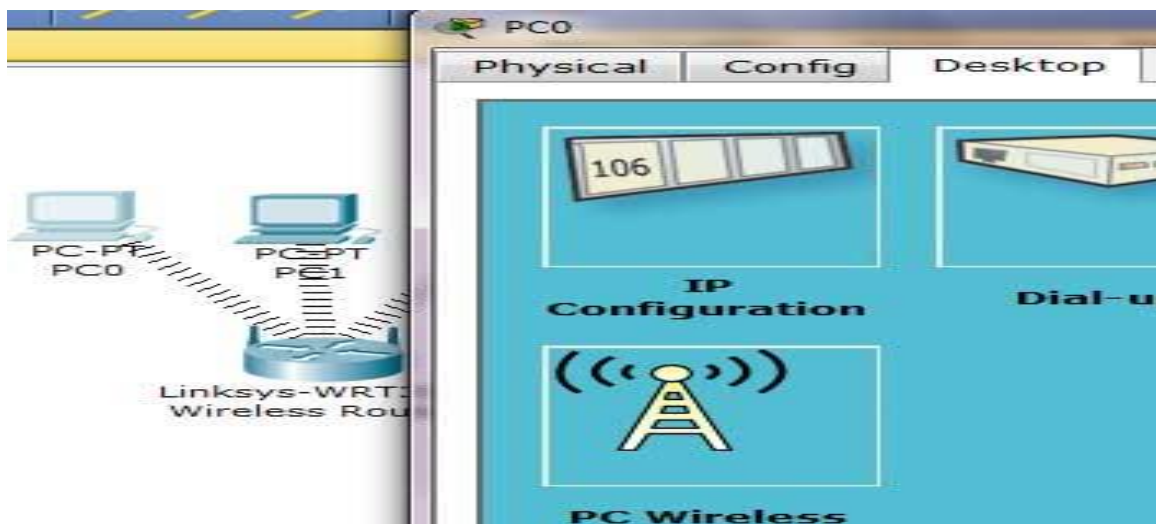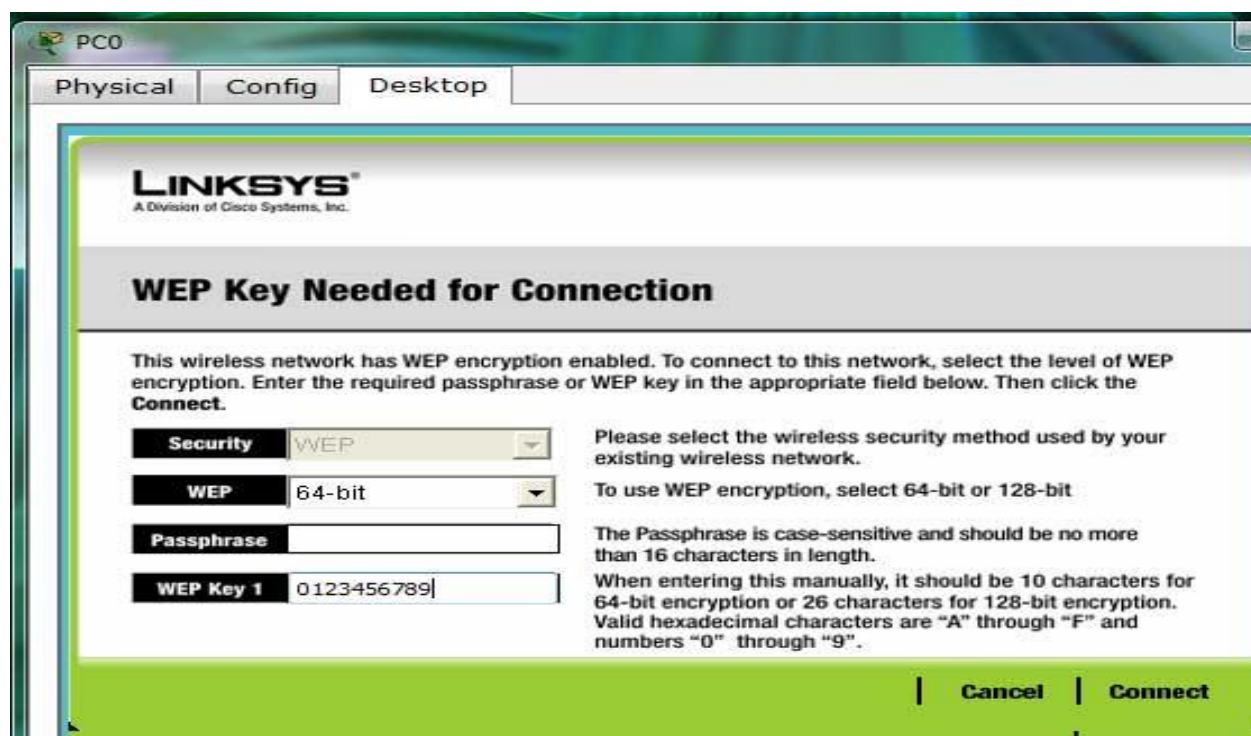
Click on connect tab and click on Refresh button
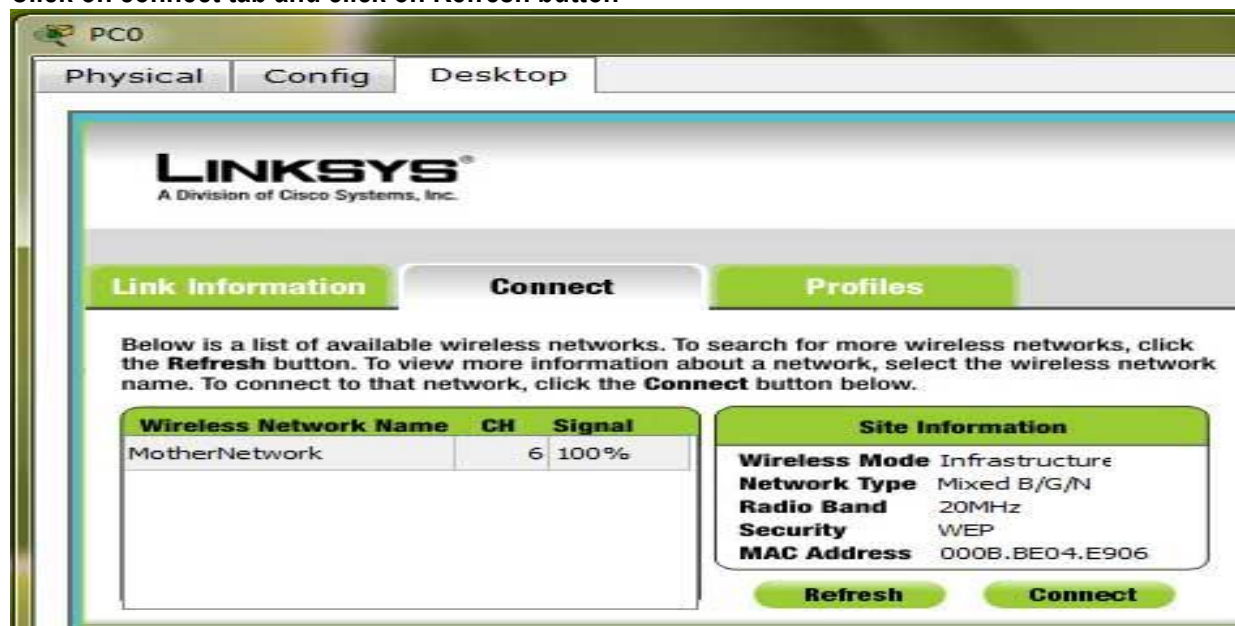
As you can see in image that Wireless device is accessing MotherNetwork on CH 6 and signal strength is 100%. In left side you can see that WEP security is configured in network. Click on connect button to connect MotherNetwork

It will ask for WAP key insert 0123456789 and click connect

It will connect you with wireless router.

As you can see in image below that system is connected. And PCI card is active.

Repeat same process on PC1 and PC2.

Exercise:

Simulate the below topology.