Practical No 4

Aim: Using Packet Tracer, create a basic network of one server and two computers and two mobile / movable devices using appropriate network wire. And verify the connectivity

Theory:

A Wireless Access Point (WAP) is a networking device that allows wireless-capable devices to connect to a wired network. Instead of using wires and cables to connect every computer or device in the network, installing WAPs is a more convenient, more secure, and cost-efficient alternative.

Setting up a wireless network provides a lot of advantages and benefits for you and your small business.

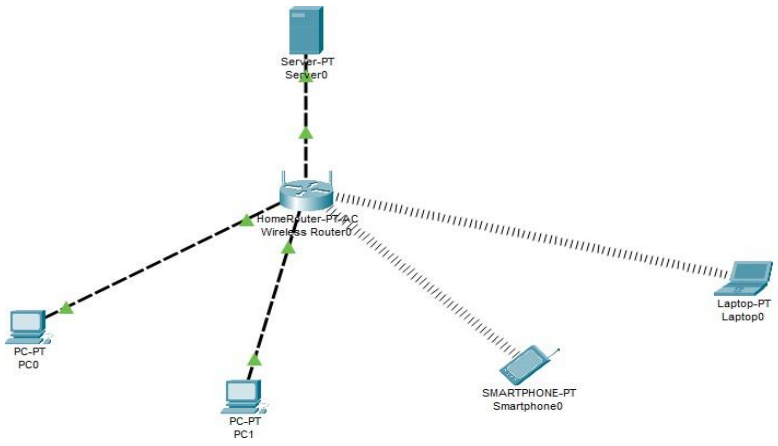
1) It is easier to set up compared to setting up a wired network.
2) It is more convenient to access.
3) It is less complicated to add new users in the network.
4) It gives users more flexibility to stay online even when moving from one area in the office to another.
5) Guest users can have Internet access by just using a password.
6) Wireless network protection can be set up even if the network is visible to the public by configuring maximum wireless security.
7) Segmentation of users, such as guests and employees, is possible by creating Virtual Local Area Networks (VLANs) to protect your network resources and assets.

There are different purposes of setting up a wireless network using a WAP.

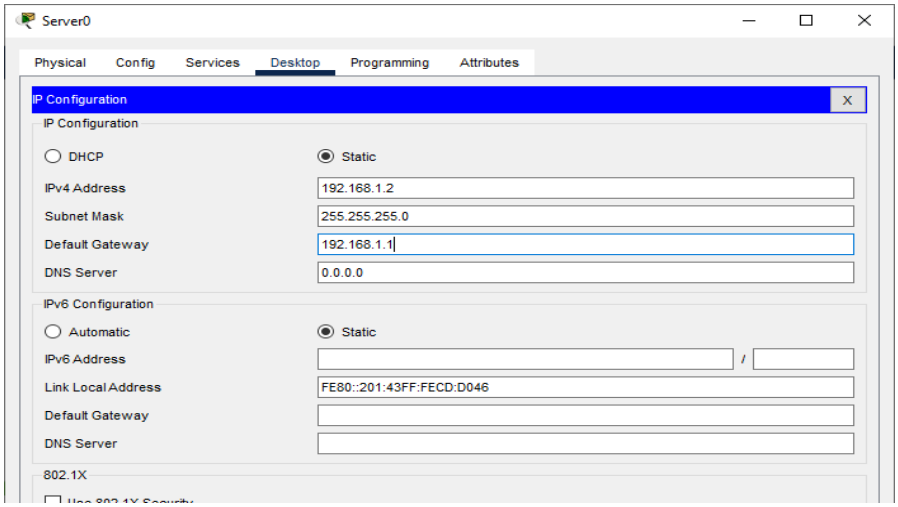
With a WAP, the following can be done:

1) Create a wireless network within your existing wired network.
2) Extend the signal range and strength of your wireless network to provide complete wireless coverage and get rid of dead spots especially in larger office spaces or buildings.
3) Accommodate wireless devices within a wired network.
4) Configure the settings of your wireless access points in one device.

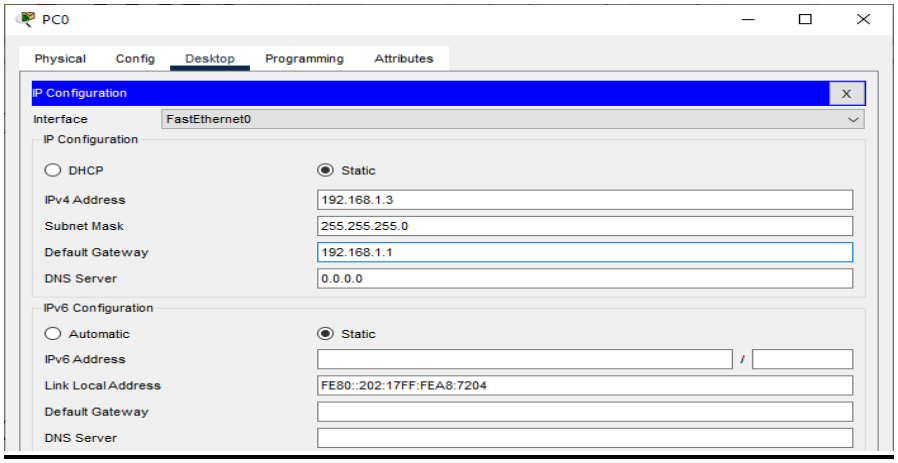
For the present case we use the following topology



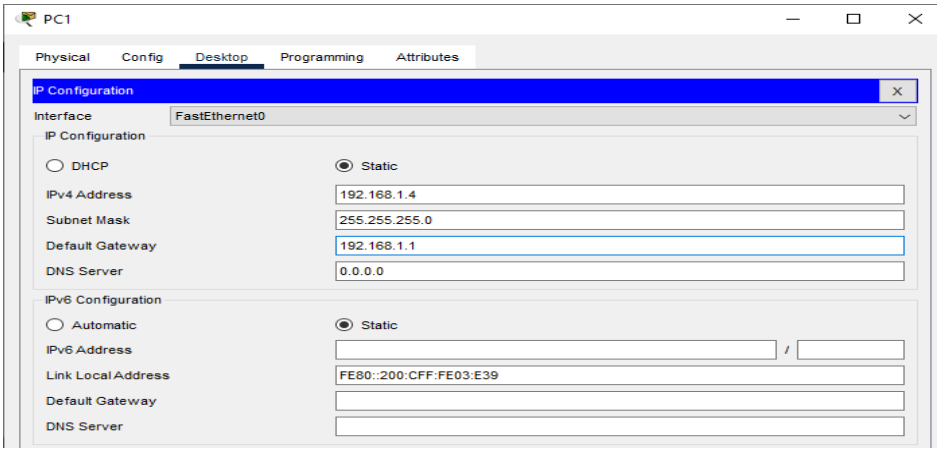
Configure the Server:



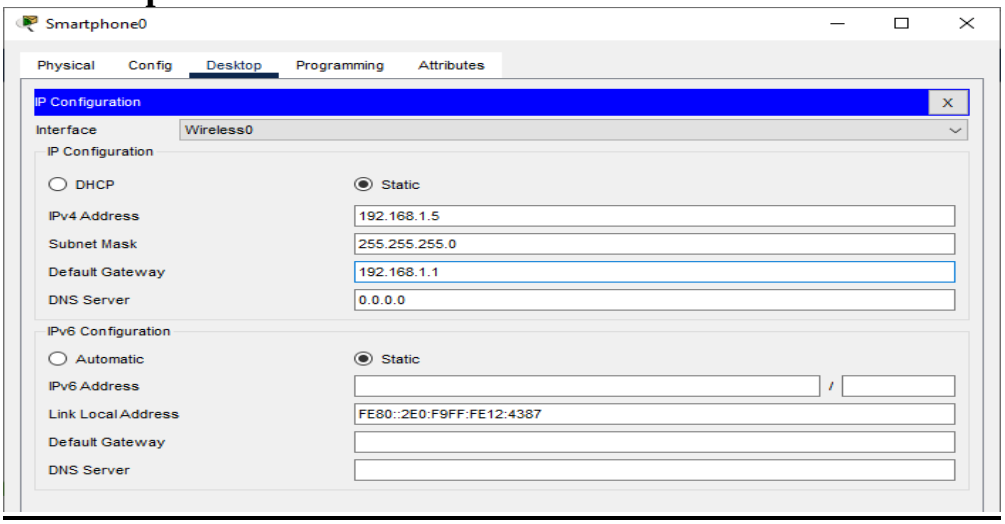
Configure PC0:



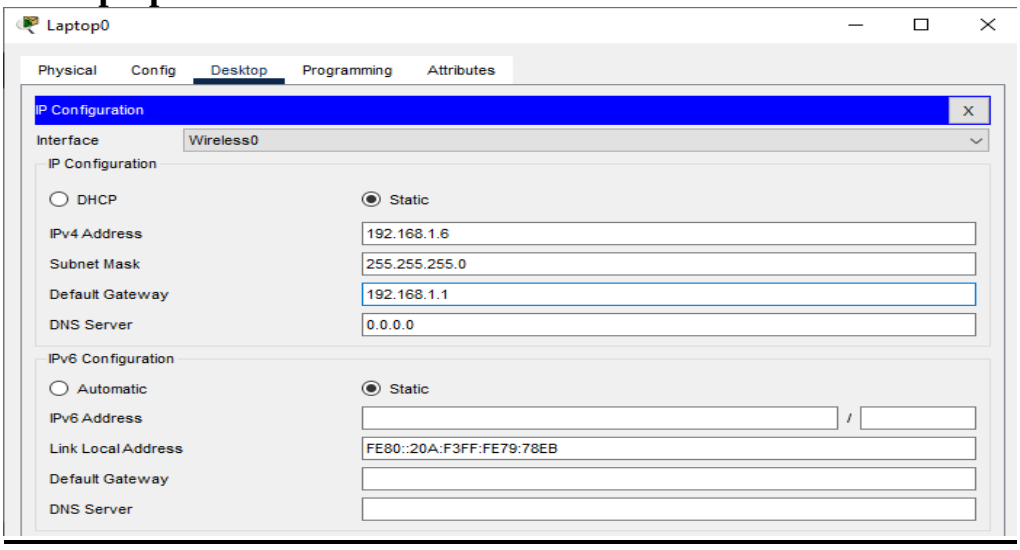
Configure PC1:



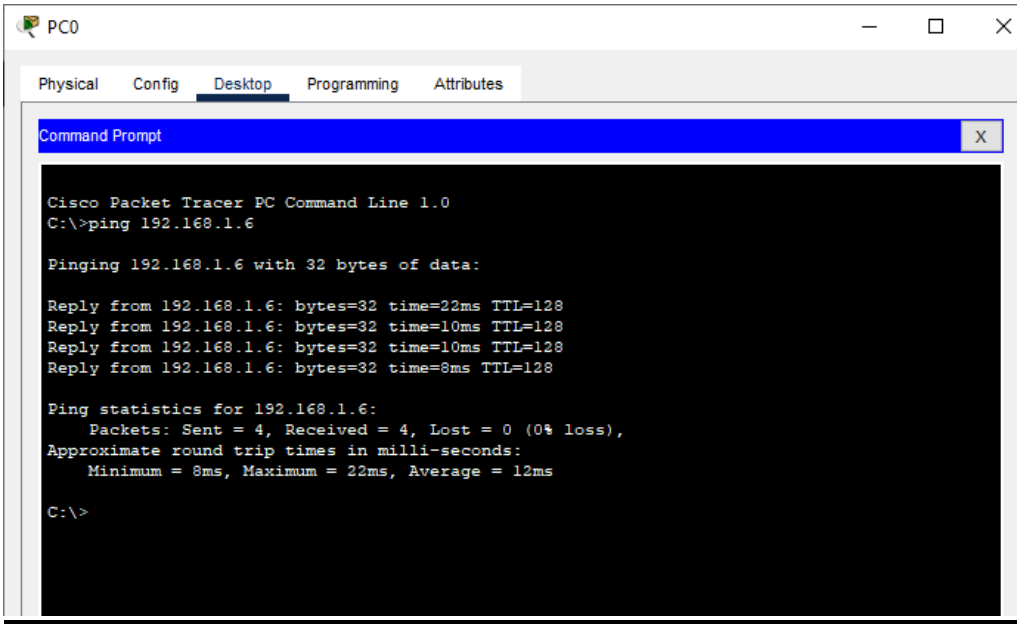
Configure Smartphone0:



Configure Laptop0:



Checking the connectivity (pinging laptop0 from PC0):



Similarly the ping message can be checked for all the devices

Result:

Hence the Connectivity of the network has been verified.

Click on the link below or scan the QR-code for the video demonstration

https://youtu.be/zvBKvkY8-nA