No of the Experiment: 01

Name of the Experiment: To configure local area Network (wired).

Procedure:

Step1: Start

Step2: Open Cisco Packet Tracer.

Step3: Take end device: PC0, PC1, PC2, PC3. Network device: Switch. Then use the wires to connect the devices

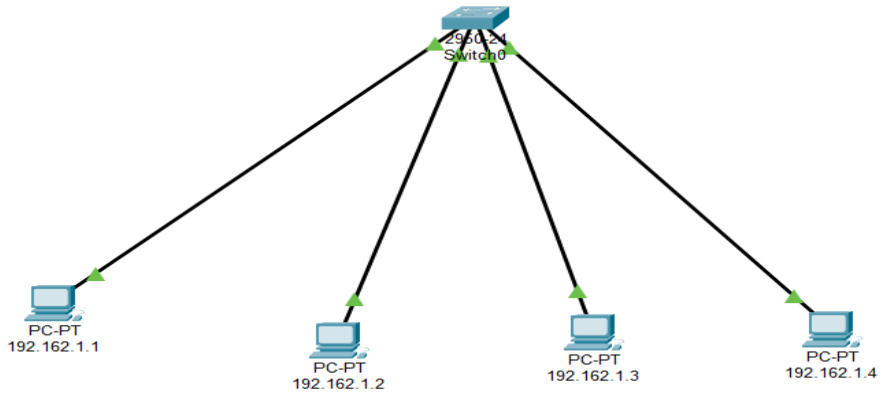


Figure:1

Step 4: Configure IP address for all the devices. IP address can't be same for different devices.

Click PC0>Desktop>IP Configuration

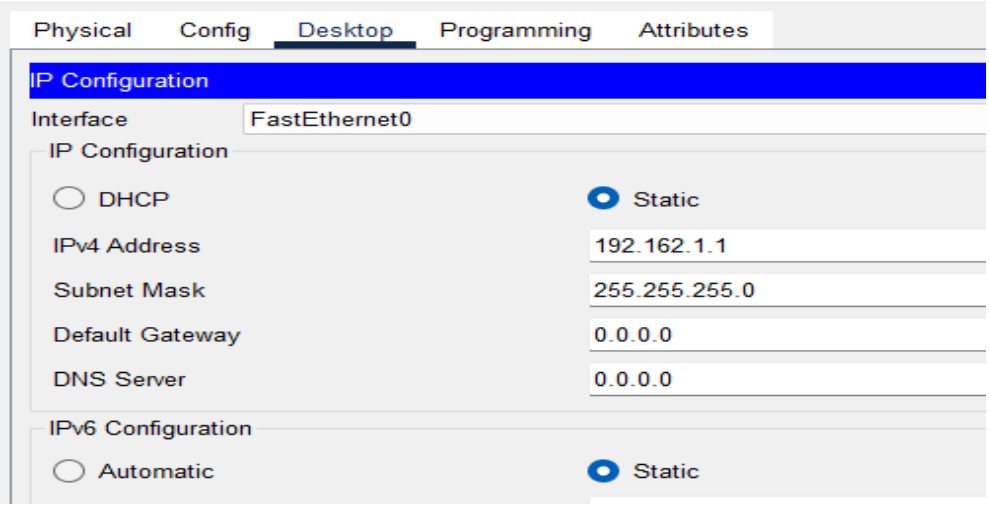


Figure-2 : PC0 IP configuration

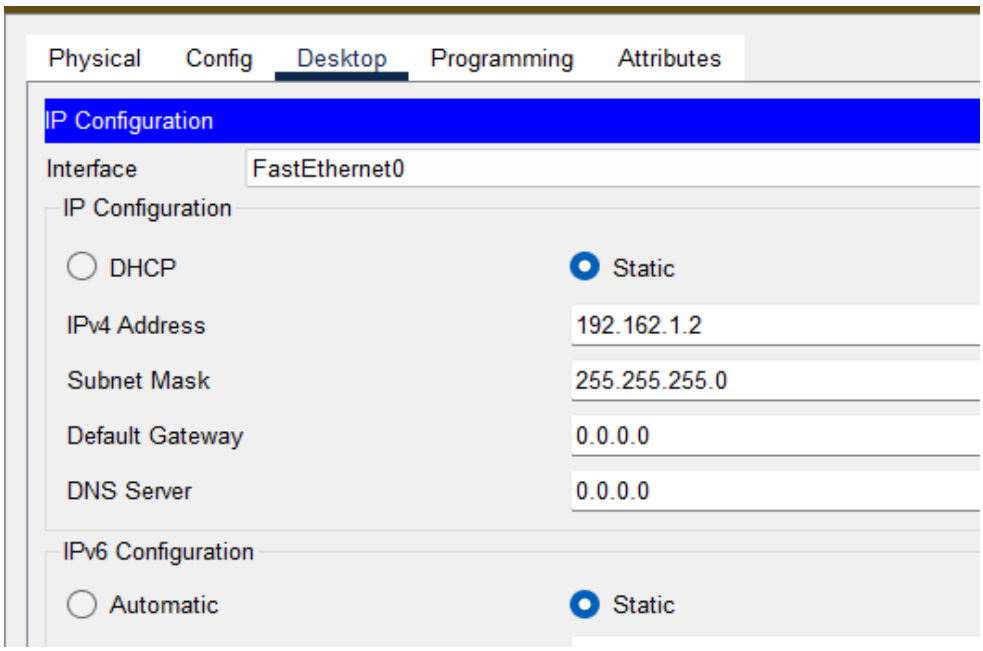


Figure 3: PC1 IP configuration

Step 5: Open command prompt for PC0 and send ping to PC1 using this command 'ping 192.162.1.2'.

Output :

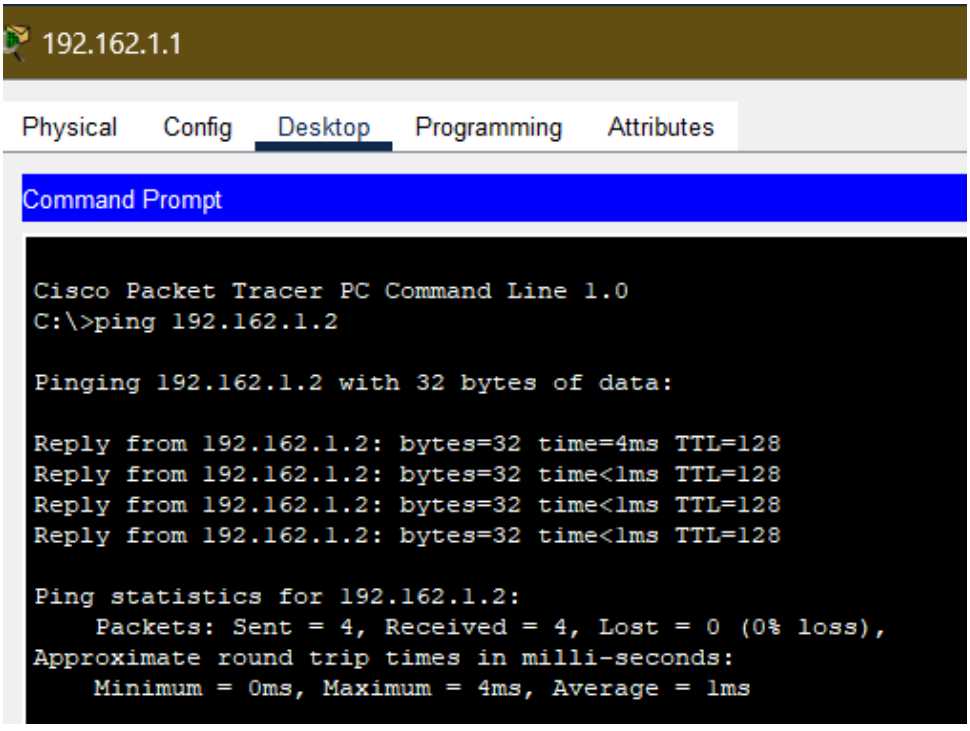


Figure 4: Output

No of the Experiment: 02

Name of the Experiment: To transfer packet through different network (static routing).

Procedure:

- ***Step1*:** Start
- **Step2:** Open Cisco Packet Tracer.
- ***Step3:*** Take [end device]: PC0, PC1, PC2, PC3,PC4,PC5, take [Network device]: Switch, router and use connection wires to connect the devices (copper straight through)

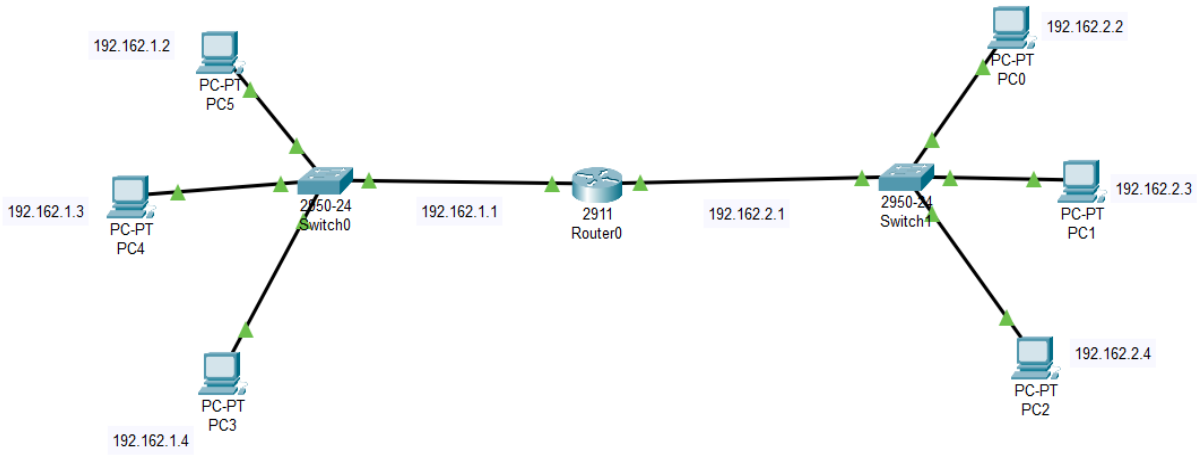


Figure 01: Setup Layout

- ***Step4:*** IP Configuration for PC4 & PC5.

  Click PC0>Desktop>IP Configuration

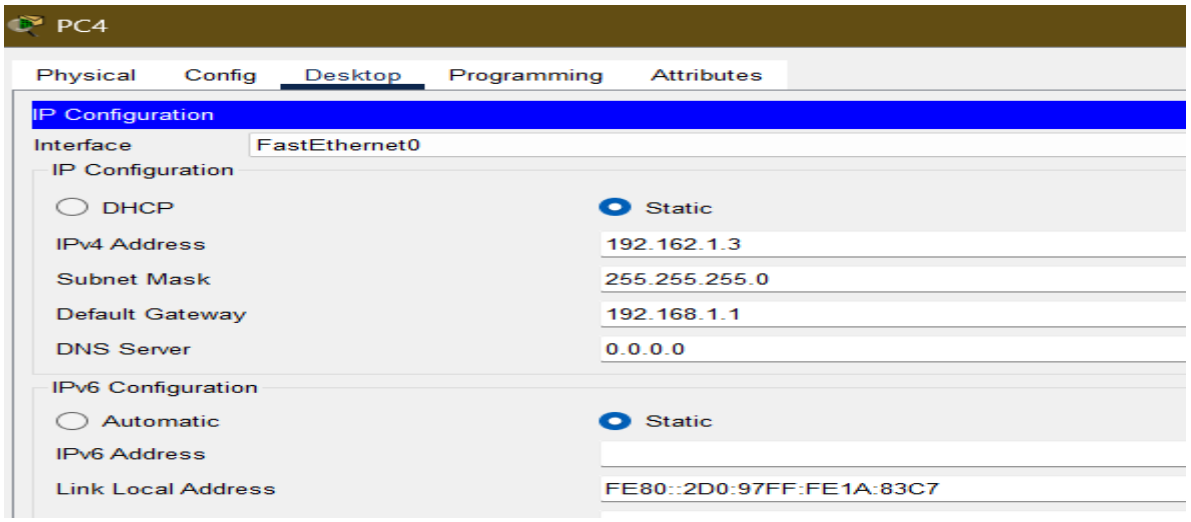


Figure 2: PC4 IP address and gateway setup

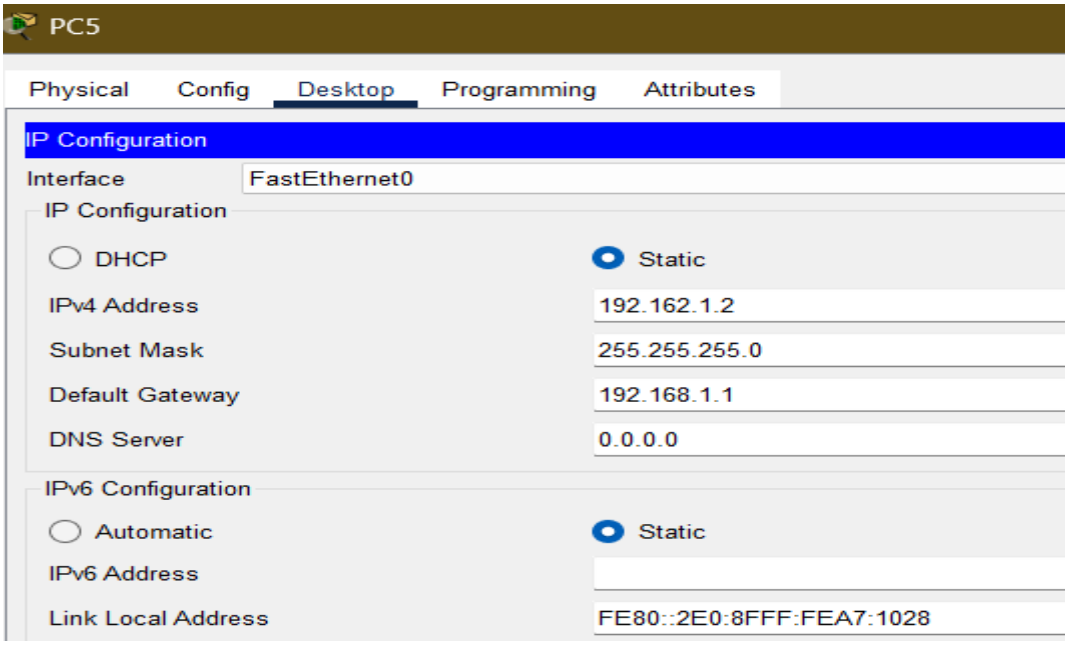


Figure 03: PC5 IP address and gateway setup

- ***Step5: Router Configuration***

  Click Router>CLI>now write command in Configuration dialog.

  Router>enable

  Router#configure terminal

  Router(config)#interface FastEthernet0/0

  Router(config-if)#ip address 192.162.1.1 255.255.255.0

  Router(config-if)#exit

  Router(config)#interface FastEthernet0/1

  Router(config-if)#no shutdown

  Router(config-if)#ip address 192.162.2.1 255.255.255.0

  Router(config-if)#exit

- ***Step6:*** Open Command Prompt of PC0 and Sent Ping to PC5

Output:

Packet Tracer PC Command Line 1.0

C:\>ping 192.162.1.2

Pinging 192.162.1.2 with 32 bytes of data:

Reply from 192.162.1.2: bytes=32 time=7ms TTL=127

Reply from 192.162.1.2: bytes=32 time<1ms TTL=127

Reply from 192.162.1.2: bytes=32 time<1ms TTL=127

Reply from 192.162.1.2: bytes=32 time<1ms TTL=127

Ping statistics for 192.162.1.2:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 0ms, Maximum = 7ms, Average = 1ms

C:\>

Experiment No: 03

Name of the Experiment: To configure dynamic IP routing through DHCP (Dynamic Host Configuration Protocol (DHCP).

Procedure:

- ***Step-01:*** First we setup a cisco packet tracer according with this figure 01.

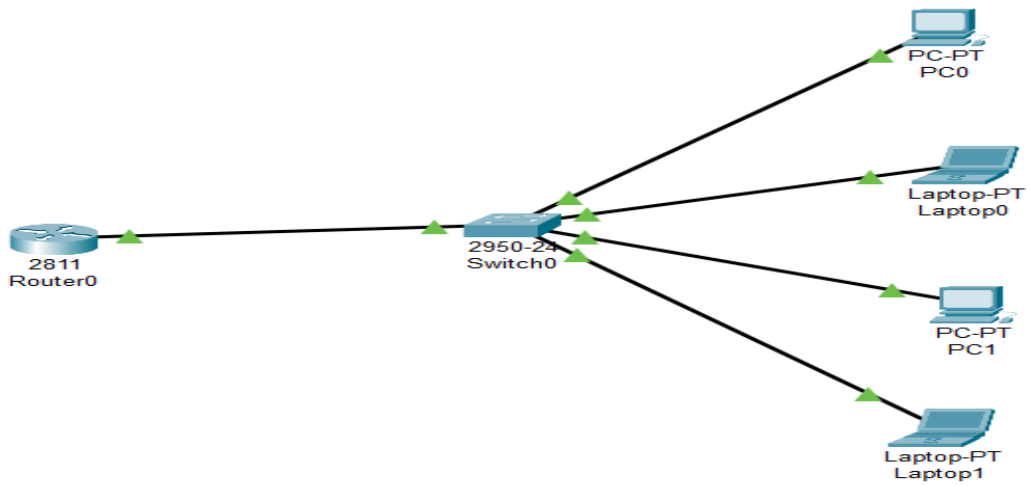


Figure 01: Setup Configuration

- ***Step-02: Router0 configuration***

  Click Router1>CLI>now write command in Configuration dialog.

  Router>enable

  Router#configure terminal

  Router(config)#ip dhcp pool netA

  Router(dhcp-config)#network 192.168.1.0 255.255.255.0

  Router(dhcp-config)#default-route 192.168.31.1

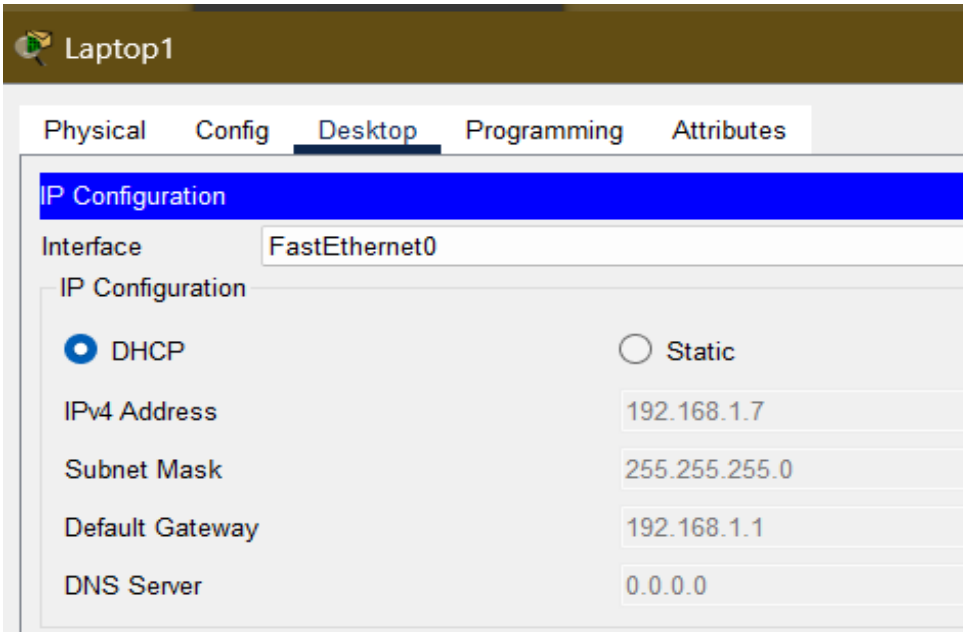
  Router(dhcp-config)#exit

  Router(config)#interface FastEthernet0/1

  Router(config-if)#ip address 192.168.1.1 255.255.255.0

  Router(config-if)#exit

- ***Step-03:*** Open PC0 IP-Configuration and click DHCP. It automatically take IP address from DHCP server.



The other PC's also take IP address dynamically from DHCP server.

- ***Step-04:*** Open Command Prompt of PC0 and Sent Ping to PC1

Packet Tracer PC Command Line 1.0

C:\>ping 192.168.1.7

Pinging 192.168.1.7 with 32 bytes of data:

Reply from 192.168.1.7: bytes=32 time<1ms TTL=128

Reply from 192.168.1.7: bytes=32 time<1ms TTL=128

Reply from 192.168.1.7: bytes=32 time<1ms TTL=128

Reply from 192.168.1.7: bytes=32 time<1ms TTL=128

Ping statistics for 192.168.1.2:

Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),

Approximate round trip times in milli-seconds:

Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\