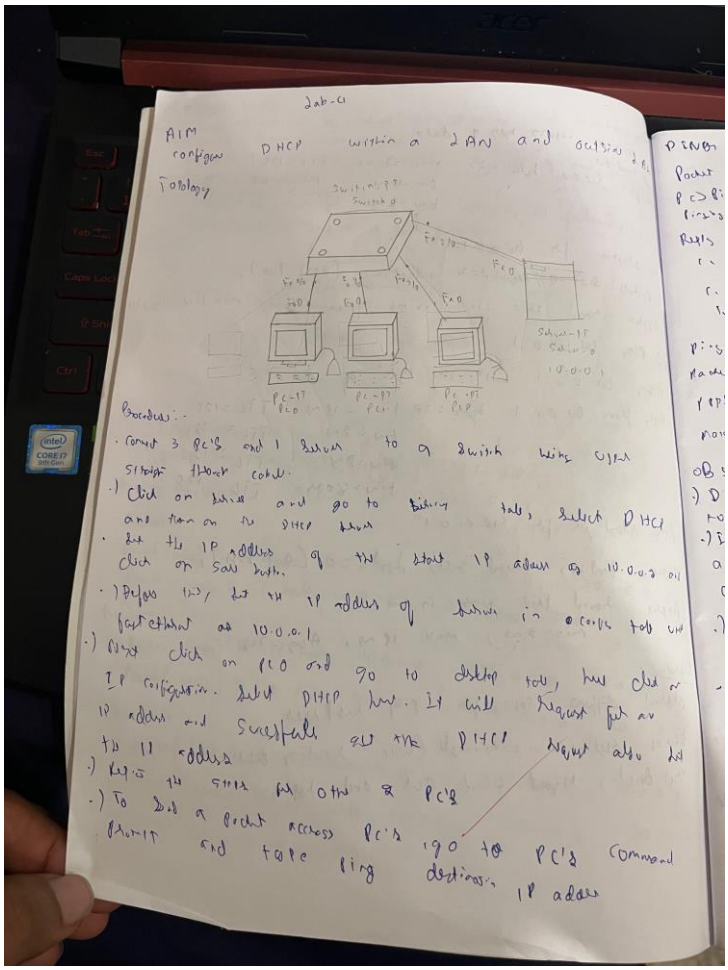
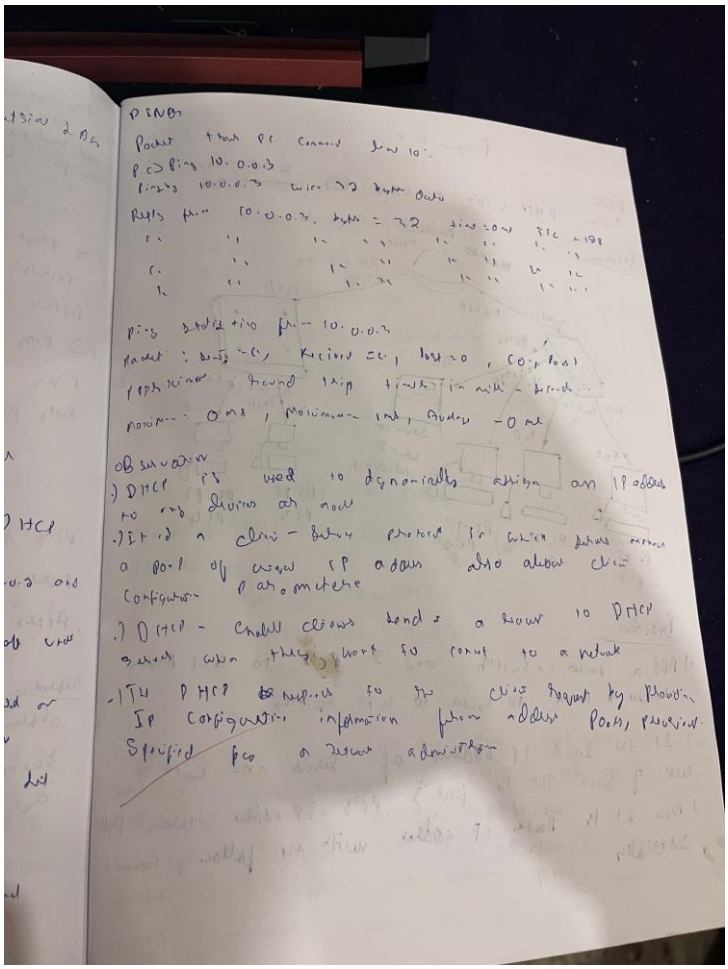
# WEEK 4

Configure DHCP within a LAN and outside LAN.

OBSERVATION:





PING

Packet that PC Command line to.

PC>Ping 10.0.0.3

Pinging 10.0.0.3 with 32 bytes Data

Reply from 10.0.0.3: bytes = 32 time=0ms TTL=128

Ping statistics for 10.0.0.3

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

Approximate round trip times in milli-seconds

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

OBSERVATION

1) DHCP is used to dynamically assign an IP address to end devices on a network

2) It is a client-server protocol in which servers manage a pool of unique IP address and also allow client configuration parameters

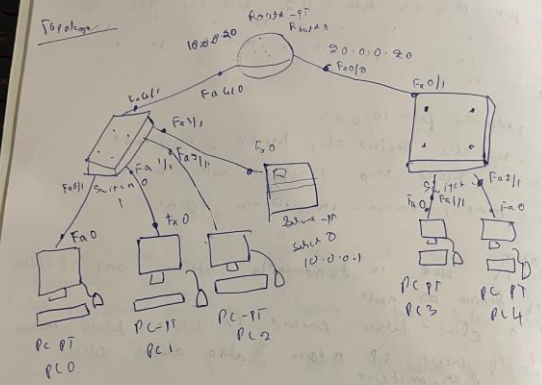
3) DHCP - Enabled clients send a query to DHCP server when they want to connect to a network

4) The DHCP server responds to the client request by providing IP configuration information from address pools, preserving specified IPs or retaining addresses

Program 4.9

Aim: Configure DHCP within a LAN and Outside flow

Topology

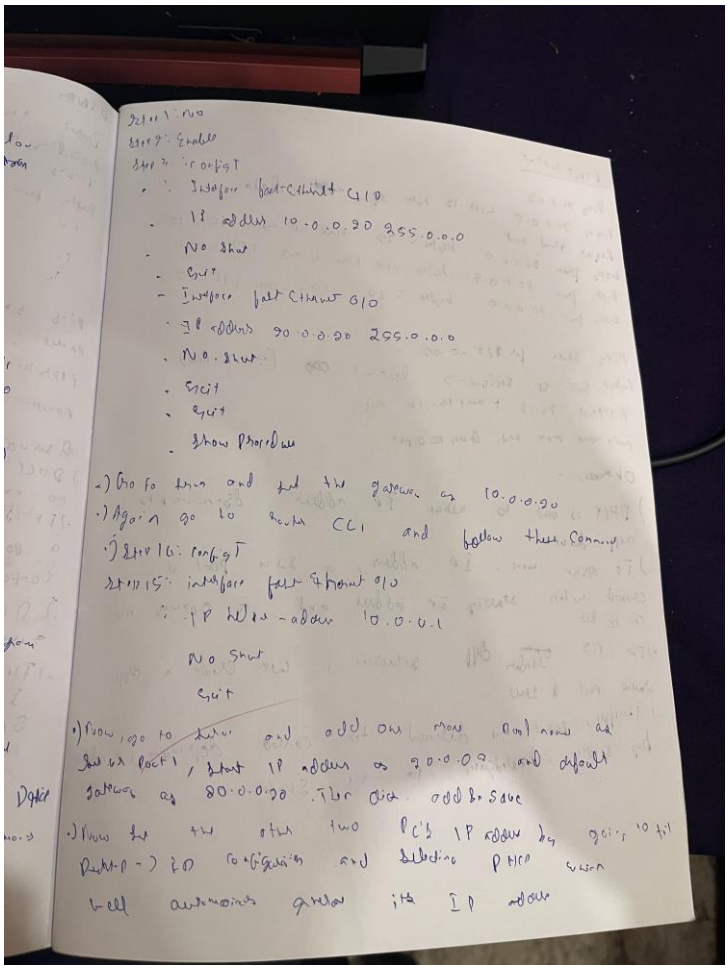


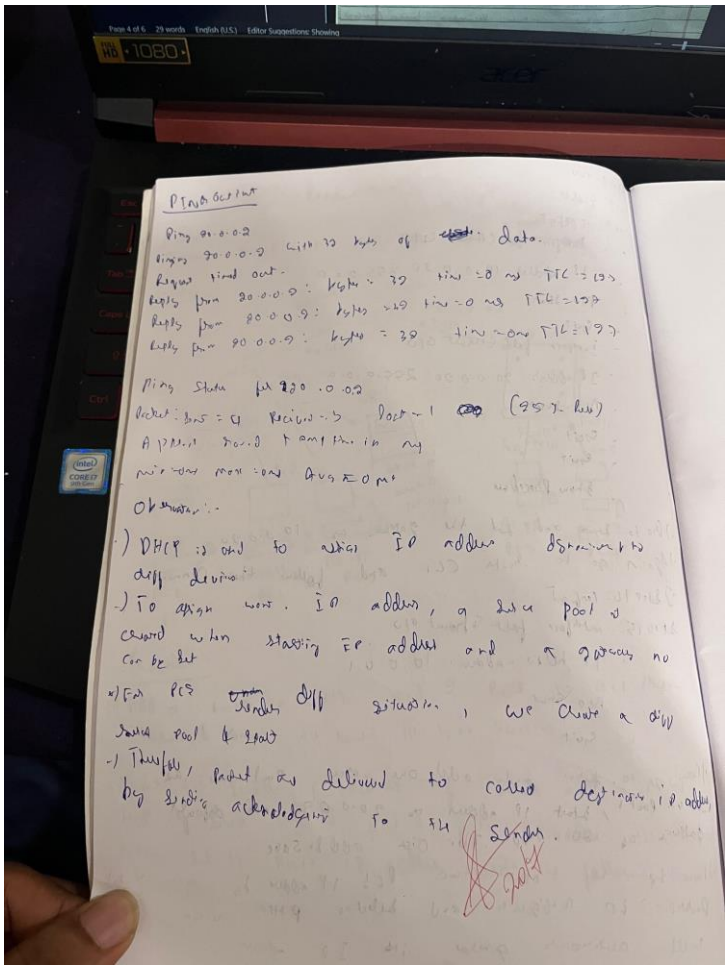

Procedure:

1) Add a Router, a Switch and 2 PC's to Cisco Packet Tracer Network & connect the routers to both Switches

2) Set the Server IP address of Server and with the help of Server set the first 3 PC's IP address through DHCP dynamically

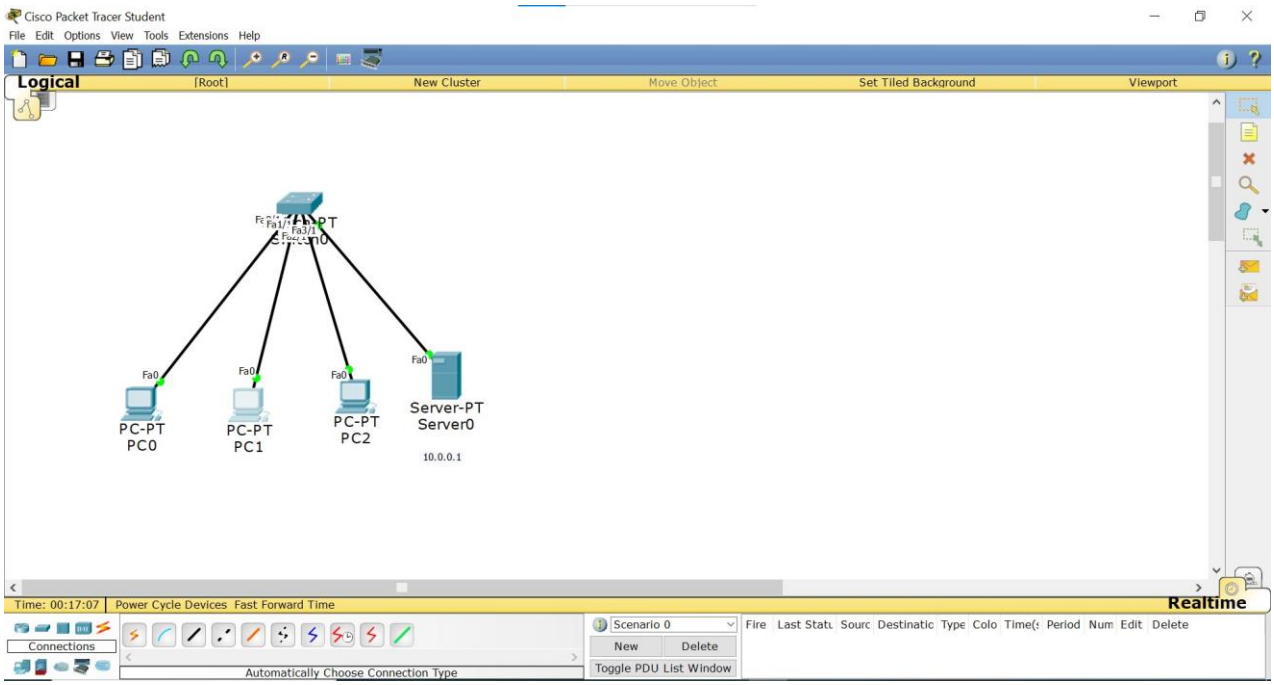
3) Now set the Router IP address with the following commands



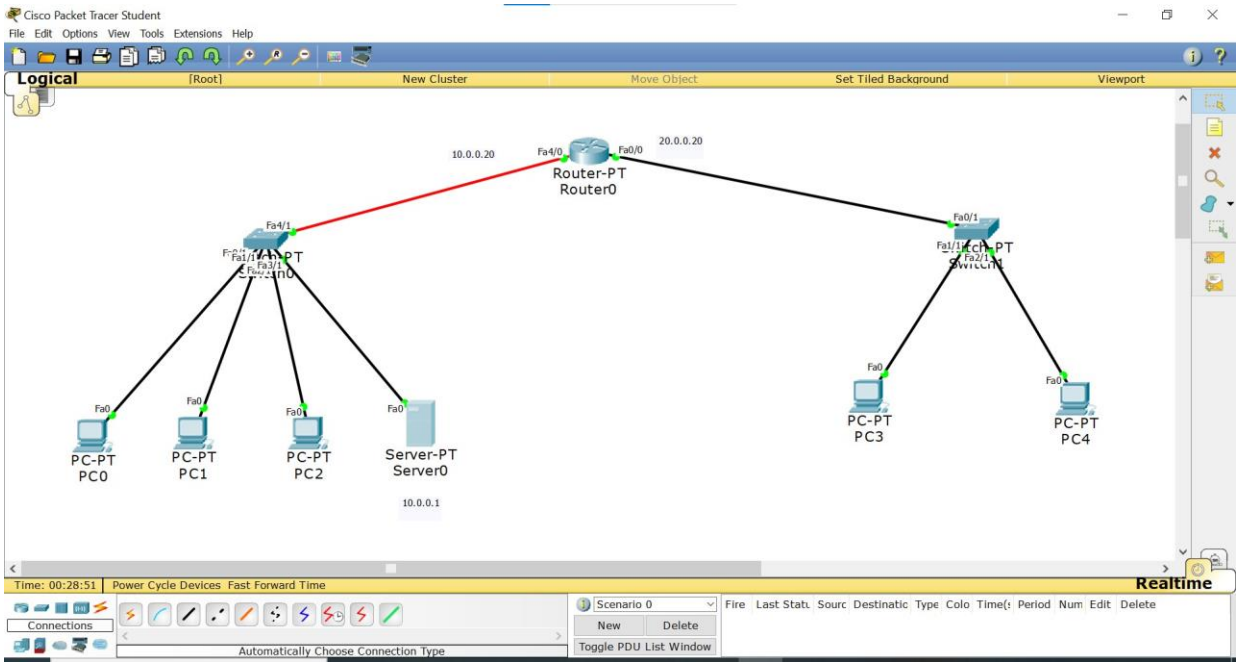


TOPOLOGY:

PROGRAM 4.1:

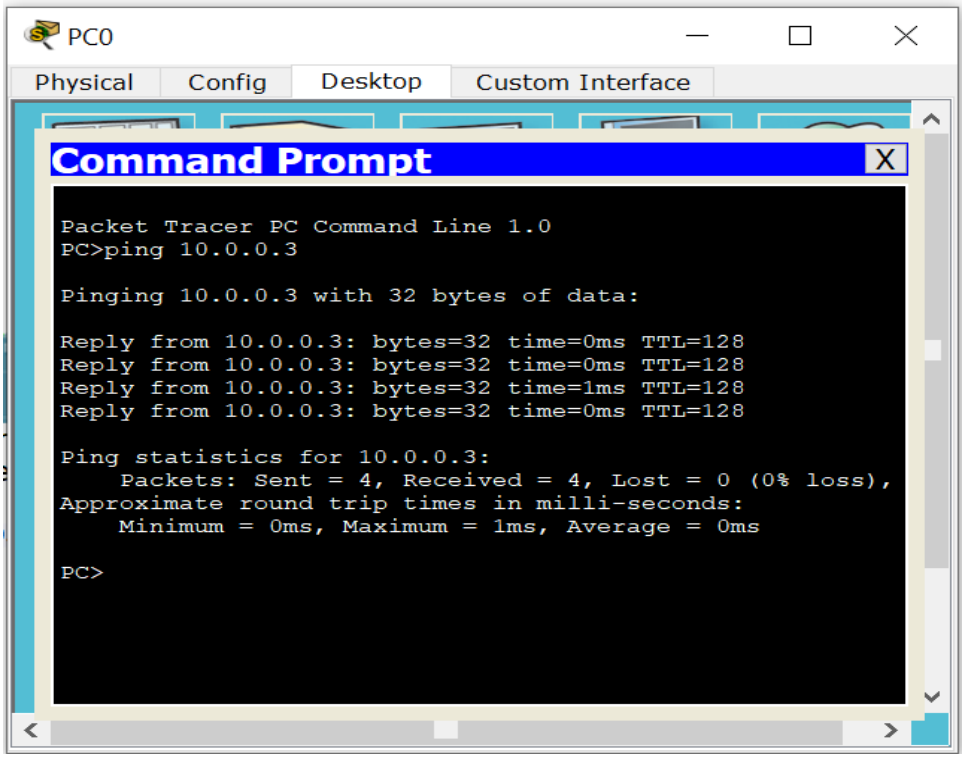


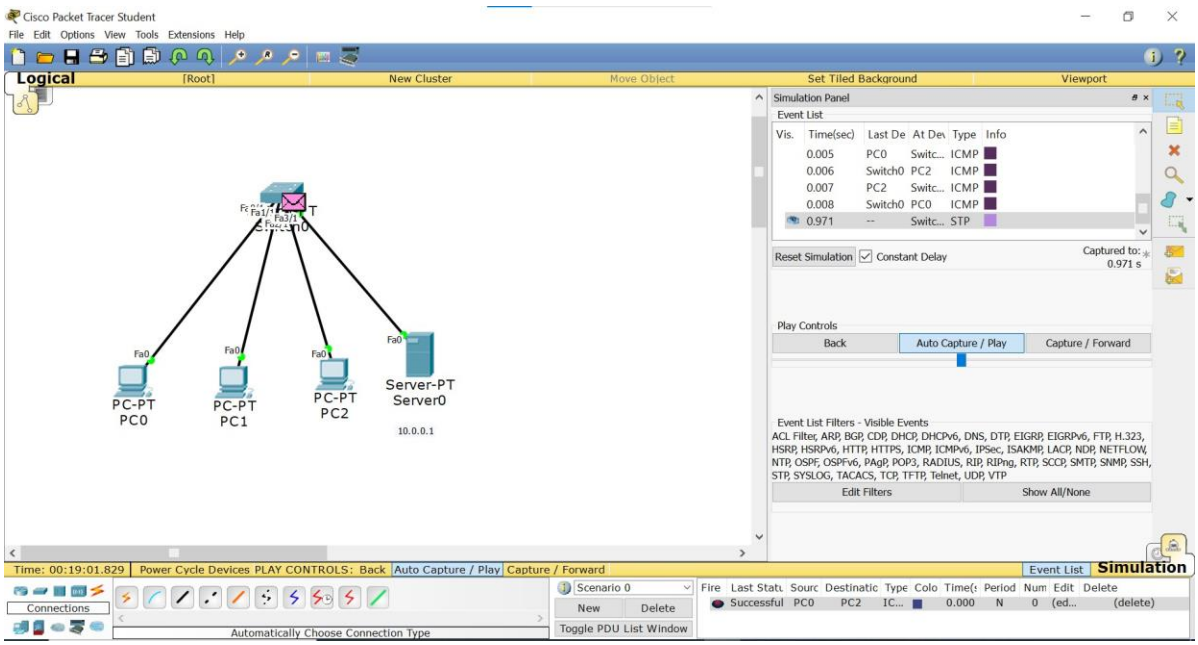

PROGRAM 4.2:




OUTPUT:

PROGRAM 4.1:




PROGRAM 4.2:

PC0

Physical | Config | Desktop | Custom Interface

## Command Prompt

```
Packet Tracer PC Command Line 1.0
PC>ping 20.0.0.2

Pinging 20.0.0.2 with 32 bytes of data:

Request timed out.
Reply from 20.0.0.2: bytes=32 time=0ms TTL=127
Reply from 20.0.0.2: bytes=32 time=0ms TTL=127
Reply from 20.0.0.2: bytes=32 time=0ms TTL=127

Ping statistics for 20.0.0.2:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

PC>ping 20.0.0.3

Pinging 20.0.0.3 with 32 bytes of data:

Request timed out.
Reply from 20.0.0.3: bytes=32 time=0ms TTL=127
Reply from 20.0.0.3: bytes=32 time=0ms TTL=127
Reply from 20.0.0.3: bytes=32 time=0ms TTL=127

Ping statistics for 20.0.0.3:
    Packets: Sent = 4, Received = 3, Lost = 1 (25% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms

PC>
```