

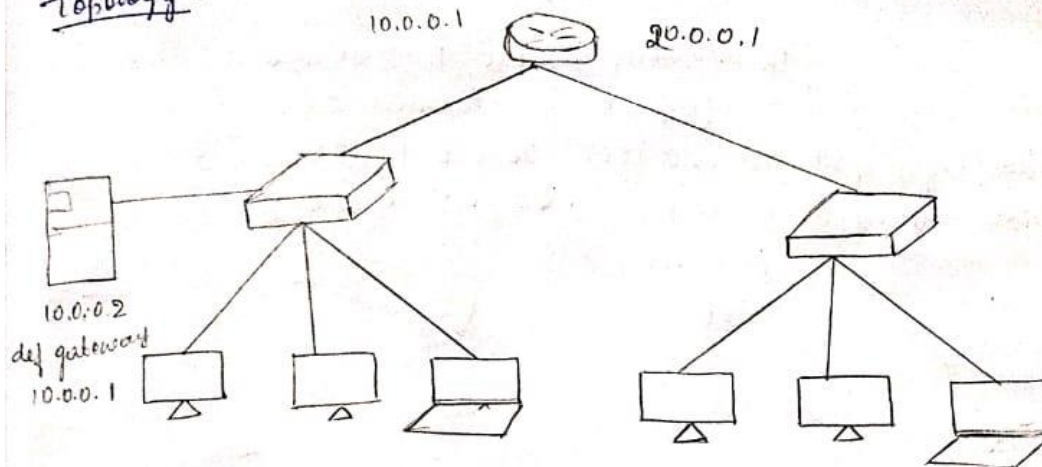
PROGRAM4: Configure DHCP within a LAN and outside LAN.

OBSERVATION:

13/11/24

a) Configure DHCP within a LAN and outside a LAN  
Aim :- to configure DHCP within a LAN and outside LAN

Topology :



Procedure :

1. Select a switch from device type selection.
2. add 3 end devices on workbench and one server.
3. connect all this to switch through copper straight through cable.
4. Repeat same topology to set other network without d/h server.
5. Place on router on workbench and connect 2 switches to it.

\* In server:

set IP address 10.0.0.1

later set IP address 10.0.0.2 (for 2 switches set).

Default gateway: 10.0.0.1

Router Configuration:

Router> enable

Router # config terminal

```
Router (config-if) # interface fastethernet 4/0
Router (config-if) # ip address 10.0.0.1 255.0.0.0
Router (config-if) # ip helper-address 20.0.0.2
no shut
exit
```

```
Router (config-if) # ip address 20.0.0.1 255.0.0.0
Router (config-if) # interface fastethernet 0/0
Router (config-if) # ip address 20.0.0.1 255.0.0.0
Router (config-if) # ip helper-address 10.0.0.2
no shut
exit.
```

observation?

OK  
13/11/24

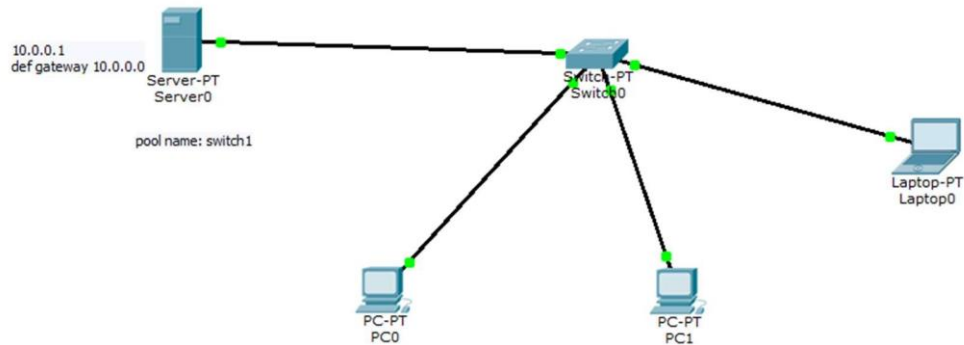
Observation :-

ping 10.0.0.4

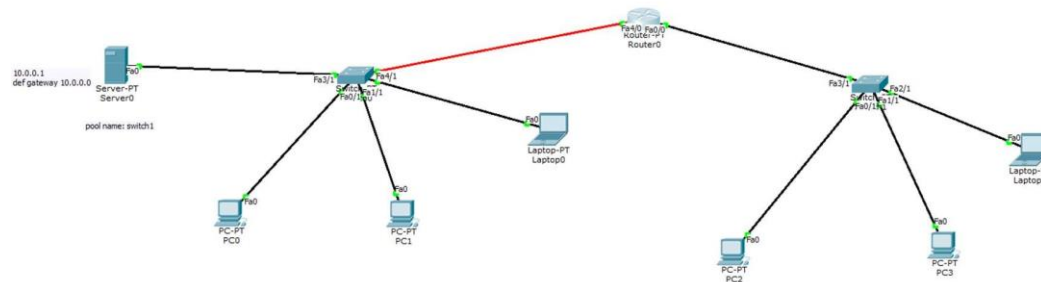
packets : sent=4, Received=4, Lost=0

## TOPOLOGY:

Within lan



## Outside lan



## OUTPUT:

```
PC0
Physical Config Desktop Custom Interface

Command Prompt
Packet Tracer PC Command Line 1.0
PC>ping 10.0.0.4

Pinging 10.0.0.4 with 32 bytes of data:

Reply from 10.0.0.4: bytes=32 time=0ms TTL=128
Reply from 10.0.0.4: bytes=32 time=0ms TTL=128
Reply from 10.0.0.4: bytes=32 time=0ms TTL=128
Reply from 10.0.0.4: bytes=32 time=0ms TTL=128

Ping statistics for 10.0.0.4:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

PC>ping 10.0.0.3

Pinging 10.0.0.3 with 32 bytes of data:

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