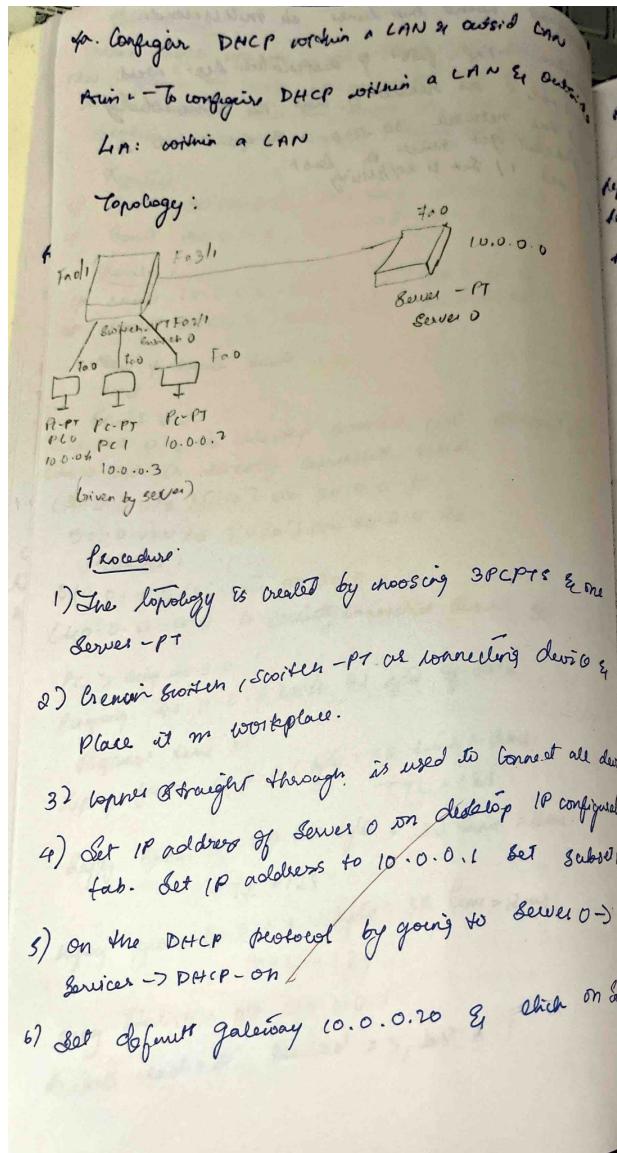


WEEK 4

Configure DHCP within a LAN and outside LAN.

OBSERVATION:



J K L

M

Ctrl

outside

PC > ring 10.0.0.2

pinging 10.0.0.2 with 32 bytes of data

Reply from 10.0.0.2 bytes = 32 = 1ms TTC = 128

Reply from 10.0.0.2 bytes = 32 time = 1ms TTC = 128

Reply from 10.0.0.2 bytes = 32 time = 0ms TTC = 128

Reply from 10.0.0.2 bytes = 32 time = 0ms TTC = 128

Reply from 10.0.0.2 bytes = 32 time = 0ms TTC = 128

Ping statistics for 10.0.0.2:

Packets sent = 4, received = 4, lost = 0 (0% loss)

Approximate round trip times in milliseconds

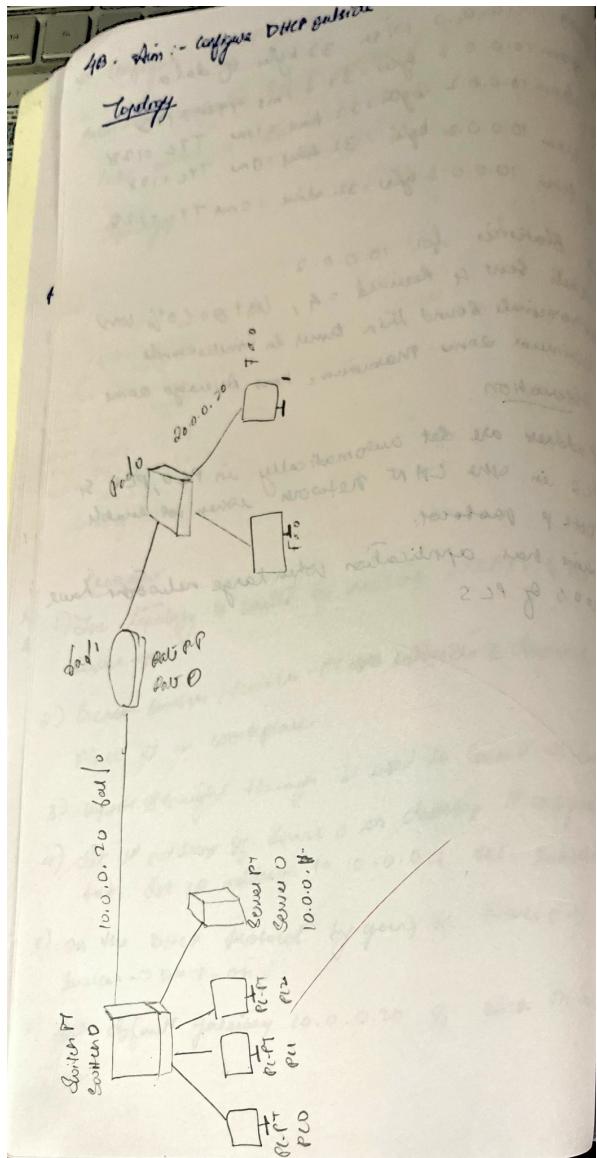
Minimum = 0ms Maximum = 1ms Average = 0ms

Observation

IP addresses are set automatically in PC0, PC1 & PC2 in the LAN network when we enable

DHC P protocol.

Time has application when large networks have
lots of PCs



Procedure :-

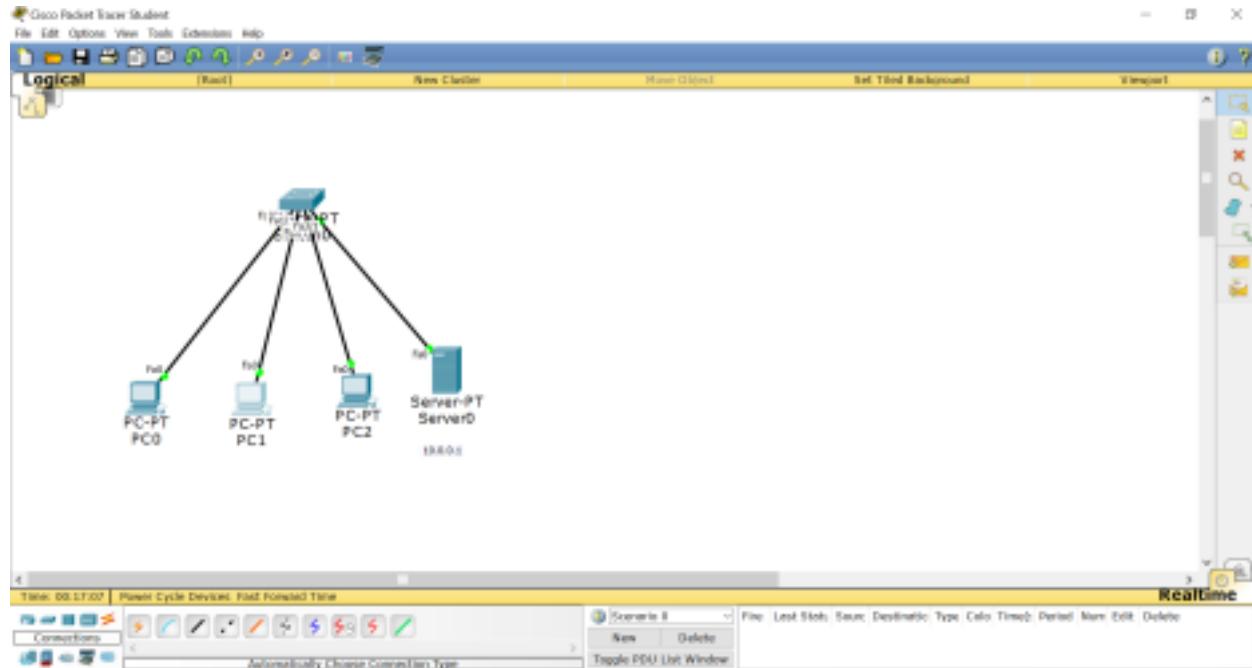
- 1) To the topology created in 1A, connect a Router (Router 0) in a straight staggered way.
- 2) Through Switch - PC Bridge, connect a Switch (Switch 0) to Router 0, connect Switch 1 to Router 0.
- 3) In Router 0, Set IP address Fa4/0 to 10.0.0.20 & Fa0/0 to 20.0.0.20.
- 4) In Router 0, interface fastethernet 0/0.
Router (config-if)# ip base address 10.0.0.1
Router (config-if)# no shut.
- 5) In Server 0 goto config > settings > gateway & set gateway 10.0.0.20.
- 6) Set Services to DHCP.
Start IP address to 20.0.0.2
- 7) In desktop mode of PLC 3 & PLC 4 select MCP & they will automatically be assigned IP address as 20.0.0.2 & 20.0.0.3.

Project part

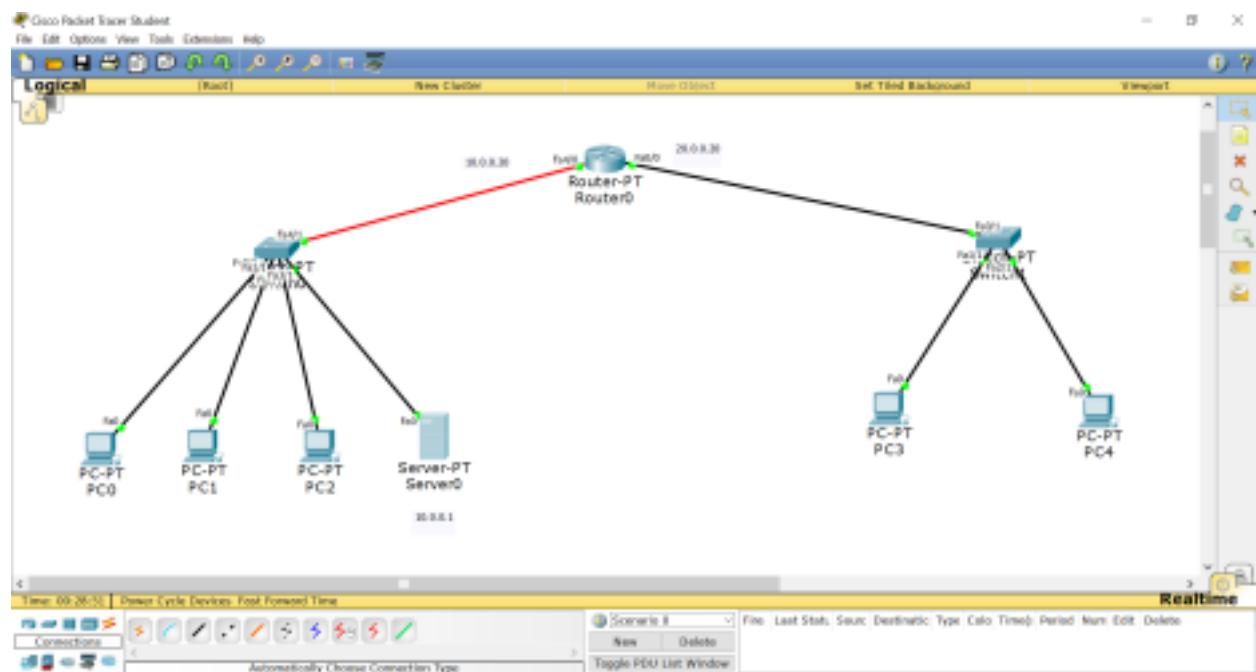
PC0
PC > ping 20.0.0.2
Pinging 20.0.0.2 with 32 bytes of data
Reply from 20.0.0.2 bytes=32 time=1ms TTL=127
Reply from 20.0.0.2 bytes=32 time=20ms TTL=127
Ping statistics for 20.0.0.2:

TOPOLOGY:

PROGRAM 4.1:



PROGRAM 4.2:



OUTPUT:

PROGRAM 4.1:

PC0

Physical Config Desktop Custom Interface

Command Prompt

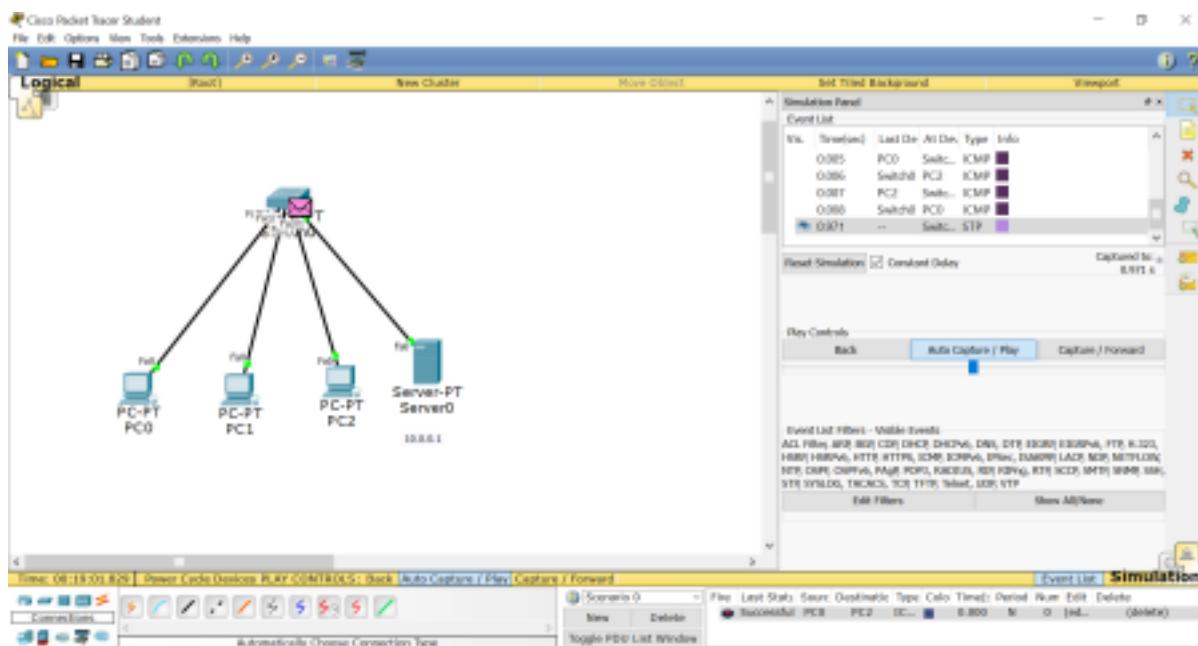
```
Packet Tracer PC Command Line 1.0
PC>ping 10.0.0.3

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=1ms 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),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

PC>
```



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>
```

