LAB WEEK 5

a) To configure IP addresses of the host using DHCP server present within the LAN.
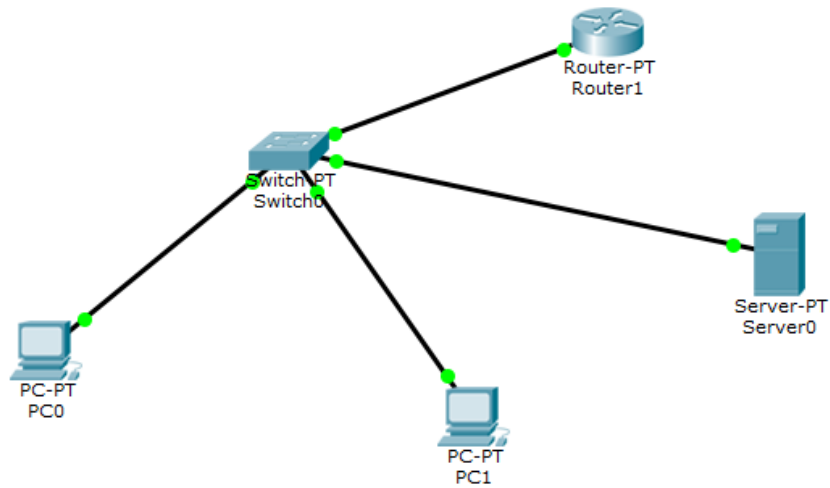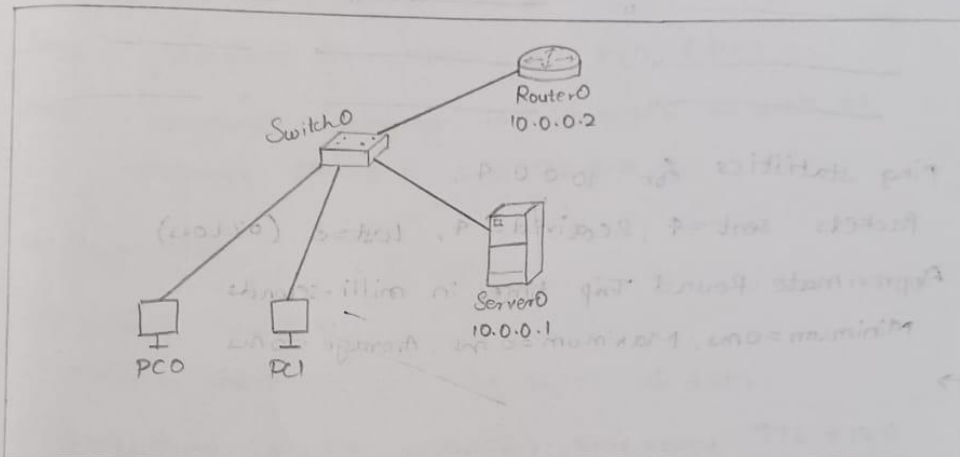

Figure 1: Topology

Figure 2: Output

a] To Configure IP addresses of the host using DHCP server present within the LAN.

b] To configure IP addresses of the host using DHCP server present in different LAN.

a]

* Topology:

* Configuration Steps:

Step 1: Select 2 PCs, ~~one~~ 1 server, 1 switch and 1 router.

Step 2: In the server, go to Config /FastEthernet0, turn the port status On.

Step 3: Enter the IP address as "10.0.0.1"

Step 4: In the Router, go to Config /FastEthernet 0/0, turn the port status on.

Step 5: Enter the IP address as "10.0.0.2"

Step 6: Select Server and go to services, here you see some protocols, in that ~~Select~~ select DHCP

Step 7: In that select DHCP service on, Default gateway as 10.0.0.2 & DNS server as 10.0.0.1 Save the process.

Step 8: Select PC0, in that select DHCP, the IP addresses will automatically load, do same for PC1
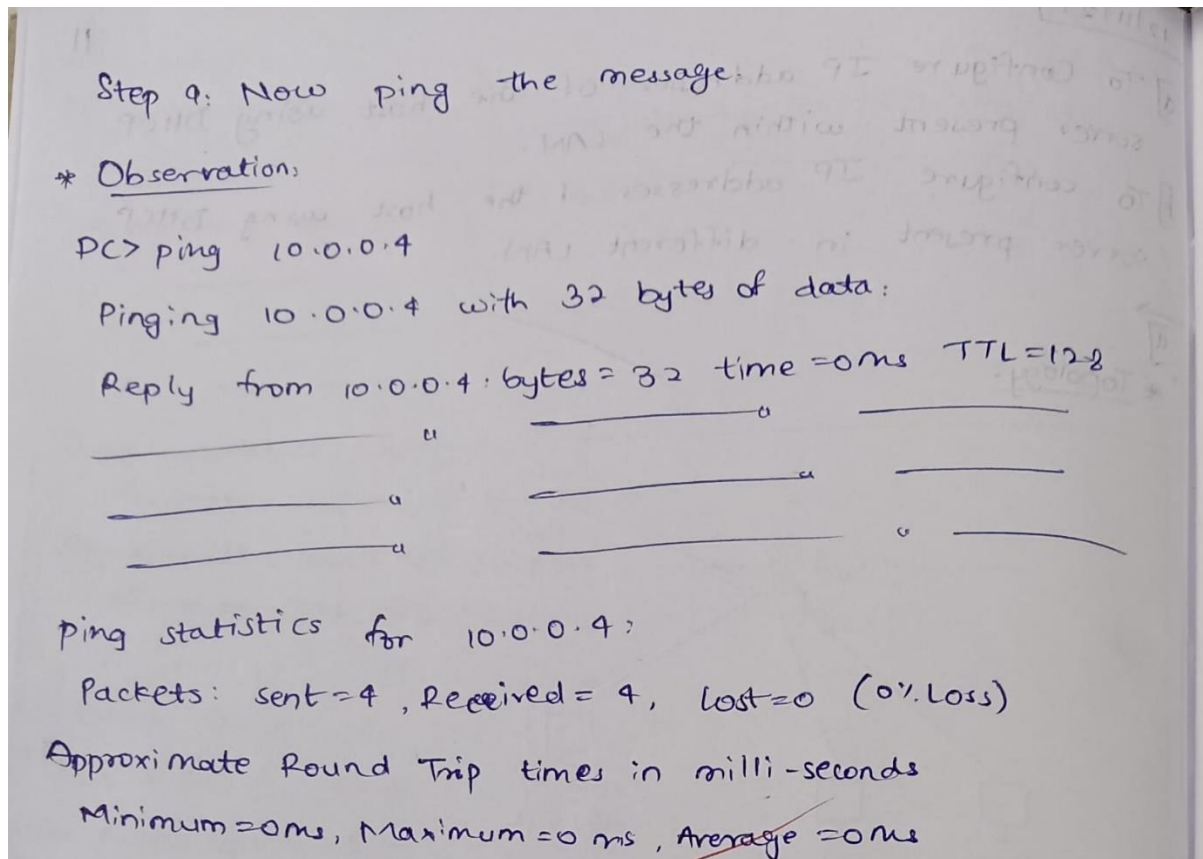
Figure 3: Observation Book1

Step 9: Now ping the message

* Observation:

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

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 = 0 ms, Average = 0ms

Figure 4: Observation Book 2

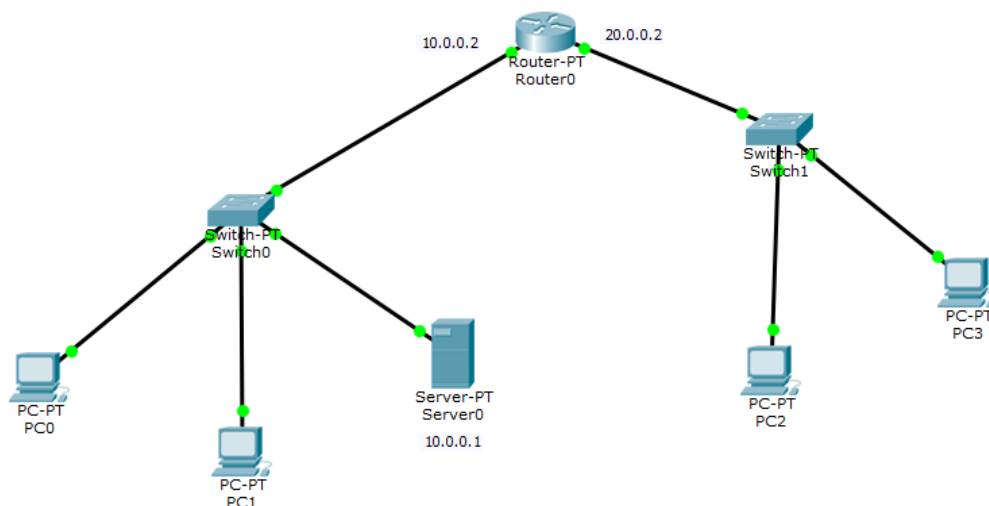**b) To configure IP addresses of the host using DHCP server present in different LAN.**

Figure 5: Topology

```
PC>ping 20.0.0.3

Pinging 20.0.0.3 with 32 bytes of data:

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=3ms 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 = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 3ms, Average = 0ms

PC>|
```
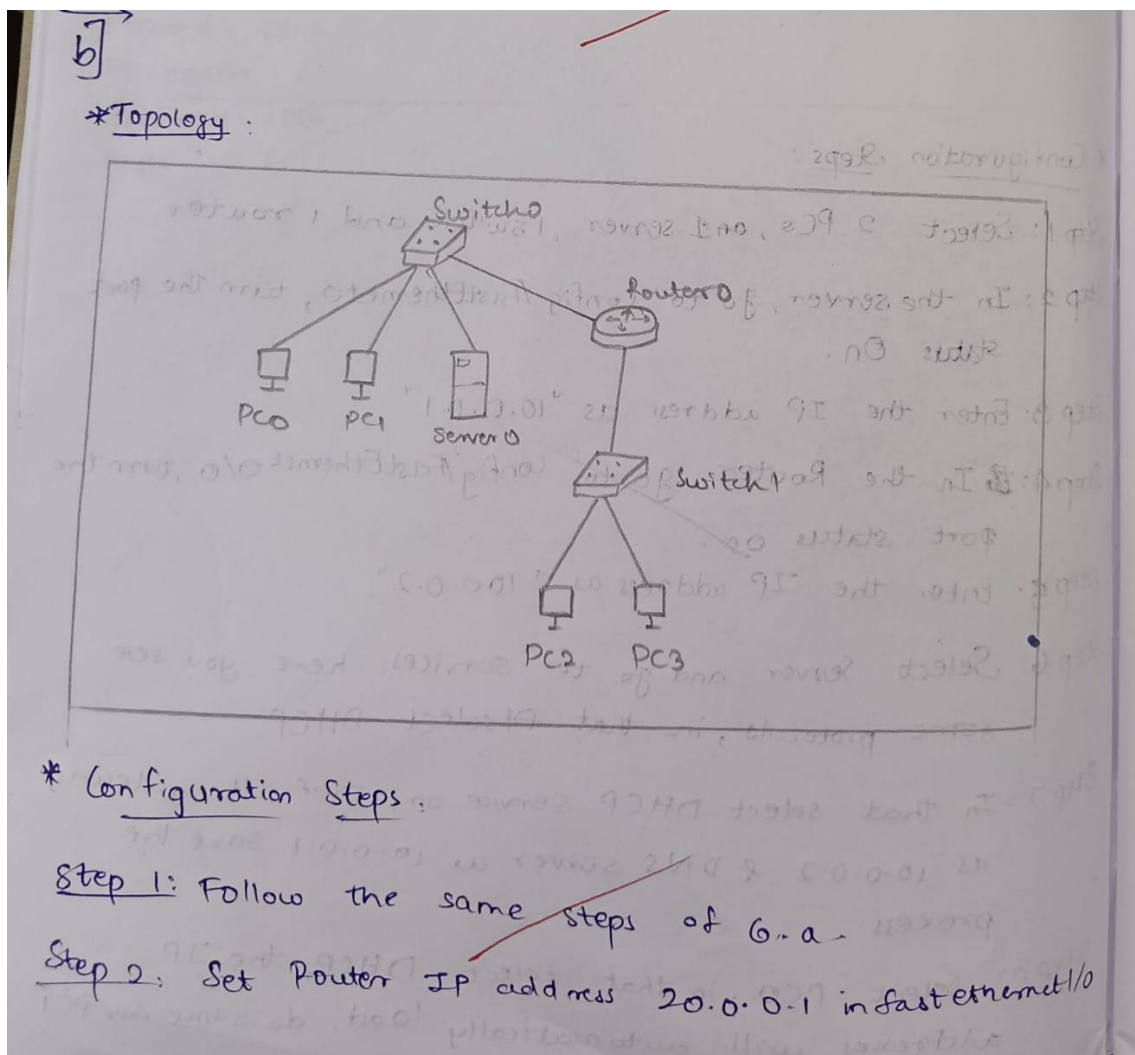
Figure 6: Output

Figure 7: Observation Book 1

→ int fastethernet 1/0
do iphelper 10.0.0.1
Same fastethernet

Step 3: Server pool 2
20.0.0.1
10.0.0.1
Start IP first box = 20

Step 4: Generate IP address for PC2 & PC3

Step 5: Successful pinging in 20.0.0.0 as well as
between 10.0.0.0 and 20.0.0.0.

* Observation :

PC> ping 20.0.0.3
Pinging 20.0.0.3 with 32 bytes of data:
Reply from 20.0.0.3: bytes=32, time=0ms TTL=128
" _____ " _____ " _____
. _____ " _____ . _____
" _____ . _____ . _____

ping statistics for 20.0.0.3:
Packets: sent = 4, Received = 4, Lost = 0 (0% Loss)
Approximate round trip in milliseconds:
Minimum = 0ms, Maximum = 0ms, Average = 0ms

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12/11/24

Figure 8: Observation Book 2