

## EXPERIMENT-4

### Q) Configure DHCP within a LAN and outside LAN

#### PROGRAM 4.1

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LAB-5 - Dynamic Host configuration Protocol

① Create topology in series server

Aim: ?

Set ip address 10.0.0.1 (config → setting → gateway → 10.0.0.1)

Server → DHCP → on

Server → DHCP → Default gateway → 10.0.0.25

Start ip address 10.0.0.2

Save

② Service pad 1

gateway → 10.0.0.25

Start ip address 20.0.0.2

add

③ In router 0 -

Set two Network IP addresses

config t

interface fastEthernet 4/0

ip address 10.0.0.25 255.0.0.0

no shut

(Similarly 20.0.0.25)

config t

interface fastEthernet 0/0

ip helper-address 10.0.0.1

no shut

④ Static route (for 40 ip)

config t

ip route 40.0.0.0 255.0.0.0 30.0.0.20

In route 1 -

Set up address

Interface fast ethernet 0/0

ip address 40.0.0.26 255.0.0.0

no shut

config t

interface serial 2/0

ip address 30.0.0.26 255.0.0.0

no shut

⑥ Static routing for 10 & 20 network

config t

ip route 10.0.0.0 255.0.0.0 30.0.0.0

ip route 20.0.0.0 255.0.0.0 30.0.0.0

no shut

⑦ Setting helper address

config t

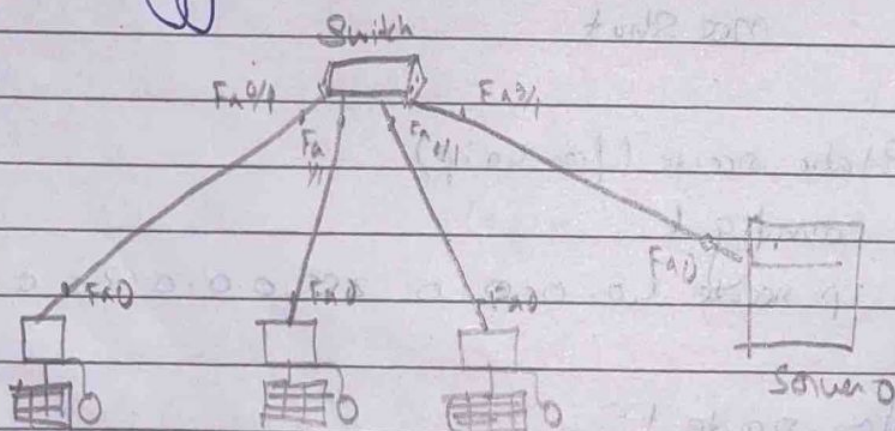
interface fast ethernet 0/0

ip-helper address 10.0.0.0

no shut

Observation?

Topology case without Router.



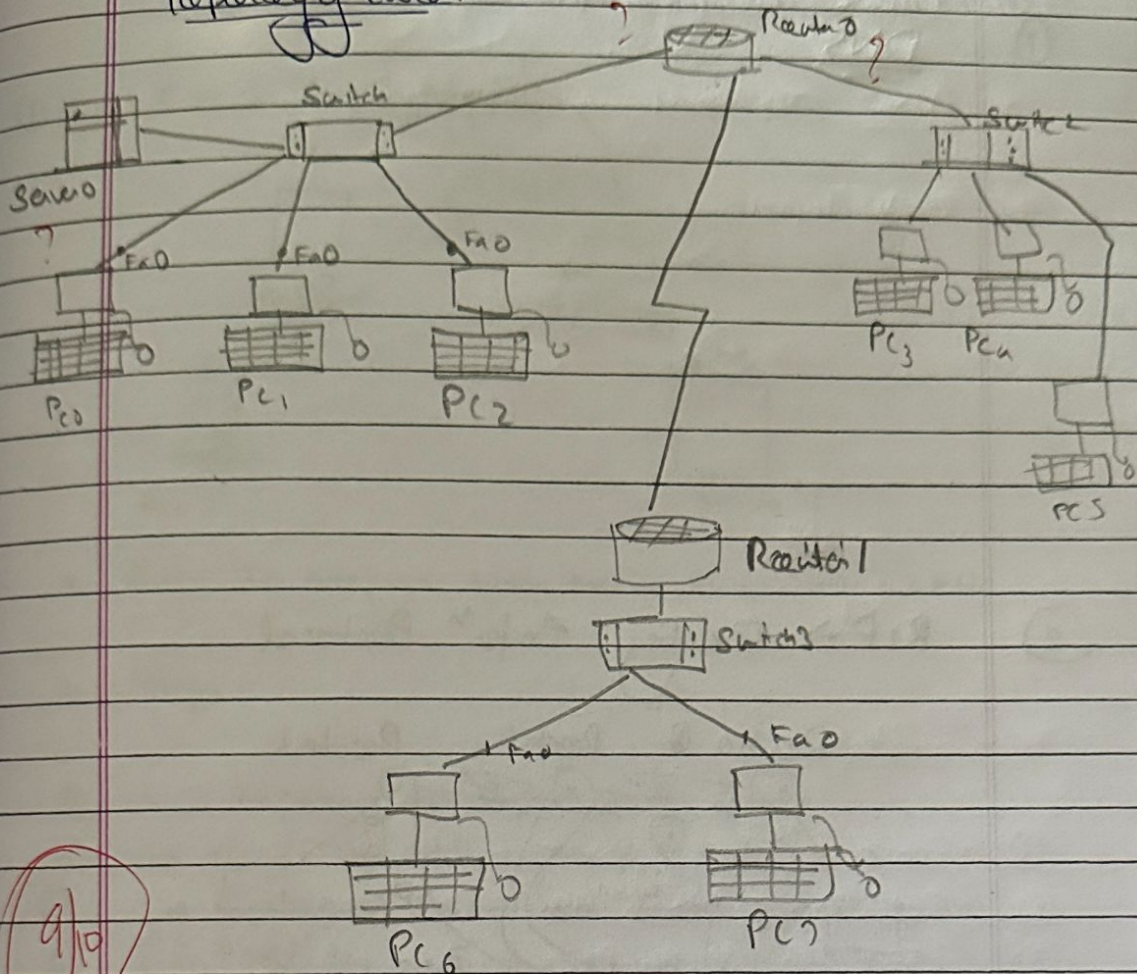




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### Topology two:

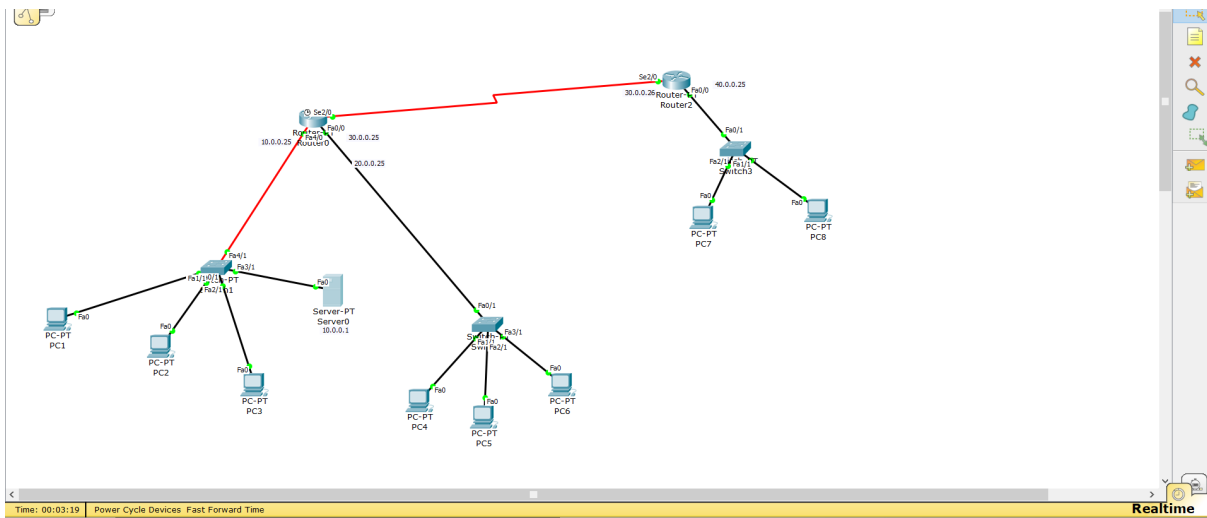


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## TOPOLOGY & OUTPUT

### PROGRAM 4.1



### 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>
```