Program 5

Aim: Configure DHCP within a LAN and outside LAN.

Topology , Procedure and Observation:

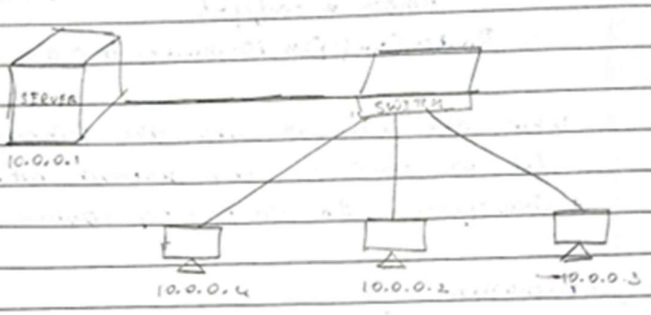
Lab-5

DHCP

Aim:- Configure DHCP within a LAN & outside LAN

1) within LAN

Topology



Procedure

1. Choose a generic Server, a switch, 2PC and a laptop, connect them to switch using auto cable

2. Click on server → Desktop → IPConfig → Static
   Set IP address as 10.0.0.1 & def gateway 10.0.0.0

3. Again configure the Server PT by
   config → Services → DHCP
   Service → ON, pool name: switch one;
   def gateway: 10.0.0.0
   max no of user = 100
   Start IP → 10.0.0.3
   click Add

2. For each PC → go to config → Ip config
Change static to DHCP.

Observation

1. IP address was allocated dynamically.
2. Data was sent successfully among PC's when pinging.

OUTPUT

PC > ping 10.0.0.4

pinging 10.0.0.4 with 32 byte of data:

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

—— " —— " ——

—— " —— " ——

—— " —— " ——

ping statistics for 10.0.0.4

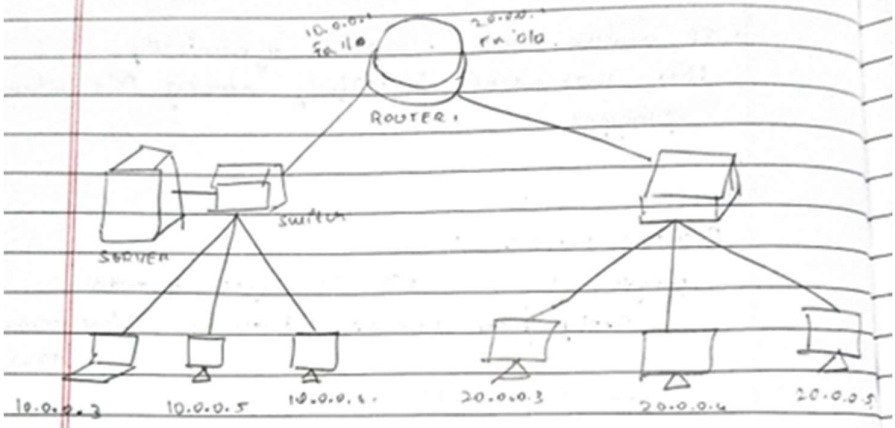
packets sent=4 received=4 , lost=0 (0% loss)

approximate round trip time in milliseconds

Minimum = 0ms , Maximum= 0ms , Avg= 0ms

(11) Outside LAN

Topology



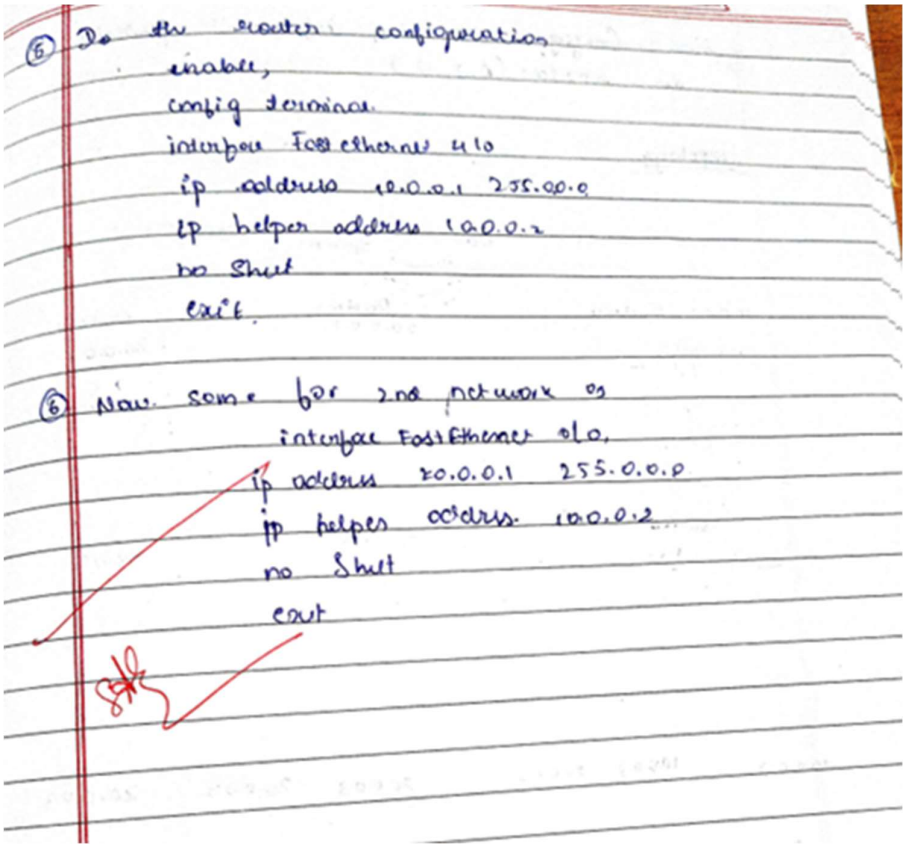
Procedure

(1) → for the existing server, with switch server, a laptop & 2 PC add a router & add second network switch

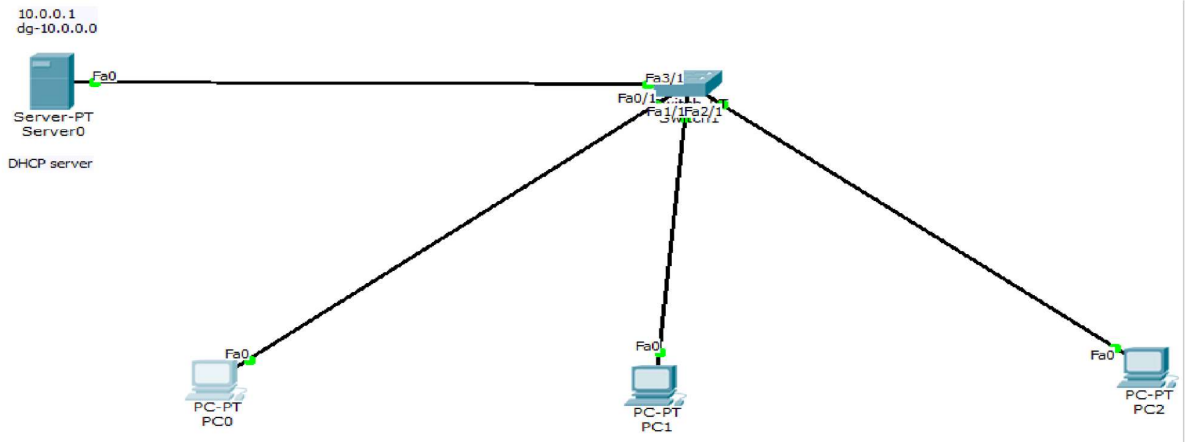
(2) In Server IP config → static → IP address → 10.0.0.2
def gw → 10.0.0.1

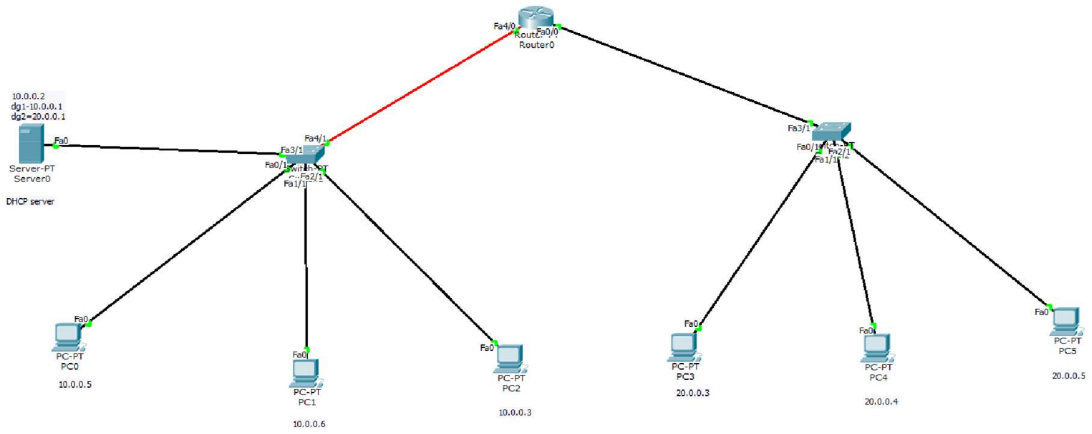
(3) In server, config → Server → DHCP → modify the existing switch one → def gw → 10.0.0.1
ip pool : 10.0.0

(4) In Server → DHCP → for switch 2,
poolname : switch two
def gw → 20.0.0.1
Start IP → 20.0.0.3
add



Screen Shots:





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=1ms 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 = 1ms, Average = 0ms

PC>
```