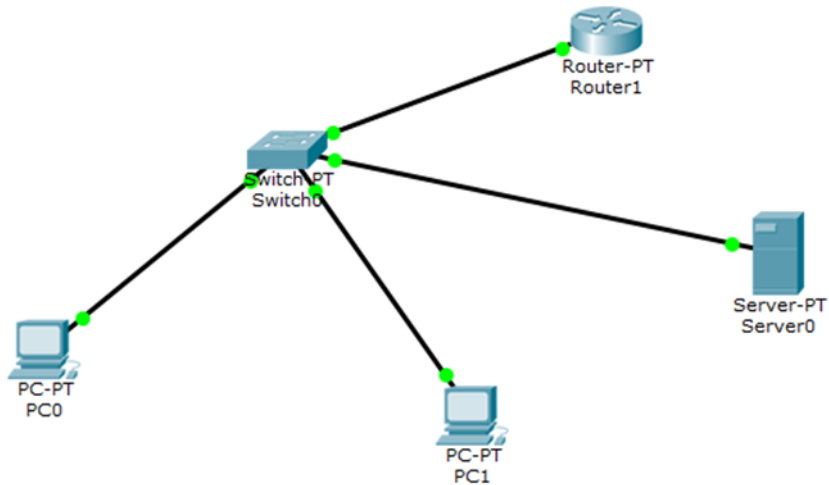Lab-05

5a. To configure IP addresses of the host using DHCP server present within the LAN.

Topology:

Output:


```
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>
```

Observation:

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Aim:

6.a 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.

Configuration steps:

1. In Cisco Packet Tracer select 2 PC's,
a switch, a Router and a Generic Server.
2. Connect all devices & configure server
& Router.
IP adduress: Server - 10.0.0.1   & Router - 10.0.0.2
Gateway: Server - 10.0.0.2
3. Select Server & go to services, here you
See some protocols, in that select DHCP.
4. In that select DHCP service on, Default
Gateway as 10.0.0.2 & DNS server as 10.0.0.1
Save the process.
5. Select PC0, in that select DHCP, the IP
addresses will automatically loaded.
Do same for PC1 too.
c. 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 = oms TTL = 128

ping statistics for 10.0.0.4:
Packets: sent = 4, Recieved = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = oms, Maximum = oms, Average = oms

PC > ping 10.0.0.1
pinging 10.0.0.1 with 32 bytes of data:
Reply from 10.0.0.1: bytes = 32 time = oms   TTL = 128

Ping statistics for 10.0.0.1:
packets: sent = 4, Ricieved = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = oms, Maximum = 0ms, Average = oms

PC > ping 20.0.0.1
pinging 20.0.0.1 with 32 bytes of data:
Reply from 20.0.0.1: bytes = 32 times = oms TTL = 255
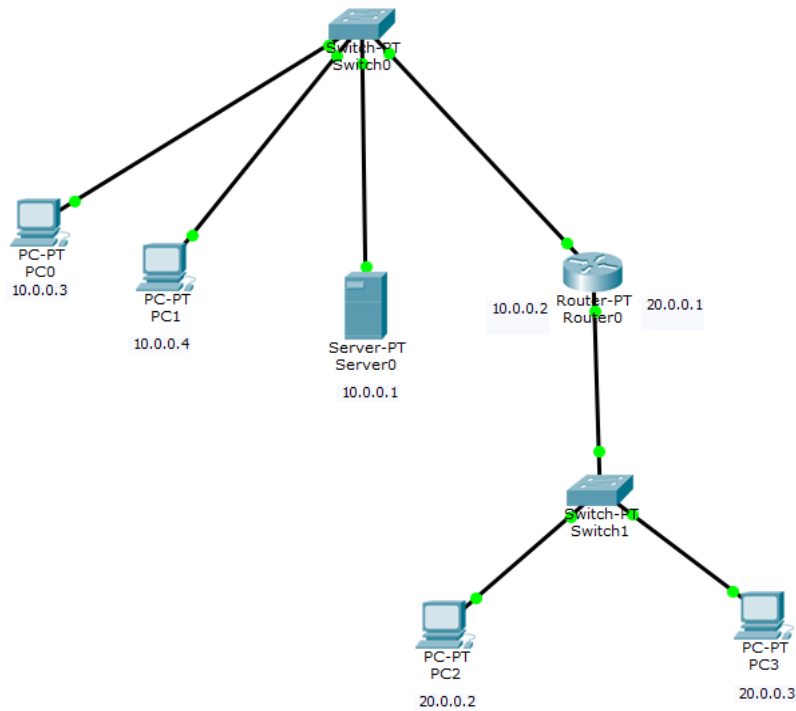
ping statistics for 20.0.0.1:
Packets: Sent = 4, Recieved = 4, Lost = 0 (0% loss),
Approximate round trip in milli-seconds:
Minimum = oms, Maximum = 2ms, Average = oms.

5b. To configure IP address of the host using DHCP server present in different LAN.

Topology:

PC-PT
PC0
10.0.0.3

PC-PT
PC1

10.0.0.4

Server-PT
Server0

10.0.0.1

10.0.0.2 Router-PT 20.0.0.1
Router0

Switch-PT
Switch1

PC-PT
PC2

20.0.0.2

PC-PT
PC3

20.0.0.3
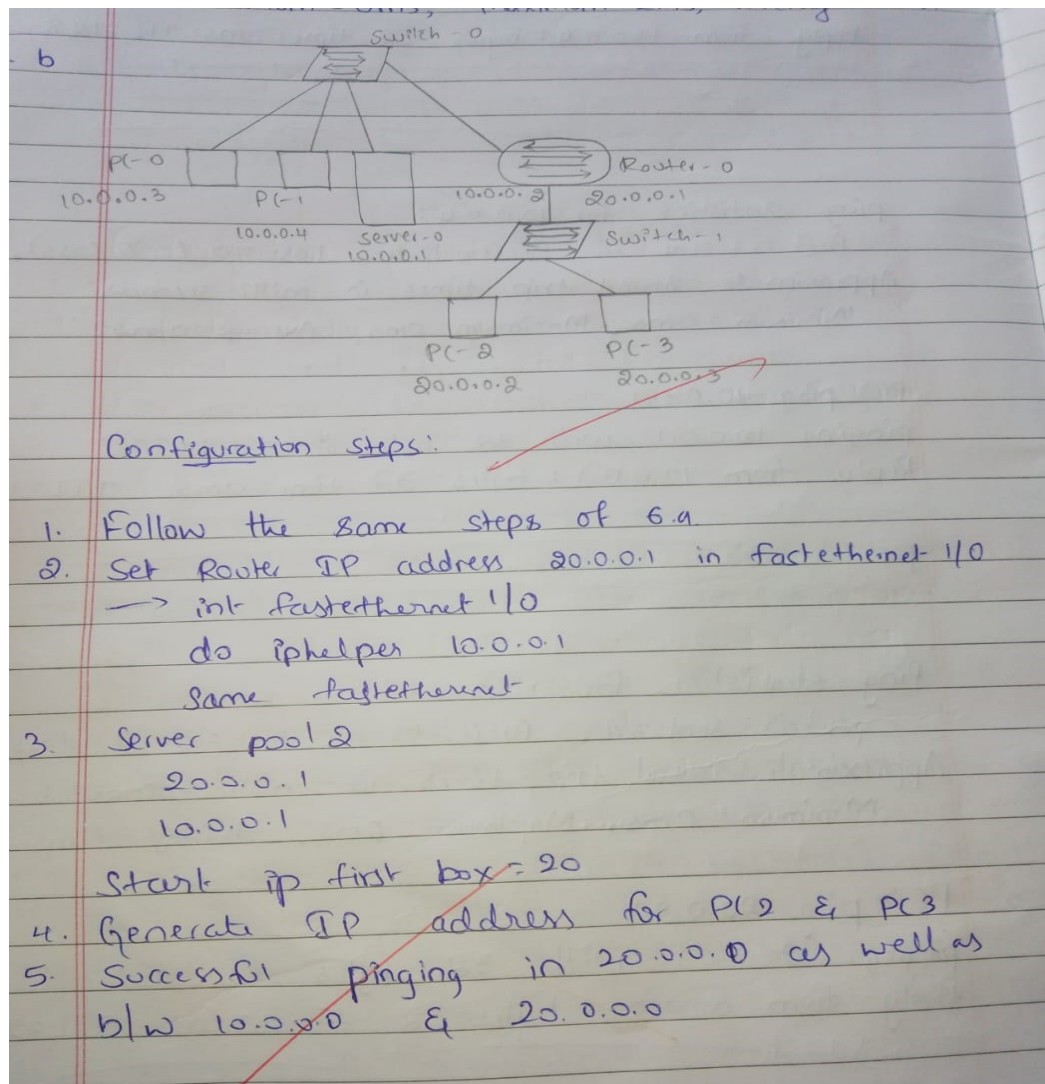
Output:

```
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>
```

Observation:

Configuration steps:

1. Follow the same steps of 6.a
2. Set Router IP address 20.0.0.1 in fastethernet 1/0
   → int fastethernet 1/0
      do iphelper 10.0.0.1
      same fastethernet
3. Server pool 2
      20.0.0.1
      10.0.0.1
   Start ip first box = 20
4. Generate IP address for PC2 & PC3
5. Successful pinging in 20.0.0.0 as well as
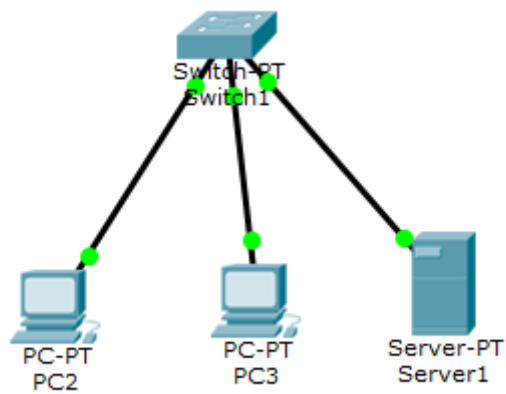   b/w 10.0.0.0 & 20.0.0.0

Output:

PC7 ping 20.0.0.3
Pinging 20.0.0.3 with 32 bytes of data :

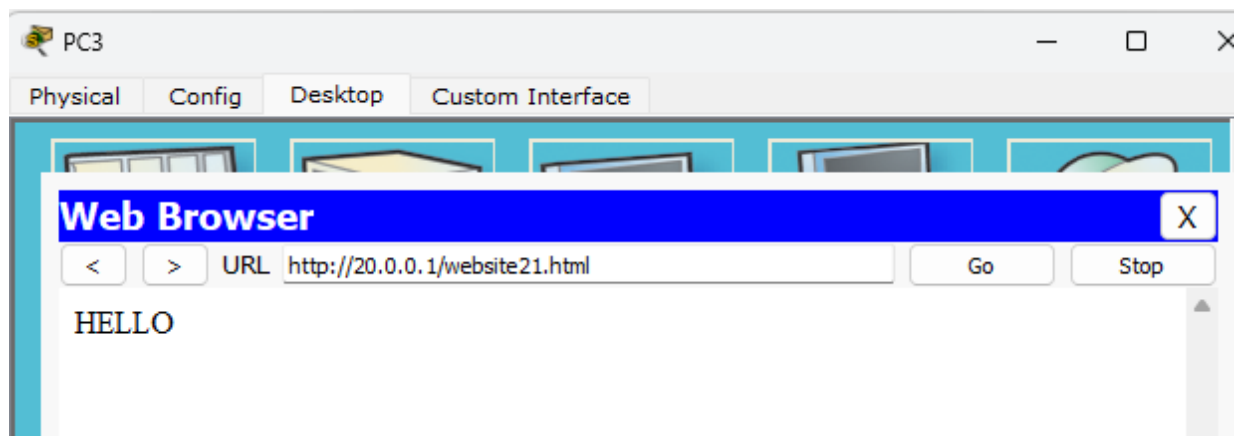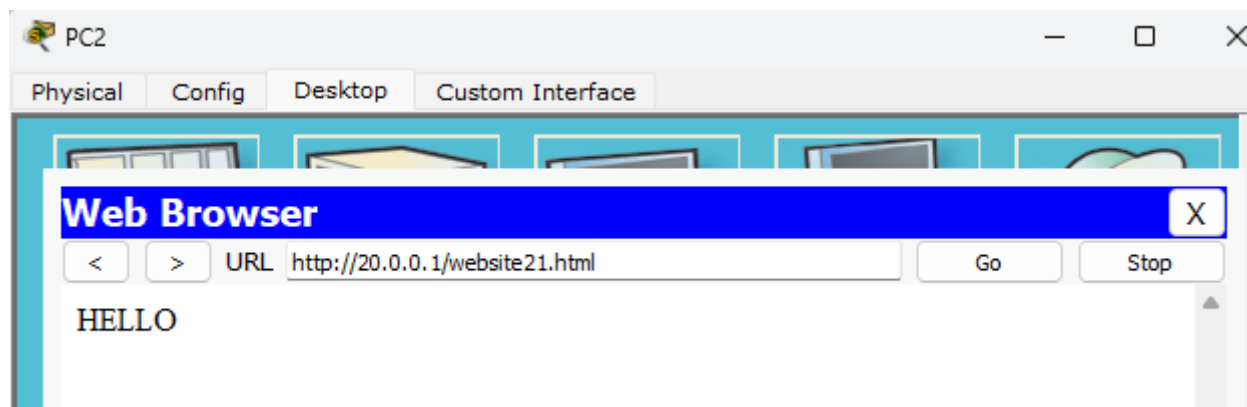Reply from 20.0.0.3: bytes=32, time=0ms TTL=128

ping Statistics for 20.0.0.3:
   Packets: Sent=4, Recieved=4, Lost=0 (0% loss),
Approximate round trip in milli-seconds:
   Minimum=0ms, Maximum=0ms, Average=0ms

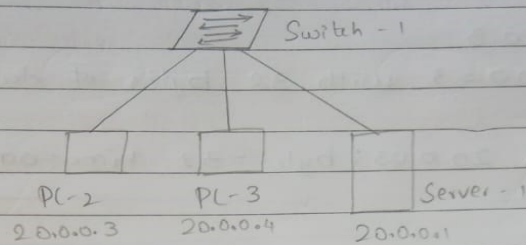5c. To configure DNS server to demonstrate mapping of IP address and domain names.

Topology:

Output:

Observation:

2. To configure DNS server to demonstrate mapping of IP addresses & Domain Names

```
                    [Switch]  Switch - 1
                   /    |    \
                  /     |     \
              [     ] [     ] [     ]
               PC-2    PC-3    Server - 1
             20.0.0.3  20.0.0.4  20.0.0.1
```

Configuration Steps:

1. Select 2 PC's, 1 server & 1 switch. Connect all the end devices.
2. Configure IP address for the following
   PC-2   - 20.0.0.1
   PC-3   - 20.0.0.4
   Server-1 - 20.0.0.4
3. Now, select server, go to services, select DNS. In that add one DNS service.
4. Select HTTP, select New File, & Create a html file.
5. Now check whether the website opening from both the PC's.

Output:

PC-2

Web Browser

| < | > | URL | http://20.0.0.1/website21.htm | Go | Stop |

HELLO

PC-3

Web Browser

| < | > | URL | http://20.0.0.1/website21.html | | Go | Stop |

HELLO

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