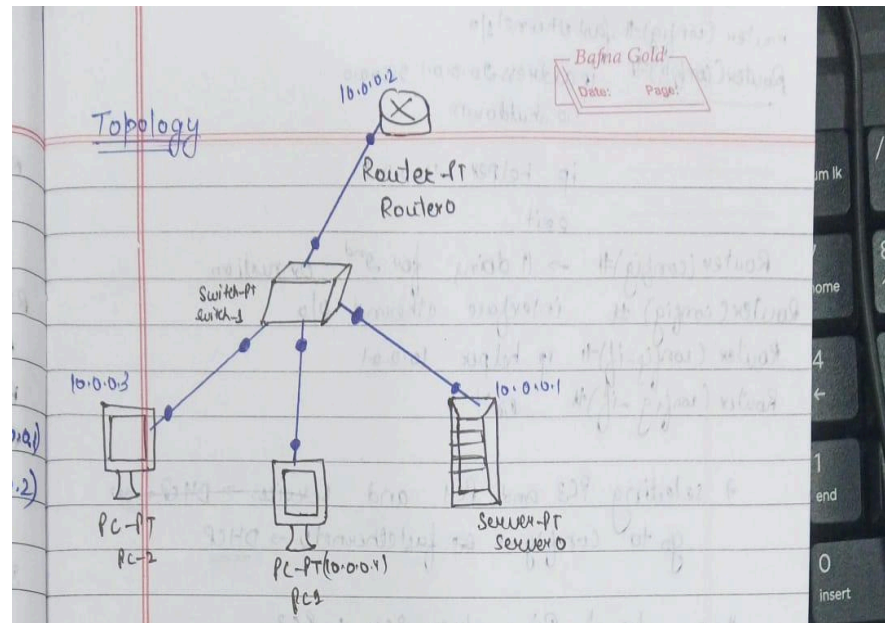


CN LAB 6

AIM: TO CONFIG IP ADDRESSES OF HOST USING DHCP SERVER PRESENT WITHIN SAME LAN

OBSERVATION:



Lab-06

A) Aim → To configure ip addresses of host using DHCP server present within the same LAN

→ Dynamic Host Configuration Protocol - helps to do configuration of network automatically.

Configuration

- click server-PT server0 and assign IP address (10.0.0.1)
- configure router (host config), assign IP address (10.0.0.2) using CLI commands

Again select server, config "gateway" as IP address of router (10.0.0.2)

Config Go to server click on services → select DHCP = on

→ Pool is the set of IP address assign to server repeatedly

Set, PoolName = no change (serverpool1)

→ Default Gateway = 10.0.0.2 & DNS Server = 10.0.0.1

[Save] this and close.

→ Now DHCP server is ready to assign IP addresses

→ By sending request, happens automatically by picking address from pool and assigns it to requesting host.

→ Go to PC2 and check DHCP (not static)
Go to PC1 and check DHCP (not static)

Output

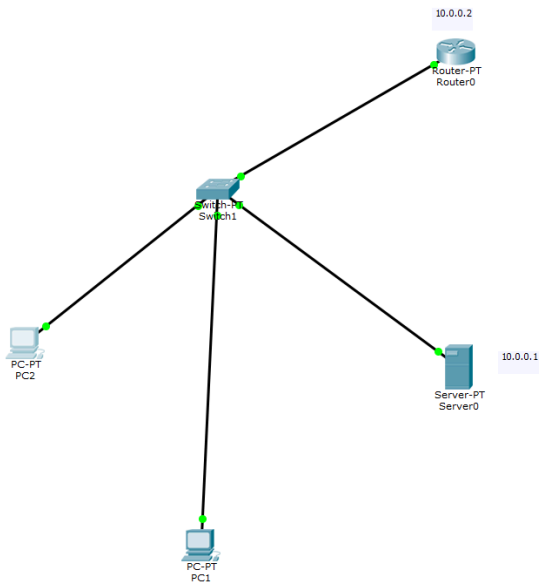
PC> ping 10.0.0.4

pinging 10.0.0.4 with 32 bytes of data:

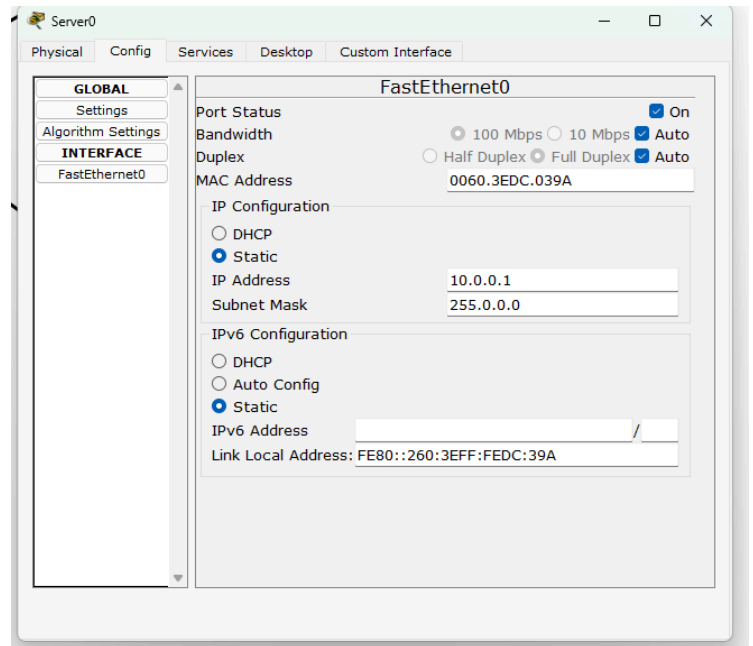
Reply from 10.0.0.4: bytes=32 time=0ms TTL=128

packet: sent = 4 Received = 4 lost = 0

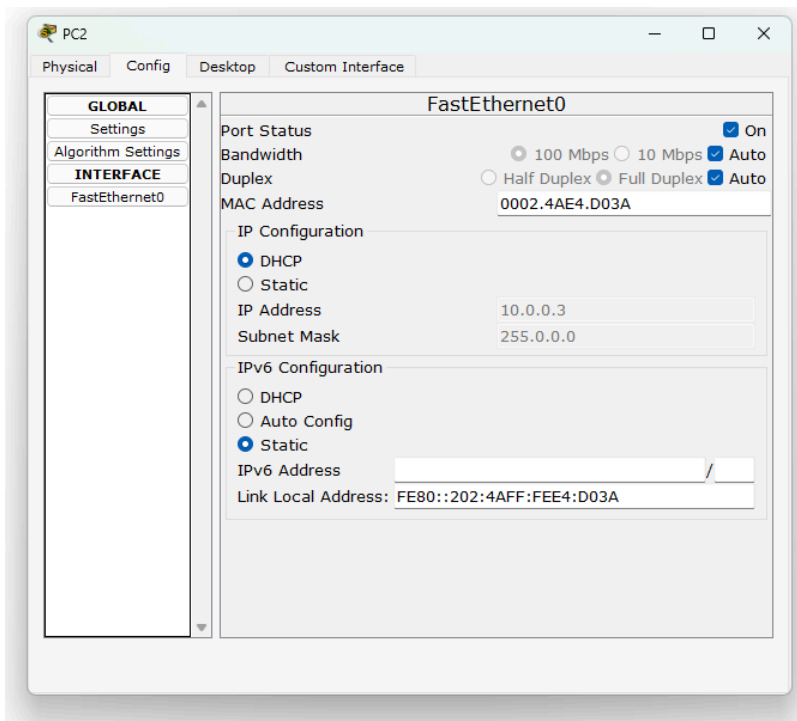
a) NETWORK TOPOLOGY :



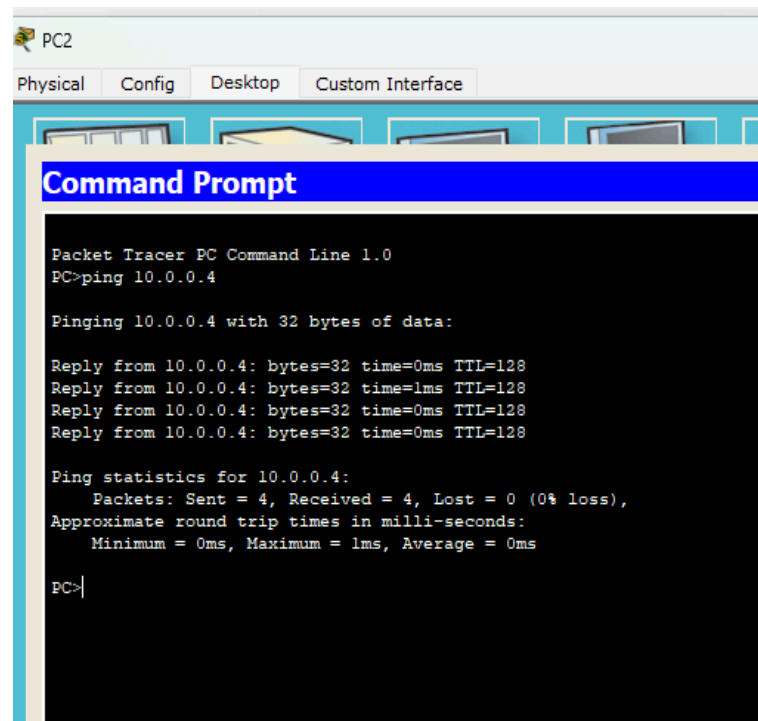
b) SERVER CONFIG



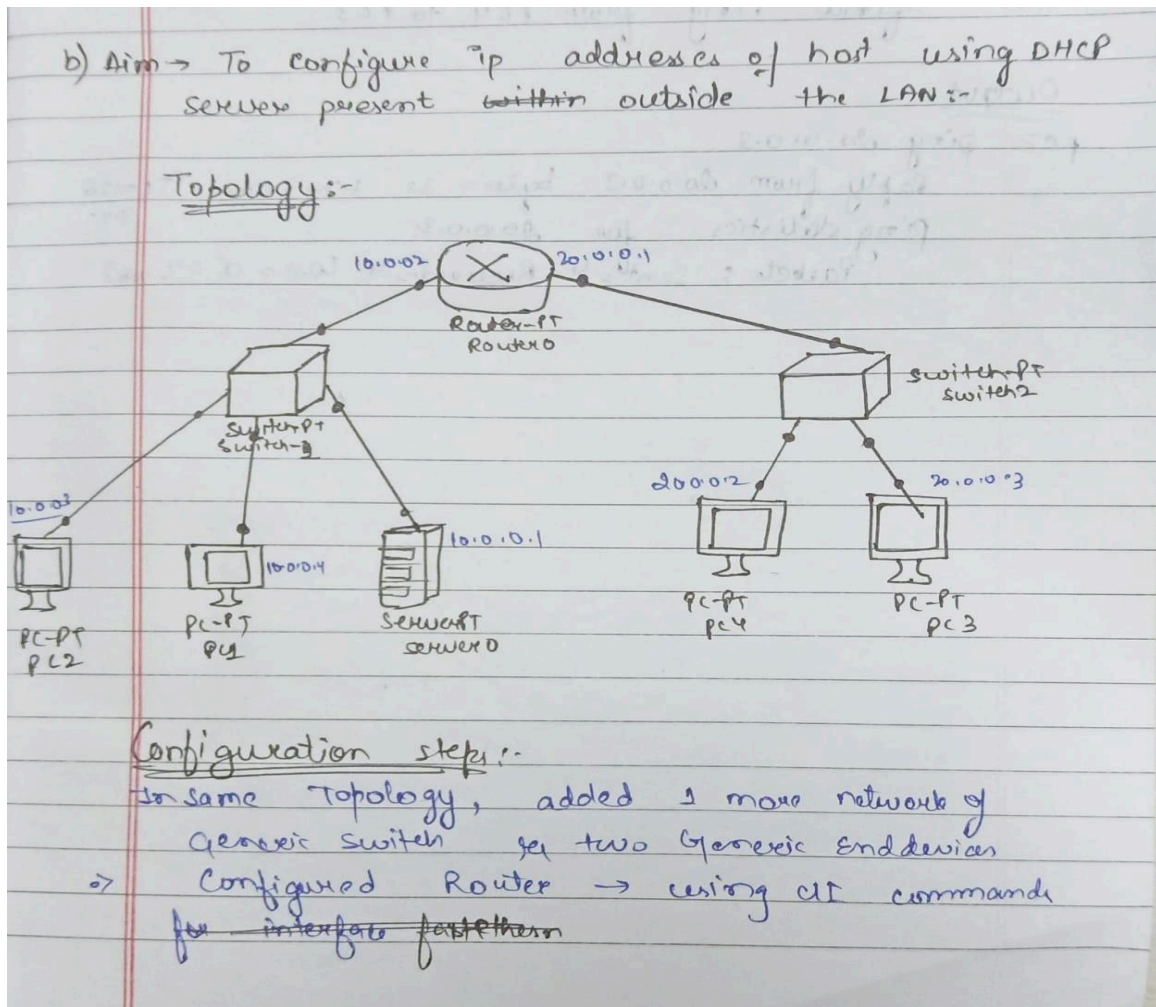
c) PC CONFIG



d) PING COMMAND



AIM: TO CONFIG IP ADDRESSES OF HOST USING DHCP SERVER PRESENT OUTSIDE SAME LAN



```

Router(config)# fast ethernet 0/0
Router(config)# ip address 20.0.0.1 255.0.0.0
no shutdown
ip helper 10.0.0.1
exit
Router(config)# → It doing for 2nd connection
Router(config)# interface ethernet 0/0
Router(config-if)# ip helper 10.0.0.1
Router(config-if)# exit

```

→ selecting PC3 and PC4 and services → DHCP on
go to Config → fastethernet0 → DHCP

then final Ping from PC4 to PC3

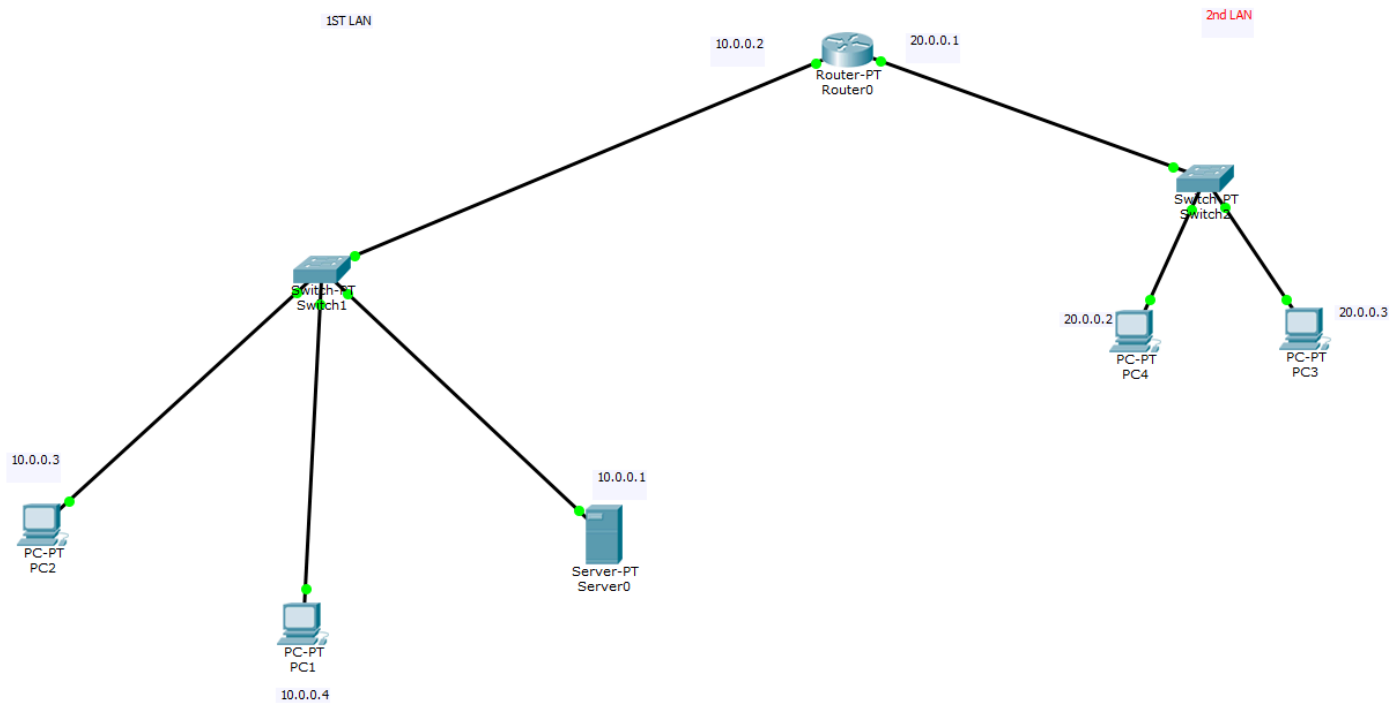
Output

```

PC> ping 20.0.0.3
Reply from 20.0.0.3: bytes=32 time=0ms TTL=128
Ping statistics for 20.0.0.3:
    Packets: Sent=4, Received=4, Loss=0% (0% loss)

```

a) NETWORK TOPOLOGY:



b) ROUTER CONFIG

```

Router0
Physical Config CLI
IOS Command Line Interface

Router>enable
Router#config t
Enter configuration commands, one per line. End with CNTL/Z.
Router(config)#interface fastethernet1/0
Router(config-if)#ip address 20.0.0.1 255.0.0.0
Router(config-if)#no shutdown

Router(config-if)#
%LINK-5-CHANGED: Interface FastEthernet1/0, changed state to up
%LINEPROTO-5-UPDOWN: Line protocol on Interface FastEthernet1/0, changed state to up

Router(config-if)#ip helper 10.0.0.1
Router(config-if)#exit
Router(config)#
Router(config)#interface fastethernet0/0
Router(config-if)#ip helper 10.0.0.1
Router(config-if)#exit
Router(config)#
Router(config)#

```

c) PING COMMAND

```

Command Prompt

Packet Tracer PC Command Line 1.0
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
Reply from 20.0.0.3: bytes=32 time=1ms TTL=128
Reply from 20.0.0.3: bytes=32 time=0ms TTL=128
Reply from 20.0.0.3: bytes=32 time=0ms TTL=128

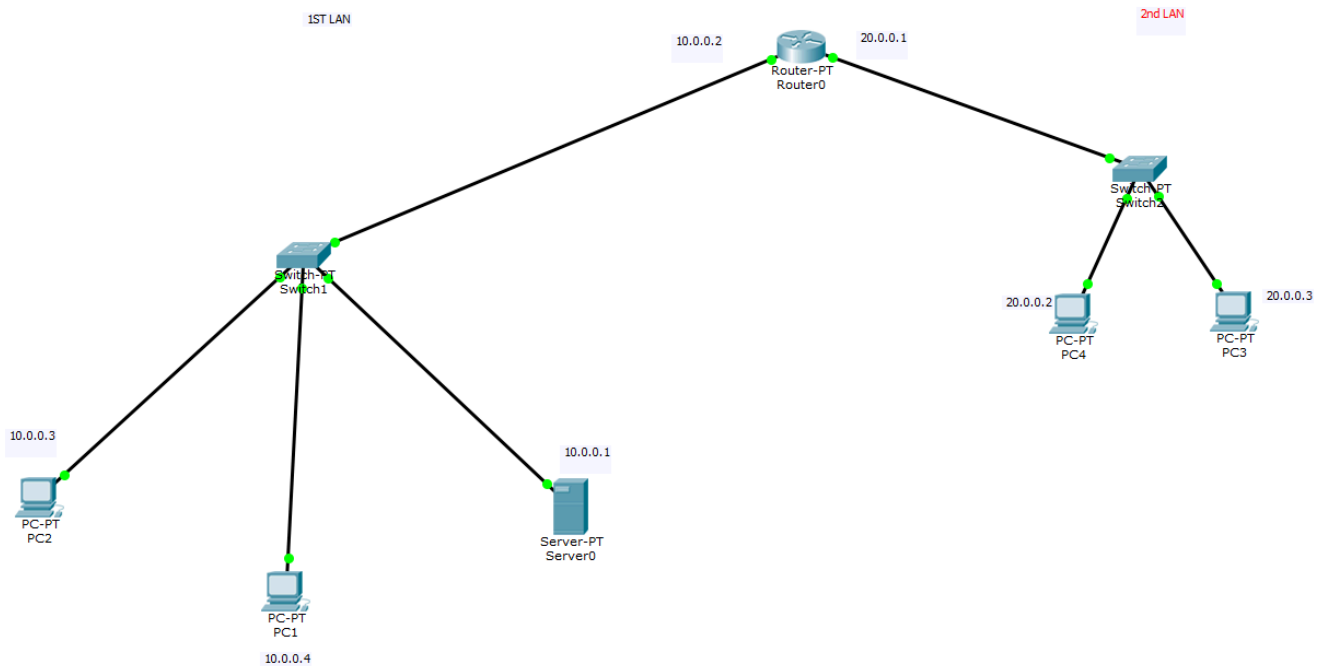
Ping statistics for 20.0.0.3:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms

PC>

```

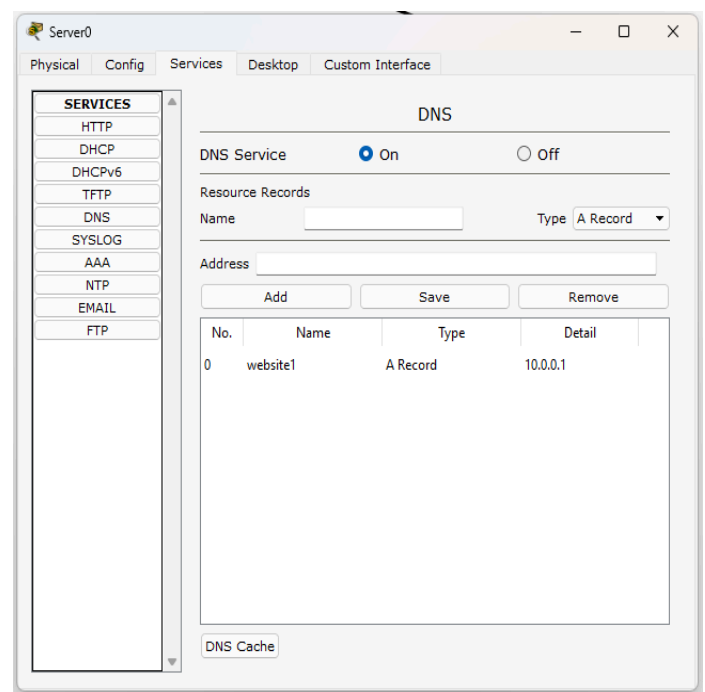
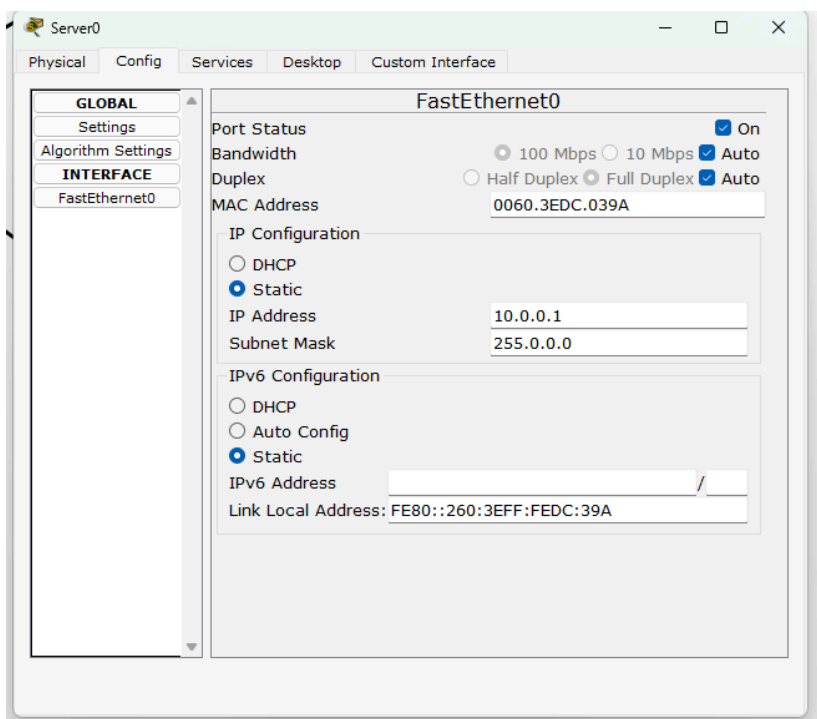
AIM: TO CONFIG DNS SERVER TO DEMONSTRATE THE MAPPING OF IP ADDRESSES AND DOMAIN NAME

TOPOLOGY:



DNS SERVER CONFIG

Adding website name and address



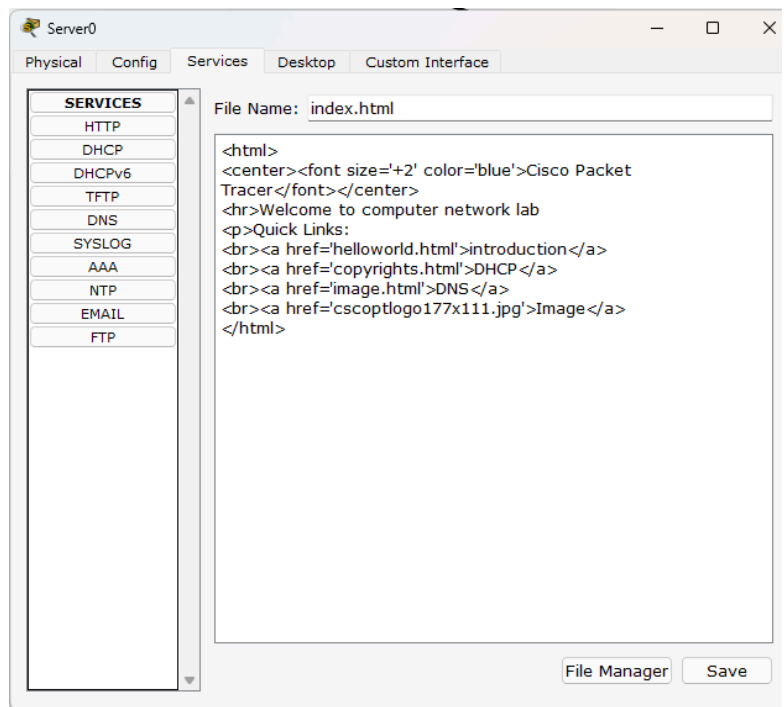
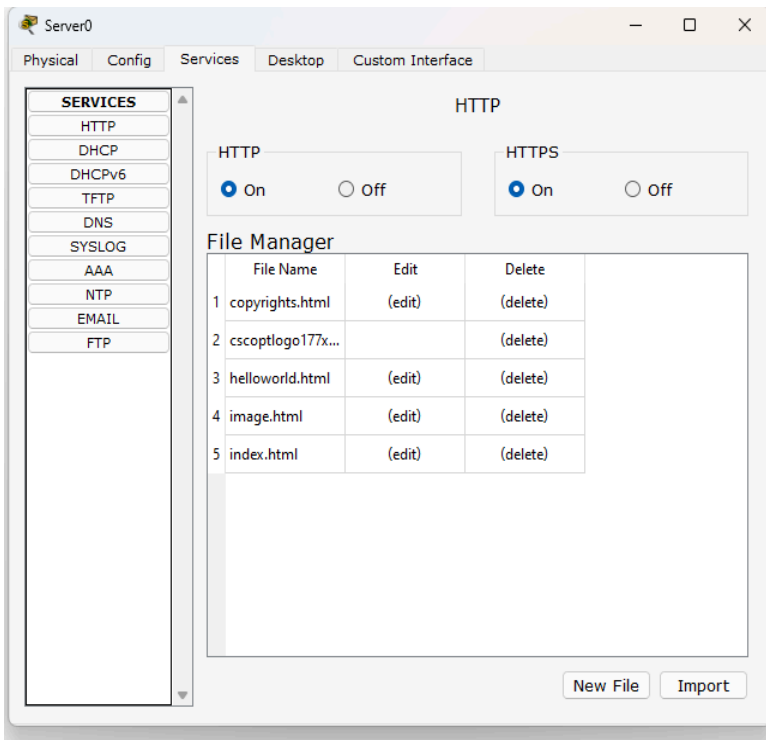


Fig: Accessing and changing index.html

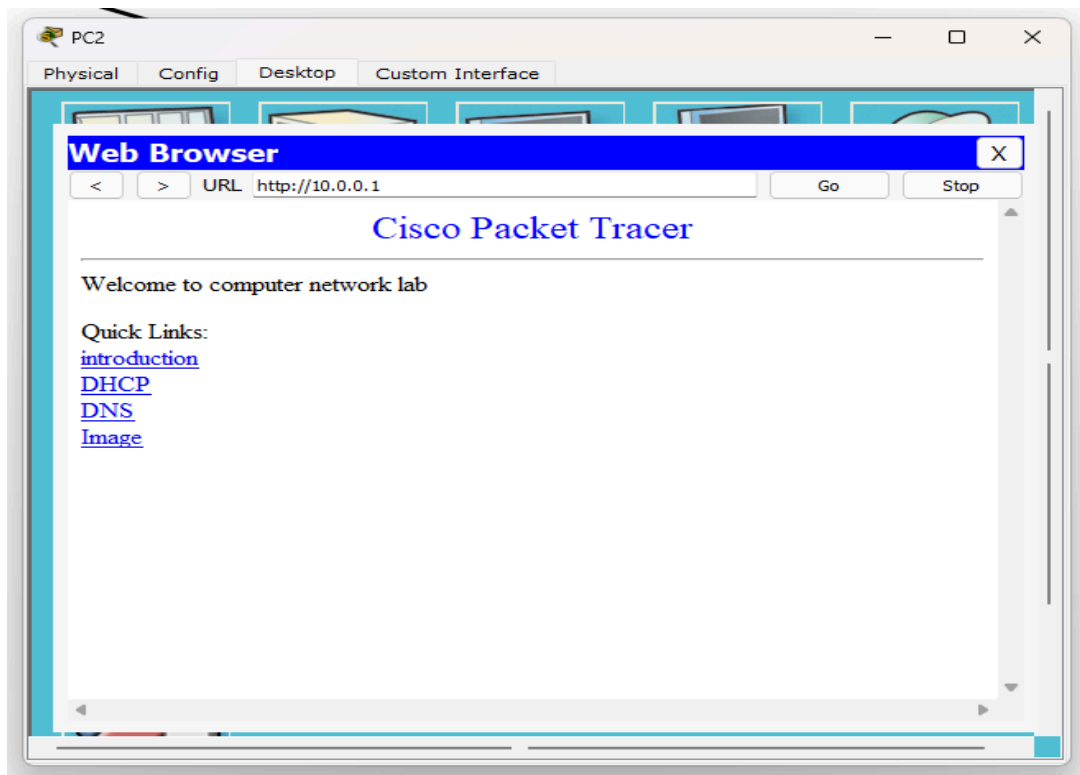


Fig : webBrowser output

OBSERVATION:

Bafna Gold
Date: 12/11/24: (15)

AIM: TO CONFIG DNS SERVER TO DEMONSTRATE THE MAPPING OF IP ADDRESSES AND DOMAIN NAME.

Topology → Same as prev (for outside Lan):-

or Steps:-

1. Go to Server0, → Services → DNS ~~enter~~ ON,
Name = website1
Address = (server address) 10.0.0.1
Save
2. Go to HTTP → index.html → make changes of heading.
3. Go to PC2 → Desktop → WebBrowser
enter URL website1 or 10.0.0.1 (also works)
→ shows you index.html page. Content

Configuration steps are same as prev.