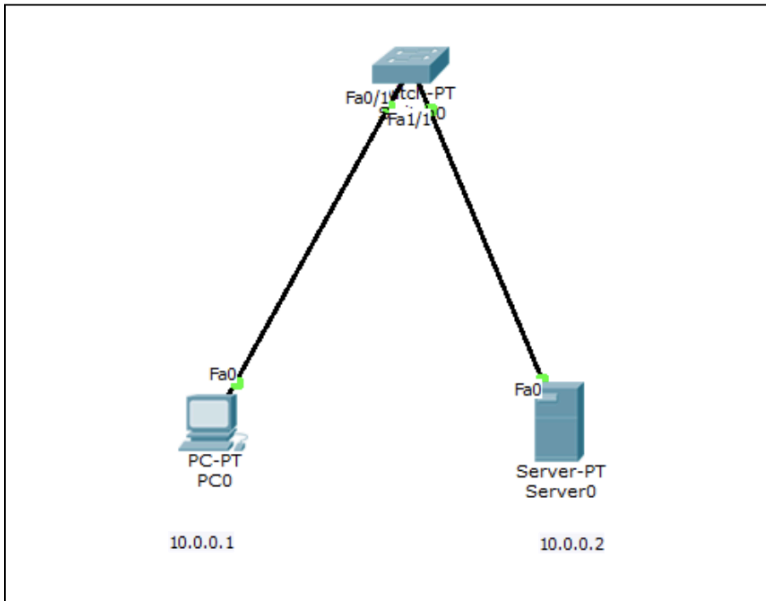
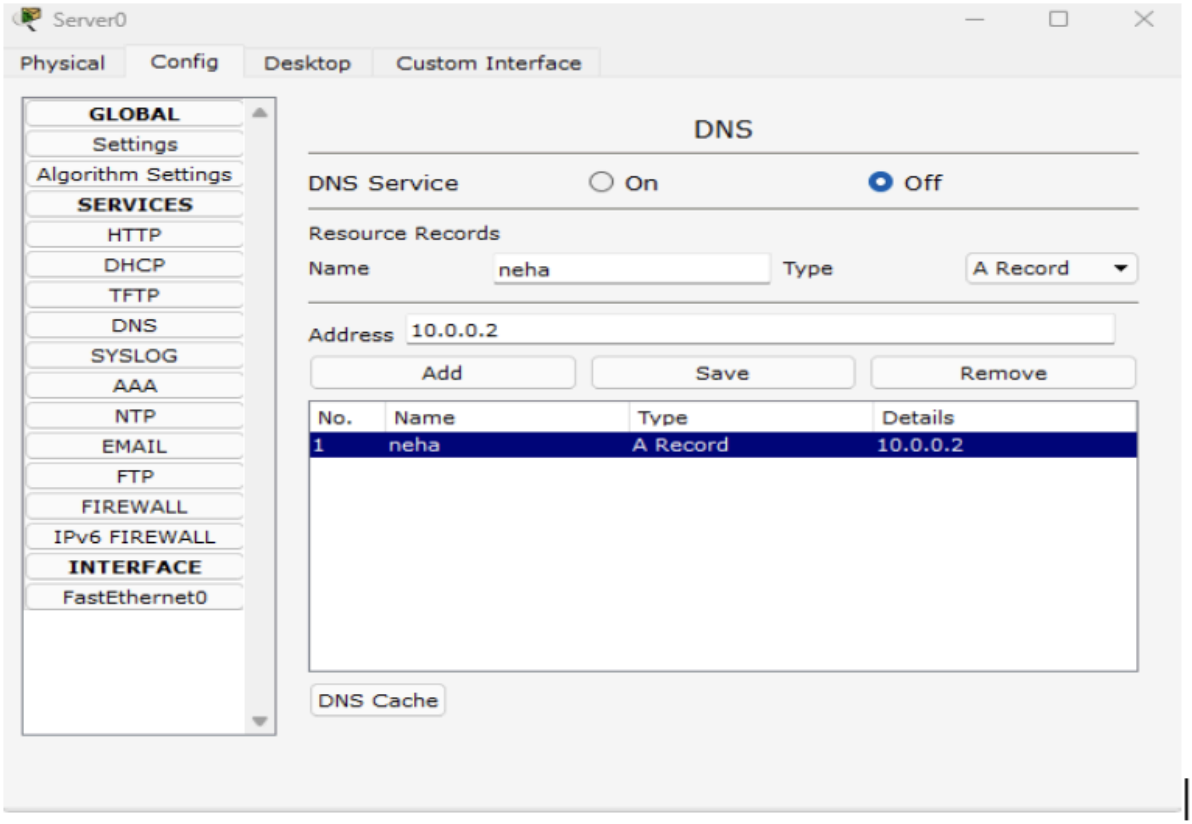
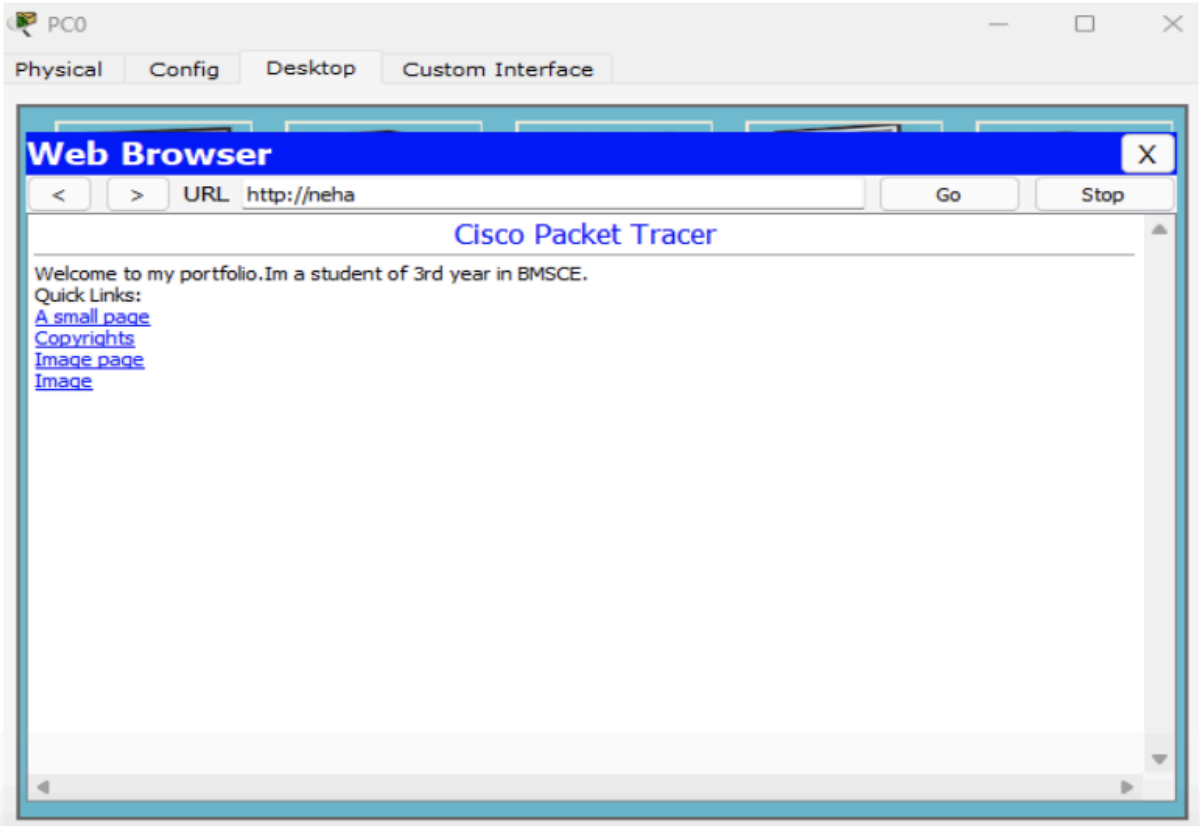
Experiment 8:
Q)CONSTRUCT SIMPLE LAN AND UNDERSTAND THE CONCEPT OF ARP




Server0
Physical
Config
Desktop
Custom Interface
GLOBAL
Settings
Algorithm Settings
SERVICES
HTTP
DHCP
TFTP
DNS
SYSLOG
AAA
NTP
EMAIL
FTP
FIREWALL
IPv6 FIREWALL
INTERFACE
FastEthernet0
DNS
DNS Service
On
Off
Resource Records
Name
neha
Type
A Record
Address
10.0.0.2
Add
Save
Remove
No.
Name
Type
Details
1
neha
A Record
10.0.0.2
DNS Cache

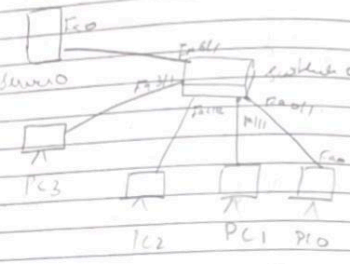

PC0
Physical
Config
Desktop
Custom Interface
Web Browser
X
<
>
URL
http://neha
Go
Stop
Cisco Packet Tracer
Welcome to my portfolio.Im a student of 3rd year in BMSCE.
Quick Links:
A small page
Copyrights
Image page
Image

Experiment - 8

Aim: To construct a simple LAN and understand concept and operation of ARP

Also construct a simple LAN simulate operations of Address resolution Protocol

Topology



1. Switch connected to pc's & Server via fast ethernet interfaces & one ethernet interface respectively

2. All connections made via upper straight-through cable

Procedure:

Open cisco packet tracer and drag the following

Switch

PC: Place 3 pc's connected to switch 0

Server: Place 1 server & connect it switch 0

- Assign an IP address and subnet mask to all the devices then connect them via switch
- Use the inspect tool to click on a to view ARP table
- Display the ARP table of all the devices
- Initially ARP is empty for all
- Also in CLI of switch the command show mac address table can be given on every transaction to see how the switch learns from transactions and build the address table
- Use the capture button in the simulation. Need to go step by step so that changes in ARP can be clearly noted
- Observe the switch as well as hosts, update the ARP table and when new communication starts

Observation:

As the packet travels from one source host to its destination host, the ARP tables of all devices get updated

3/1/25