Q) Simulate DNS in packet tracer.

=> The Domain Name System (DNS) is a critical component of the internet infrastructure that translates human-readable domain names (e.g., www.example.com) into machine-readable IP addresses (e.g., 192.0.2.1). This process is essential because, while humans find it easy to remember domain names, computers use IP addresses to identify each other on the network.

To simulate DNS in Cisco Packet Tracer:-

Add Devices: Added one server, a switch and three pcs

Configure the Server:

Select the server and go to the Config tab.

Enable the DNS service.

Add DNS records by entering the domain names and corresponding IP addresses.

Configure the PCs:

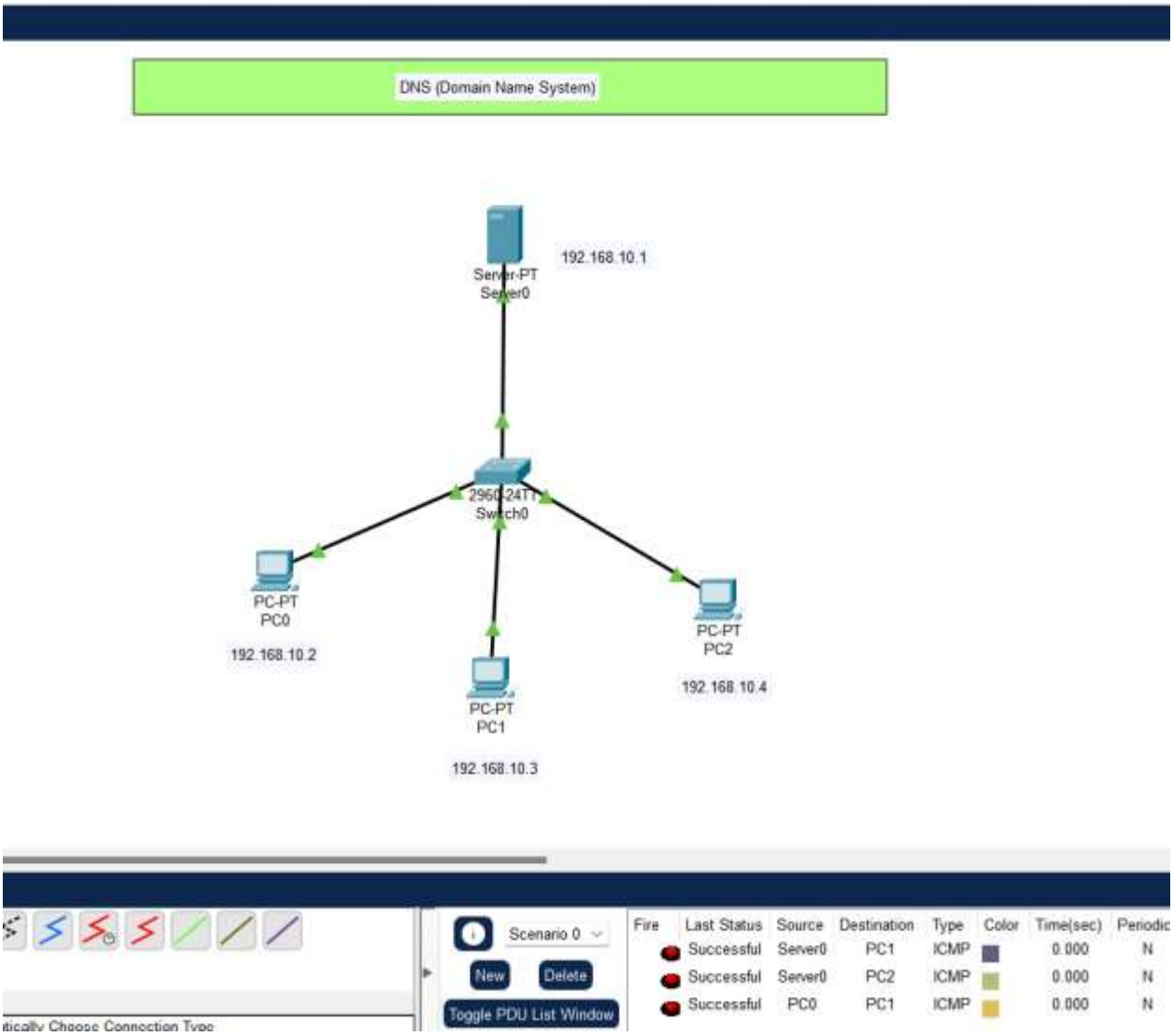
Select a PC and go to the Config tab.

Set the DNS server IP to the IP address of the configured DNS server.

Test the Configuration:

On a PC, open the command prompt and use the nslookup command to query the DNS server for a domain name.

The DNS server returns the correct IP address as shown in the attatched screenshots:


DNS (Domain Name System)
192.168.10.1
Server-PT
Server0
2960-24TT
Switch0
PC-PT
PC0
192.168.10.2
PC-PT
PC1
192.168.10.3
PC-PT
PC2
192.168.10.4

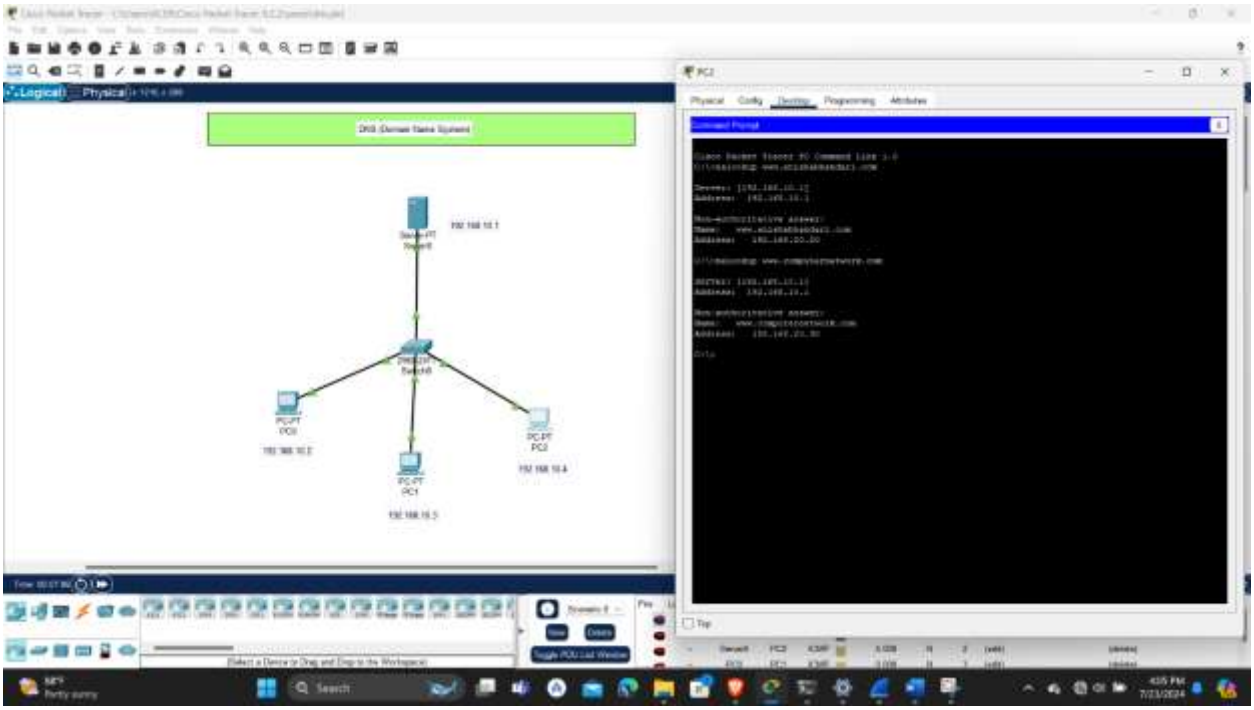
Scenario 0
New
Delete
Toggle PDU List Window
Fire
Last Status
Source
Destination
Type
Color
Time(sec)
Periodic
Successful
Server0
PC1
ICMP
0.000
N
Successful
Server0
PC2
ICMP
0.000
N
Successful
PC0
PC1
ICMP
0.000
N

PC2

Physical Config Desktop Programming Attributes

Command Prompt

```
Cisco Packet Tracer PC Command Line 1.0
C:\>nslookup www.anishabhandari.com

Server: [192.168.10.1]
Address:  192.168.10.1

Non-authoritative answer:
Name:   www.anishabhandari.com
Address:   192.168.20.20

C:\>nslookup www.computernetwork.com

Server: [192.168.10.1]
Address:  192.168.10.1

Non-authoritative answer:
Name:   www.computernetwork.com
Address:   192.168.20.30

C:\>
```



Q) Capture the DNS packet on wireshark.