**Ex No: 14**

**Date:**

# SIMULATION OF TCP CLIENT SERVER MODEL FOR DNS APPLICATION

**Aim:**

To study the simulation of client server model for DNS application using TCP, in CISCO PACKET TRACER simulator.

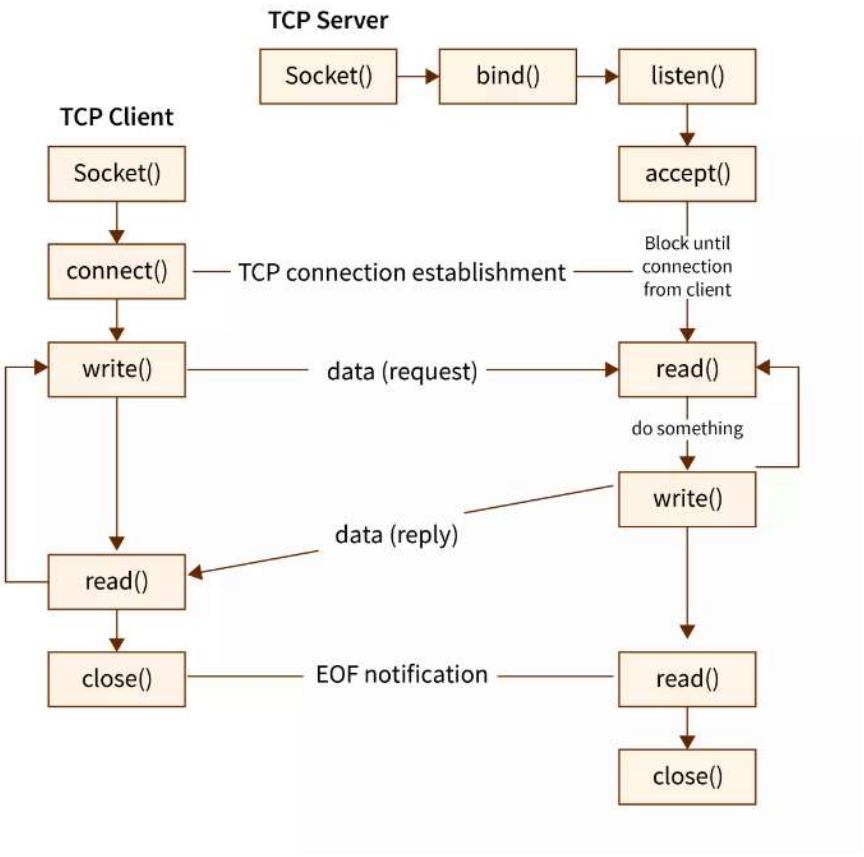
**Theory:**

- Sockets in computer networks are used for allowing the transmission of information between two processes of the same machines or different machines in the network.
- The socket is the combination of IP address and software port number used for communication between multiple processes.

**Socket Programming in TCP**

TCP stands for Transmission Control Protocol. TCP is a reliable connection-oriented protocol of the transport layer. TCP establishes the connection before data transmission. Steps for TCP socket programming for establishing TCP socket at the client-side:

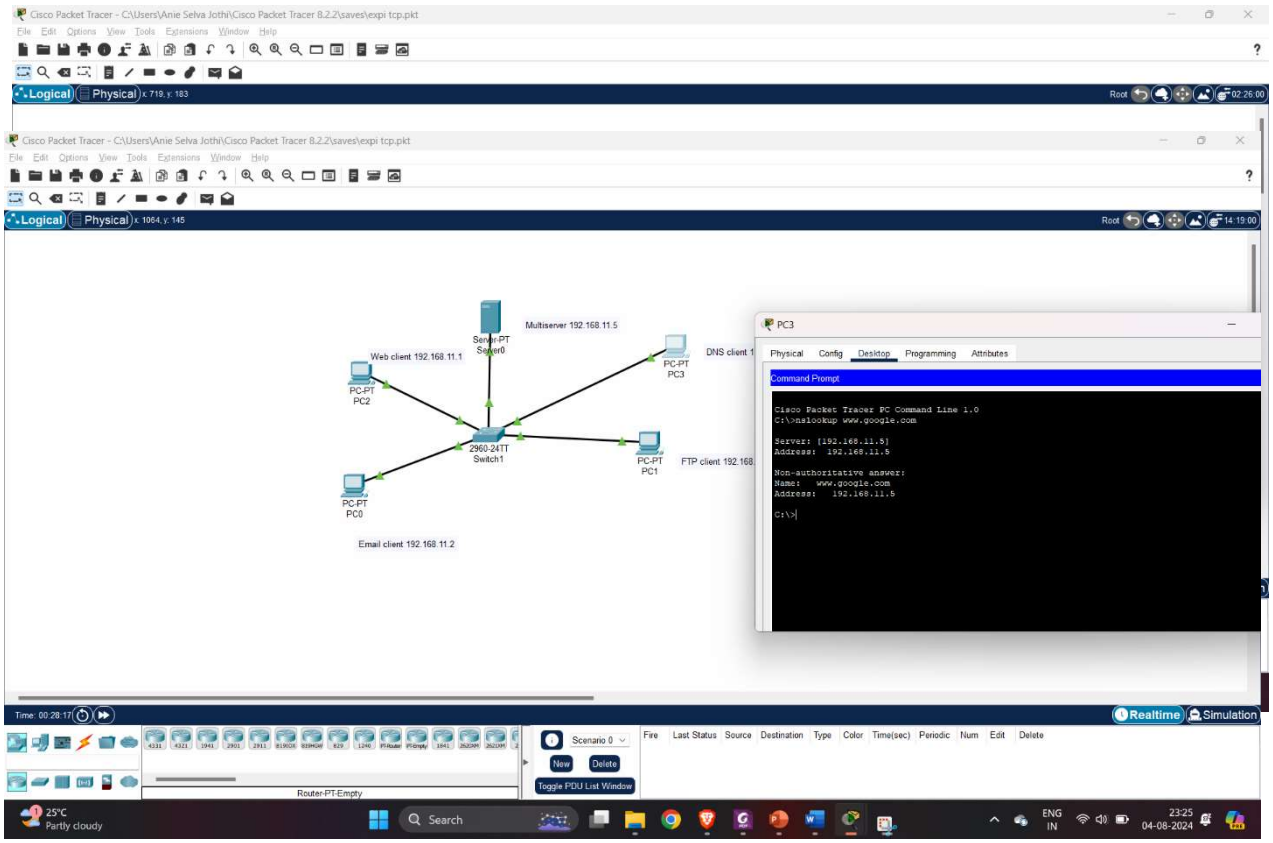
- The first step is to create a socket and use the socket() function to create a socket.
- Use the connect() function for connecting the socket to the server address.
- Transmit data between two communicating parties using read() and write() functions.
- After data transmission completion close the connection using close() function.

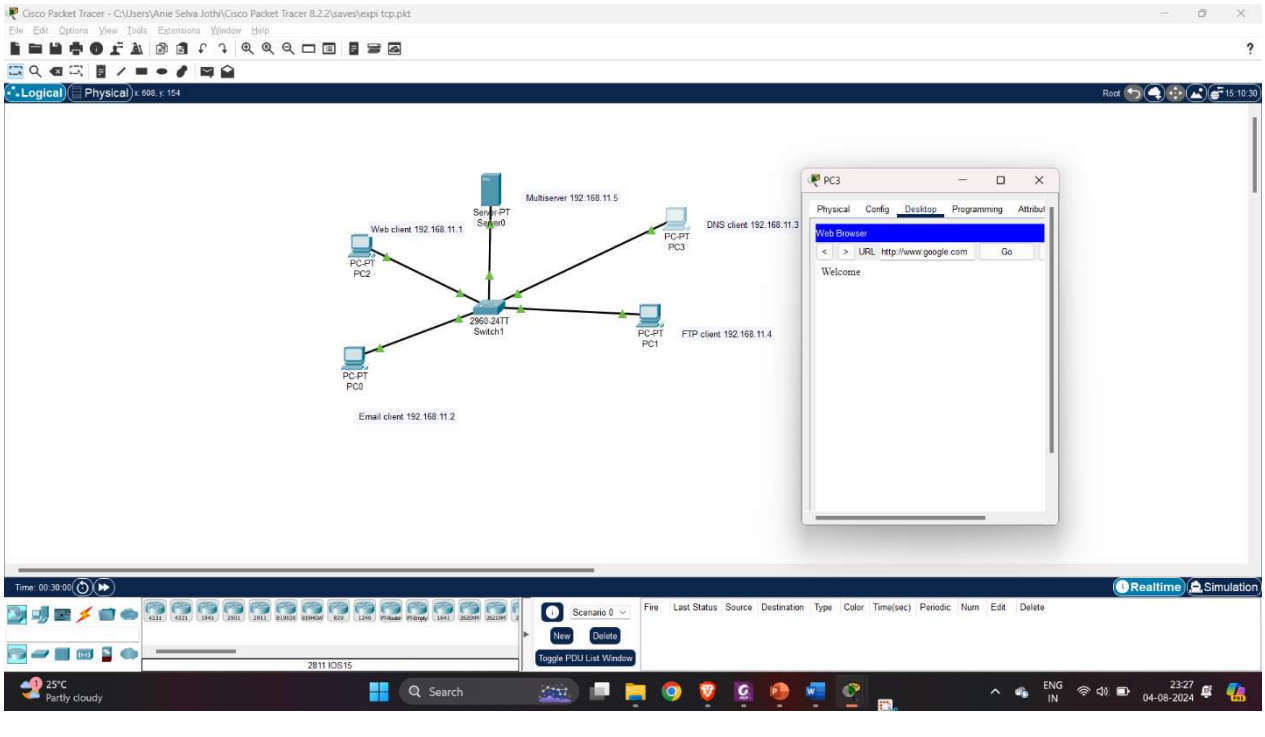



**Procedure:**

1. Enable the DNS server at the multiserver.
    - Go to multiserver--→Desktop-→services-→DNS service ON-→Add domain name and services
    - Go to HTTP service-→edit index page-→save
2. Access the DNS service from the node PC.
    - Go to DNS client→Command prompt-→type nslookup www.google.com--->resolve the IP address.
    - Go to the DNS client web browser-→type the URL www.google.com-->see the web content

## Simulation of Output:



**Result:**

Thus the client server model for DNS application using TCP, was successfully simulated in CISCO PACKET TRACER simulator**.**