

## DNS Simulation Server :

```
import java.io.*;
import java.net.*;
public class DNS_Server
{
    private static int indexOf(String[] array, String str)
    {
        str = str.trim();
        for (int i = 0; i < array.length; i++) {
            if (array[i].equals(str))
                return i;
        }
        return -1;
    }
    public static void main(String arg[]) throws IOException
    {
        String[] hosts = { "zoho.com", "gmail.com", "google.com", "facebook.com" };
        String[] ip = { "172.28.251.59", "172.217.11.5", "172.217.11.14", "31.13.71.36" };
        System.out.println("Press Ctrl + C to Quit");
        byte[] receivedata = new byte[1021];
        DatagramSocket serversocket = new DatagramSocket(1362);
        while (true) {
            DatagramPacket recvpack = new DatagramPacket(receivedata,
receivedata.length);
            serversocket.receive(recvpack);
            String sen = new String(recvpack.getData(), 0, recvpack.getLength());
            InetAddress ipaddress = recvpack.getAddress();
            int port = recvpack.getPort();
            String capsent;
            System.out.println("Request for host " + sen);
            if (indexOf(hosts, sen) != -1)
                capsent = ip[indexOf(hosts, sen)];
            else
                capsent = "Host Not Found";
            byte[] senddata = capsent.getBytes();
            DatagramPacket pack = new DatagramPacket(senddata, senddata.length,
ipaddress, port);
            serversocket.send(pack);
        }
    }
}
```

## DNS Simulation Client :

```
import java.io.*;
import java.net.*;
public class DNS_Client
{
    public static void main(String args[])throws IOException
    {
        BufferedReader br = new BufferedReader(new InputStreamReader(System.in));
        DatagramSocket clientsocket = new DatagramSocket();
        InetAddress ipaddress;
        if (args.length == 0)
            ipaddress = InetAddress.getLocalHost();
        else
            ipaddress = InetAddress.getByName(args[0]);
        byte[] senddata = new byte[1024];
        byte[] receivedata = new byte[1024];
        int portaddr = 1362;
        System.out.print("Enter the hostname : ");
        String sentence = br.readLine();
        senddata = sentence.getBytes();
        DatagramPacket pack = new
        DatagramPacket(senddata,senddata.length,ipaddress,portaddr);
        clientsocket.send(pack);
        DatagramPacket recvpack =new
        DatagramPacket(receivedata,receivedata.length);
        clientsocket.receive(recvpack);
        String modified = new String(recvpack.getData());
        System.out.println("IP Address: " + modified);
        clientsocket.close();
    }
}
```

```
Command Prompt
C:\Users\poove\OneDrive\Desktop\NC_Output>java DNS_Server
Press Ctrl + C to Quit
Request for host google.com
Request for host zoho.com
Request for host skct.in
^C
C:\Users\poove\OneDrive\Desktop\NC_Output>
```

```
Command Prompt
C:\Users\poove\OneDrive\Desktop\NC_Output>java DNS_Client
Enter the hostname : google.com
IP Address: 172.217.11.14

C:\Users\poove\OneDrive\Desktop\NC_Output>java DNS_Client
Enter the hostname : zoho.com
IP Address: 172.28.251.59

C:\Users\poove\OneDrive\Desktop\NC_Output>java DNS_Client
Enter the hostname : skct.in
IP Address: Host Not Found

C:\Users\poove\OneDrive\Desktop\NC_Output>
```