*Program for Domain Name System (DNS) using UDP*

**Client:**

import java.io.\*;

import java.net.\*;

import java.util.\*;

class Clientdns12

{

            public static void main(String args[])

            {

            try

            {

                        DatagramSocket client=new DatagramSocket();

                        InetAddress addr=InetAddress.getByName("127.0.0.1");

                        byte[] sendbyte=new byte[1024];

                        byte[] receivebyte=new byte[1024];

                        BufferedReader in=new BufferedReader(new InputStreamReader(System.in));

                        System.out.println("Enter the DOMAIN NAME or IP adress:");

                        String str=in.readLine();

                        sendbyte=str.getBytes();

                        DatagramPacket sender=new DatagramPacket(sendbyte,sendbyte.length,addr,1309);

                        client.send(sender);

                        DatagramPacket receiver=new DatagramPacket(receivebyte,receivebyte.length);

                        client.receive(receiver);

                        String s=new String(receiver.getData());

                        System.out.println("IP address or DOMAIN NAME: "+s.trim());

                        client.close();

            }

            catch(Exception e)

            {

                        System.out.println(e);

            }

            }

}

**Server:**

import java.io.\*;

import java.net.\*;

import java.util.\*;

class Serverdns12

{

            public static void main(String args[])

            {

            try

            {

                        DatagramSocket server=new DatagramSocket(1309);

                        while(true)

                        {

                                    byte[] sendbyte=new byte[1024];

                                    byte[] receivebyte=new byte[1024];

                                    DatagramPacket receiver=new DatagramPacket(receivebyte,receivebyte.length);

                                    server.receive(receiver);

                                    String str=new String(receiver.getData());

                                    String s=str.trim();

                                    //System.out.println(s);

                                    InetAddress addr=receiver.getAddress();

                                    int port=receiver.getPort();

                                    String ip[]={"165.165.80.80","165.165.79.1"};

                                    String name[]={"www.aptitudeguru.com","www.downloadcyclone.blogspot.com"};

                                    for(int i=0;i<ip.length;i++)

                                    {

                                                if(s.equals(ip[i]))

                                                {

                                                            sendbyte=name[i].getBytes();

                                                            DatagramPacket sender=new DatagramPacket(sendbyte,sendbyte.length,addr,port);

                                                            server.send(sender);

                                                            break;

                                                }

                                                else if(s.equals(name[i]))

                                                {

                                                            sendbyte=ip[i].getBytes();

                                                            DatagramPacket sender=new DatagramPacket(sendbyte,sendbyte.length,addr,port);

                                                            server.send(sender);

                                                            break;

                                                }

                                    }

                                    break;

                        }

            }

            catch(Exception e)

            {

                        System.out.println(e);

            }

            }

}

**Output**

|  |  |
| --- | --- |
| **Server** | **Client** |
| I:\ex>java Serverdns12 | I:\ex>java Clientdns12  Enter the DOMAIN NAME or IP adress:  165.165.80.80  IP address or DOMAIN NAME: www.aptitudeguru.com  I:\ex>java Clientdns12  Enter the DOMAIN NAME or IP adress:  www.downloadcyclone.blogspot.com  IP address or DOMAIN NAME: 165.165.79.1 |