

BCSE308P COMPUTER NETWORKS

ASSIGNMENT

NAME: RISHAAN JACOB KURIAKOSE

REG. NO.: 21BPS1394

UDP CLIENT&SERVER-GUI BASED DNS

Client Program

```
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
import java.lang.Exception;
import java.net.*;
import java.io.*;
class CreateLoginForm extends JFrame implements ActionListener
{
    JButton b1;
    JPanel newPanel;
    JLabel urlLabel;
    final JTextField textField1;
    CreateLoginForm()
    {
        urlLabel = new JLabel();
        urlLabel.setText("Enter URL: ");
        textField1 = new JTextField(15);
        b1 = new JButton("SUBMIT");
        newPanel = new JPanel(new GridLayout(3, 1));
        newPanel.add(urlLabel);
        newPanel.add(textField1);
        newPanel.add(b1);
        add(newPanel, BorderLayout.CENTER);
        b1.addActionListener(this);
        setTitle("GUI WEB-IP");
    }
    public void actionPerformed(ActionEvent ae)
    {
        try
        {
            String userValue = textField1.getText();
            BufferedReader inFromUser = new BufferedReader(new
InputStreamReader(System.in));
            DatagramSocket clientSocket = new DatagramSocket();
            System.out.print("Enter Server IP Address: ");
            InetAddress IPAddress =
InetAddress.getByName(inFromUser.readLine());
            byte[] sendData = new byte[1024], receiveData = new
byte[1024];
```

```

        String url = userValue;
        sendData = url.getBytes();
        DatagramPacket sendPacket = new DatagramPacket(sendData,
sendData.length, IPAddress, 9876);
        clientSocket.send(sendPacket);
        DatagramPacket receivePacket = new
DatagramPacket(receiveData, receiveData.length);
        clientSocket.receive(receivePacket);
        String modifiedSentence = new
String(receivePacket.getData());
        JFrame page = new JFrame();
        page.setVisible(true);
        JLabel wel_label = new JLabel("IP Address: " +
modifiedSentence);
        page.getContentPane().add(wel_label);
        clientSocket.close();
    }
    catch(Exception e)
    {
        JOptionPane.showMessageDialog(null, e.getMessage());
    }
}
}

```

Server Program

```
import java.io.*;
import java.net.*;
class UDPServerForWebIPData
{
    public static void main(String args[]) throws Exception
    {
        DatagramSocket serverSocket = new
DatagramSocket(9876);
        byte[] receiveData = new byte[1024], sendData = new
byte[1024];
        while (true)
        {
            DatagramPacket receivePacket = new
DatagramPacket(receiveData, receiveData.length);
            serverSocket.receive(receivePacket);
            String sentence = new String(receivePacket.getData());
            sentence = sentence.trim();
            InetAddress IPAddress = receivePacket.getAddress();
            int port = receivePacket.getPort();
            File f = new File("WebsiteIP.txt");
            FileReader fr = new FileReader(f);
            String str = null, temp = null;
            BufferedReader br = new BufferedReader(fr);
            int chk = 0;
            while ((str = br.readLine()) != null)
            {
                if (str.contains(sentence))
                {
                    temp = str;
                    chk = 1;
                }
            }
            fr.close();
            if (chk == 0)
                temp = "URL not found";
            sendData = temp.getBytes();
            DatagramPacket sendPacket = new DatagramPacket(sendData,
sendData.length, IPAddress, port);
            serverSocket.send(sendPacket);
        }
    }
}
```

Output

GUI WEB-IP	
Enter URL:	
www.google.com	IP Address: www.google.com121:255:89:203
SUBMIT	

```
PS C:\Users\RISHAAN\Desktop\VIT\W 2022-23\G - Computer Networks\Client> javac .\GUIWebIPData.java
PS C:\Users\RISHAAN\Desktop\VIT\W 2022-23\G - Computer Networks\Client> java GUIWebIPData
Enter Server IP Address: localhost
```

```
PS C:\Users\RISHAAN\Desktop\VIT\W 2022-23\G - Computer Networks\Server> javac .\UDPServerForWebIPData.java
PS C:\Users\RISHAAN\Desktop\VIT\W 2022-23\G - Computer Networks\Server> java UDPServerForWebIPData
```