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import java.io.*;
import java.net.*;
import java.applet.*;
import java.awt.*;
import java.awt.event.*;
import java.util.*;
public class PopClient extends Frame implements ActionListener
{
    TextField user,pass,host,msgno;
    TextArea msgta;
    Button signin,disp,prev,next,exit;
    int no_of_msg,n;
    String str;
    BufferedReader br1,br2;
    PrintWriter pw;
    Socket s=null;
    public PopClient()
    {
        super("POP");
        user=new TextField(20);
        pass=new TextField(20);
        host=new TextField(20);
        msgno=new TextField(20);
        msgta=new TextArea("",10,50);
        signin=new Button("LOGIN");
        disp=new Button("DISPLAY");
        next=new Button("NEXT");
        prev=new Button("PREVIOUS");
        exit=new Button("EXIT");
        no_of_msg=0;

        str=" ";
        n=0;

        Panel p1 = new Panel();
        Panel p2 = new Panel();
        Panel p3 = new Panel();
        Panel p4 = new Panel();
        setLayout(new GridLayout(3,1));
        setSize(400,400);
        p1.setLayout(new GridLayout(4,1));

        Panel p11 = new Panel();
        p11.add(new Label("User Name : "));
        p11.add(user);

        Panel p12 = new Panel();
        p12.add(new Label("Password : "));
        p12.add(pass);

        Panel p13 = new Panel();
        p13.add(new Label("Host Name : "));
        p13.add(host);

        Panel p14 = new Panel();
        p14.add(signin);
        p1.add(p11);
        p1.add(p12);
        p1.add(p13);
    }
}

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p1.add(p14);
p3.setLayout(new GridLayout(1,1));
p3.add(msgta);
p4.setLayout(new GridLayout(3,1));

        Panel p41 = new Panel();
p41.add(new Label("Enter message number :"));
p41.add(msgno);

        Panel p42 = new Panel();
p42.add(disg);
p42.add(new Label(""));
p42.add(prev);

        Panel p43 = new Panel();
p43.add(next);
p43.add(new Label(""));
p43.add(exit);
        p4.add(p41);
p4.add(p42);
p4.add(p43);

        add(p1);
add(p4);
add(p3);

        setVisible(true);
pass.setEchoChar('*');
signin.addActionListener(this);
disg.addActionListener(this);
prev.addActionListener(this);
next.addActionListener(this);
exit.addActionListener(this);
}

public void actionPerformed(ActionEvent ae)
{
    try
    {
        if(ae.getSource()==signin)
        {
            s=new Socket(host.getText(),110);
            br1=new BufferedReader(new InputStreamReader(s.getInputStream()));
            pw=new PrintWriter(s.getOutputStream(),true);
            msgta.append(br1.readLine());
            System.out.println("1");
            pw.println("user "+user.getText());
            System.out.println("2");
            msgta.append("\n"+br1.readLine());
            pw.println("PASS "+pass.getText());
            System.out.println("3");
            msgta.append("\n"+br1.readLine());
            pw.println("list");
            str=br1.readLine();
            msgta.append("\n"+str);
            StringTokenizer st=new StringTokenizer(str);
            String tmpstr=st.nextToken();

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        tmpstr=st.nextToken();
        no_of_msg=Integer.parseInt(tmpstr);
        while(!(br1.readLine().equals(".")));
    }
    if(ae.getSource()==disp)
    {
        n=Integer.parseInt(msgno.getText());
        display();
    }

        if(ae.getSource()==next)
        {
            n++;
            display();
        }
        if(ae.getSource()==prev)
        {
            n--;
            display();
        }
        if(ae.getSource()==exit)
        {
            if(s!=null)
                s.close();
            System.out.println("Connection terminated....");
            System.exit(1);
        }
    }
    catch(Exception c)
    {
        System.out.println(c);
    }
}

void display()
{
    msgta.setText("");
    msgno.setText(String.valueOf(n));
    if(n>0&&n<=no_of_msg)
    {
        System.out.println("N:"+n);
        pw.println("retr "+n);
        do
        {
            try
            {
                str=br1.readLine();
            }
            catch (Exception e)
            {}
            System.out.println("msg"+str);
            msgta.append("\n"+str);
        }while(!str.equals("."));
    }
    else
        msgta.setText("You have "+no_of_msg+" mails");
}

public static void main(String args[])

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{  
  PopClient p=new PopClient();  
}  
} //end of PopClient
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