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/\*References:

\*http://makemobiapps.blogspot.com/p/multiple-client-server-chat-programming.html

\*http://pirate.shu.edu/~wachsmut/Teaching/CSAS2214/Virtual/Lectures/chat-client-server.html

\*https://youtu.be/tOm8WlgU8tg

\*https://youtu.be/kqBmsLvWU14

\*/

import java.io.DataInputStream;

import java.io.DataOutputStream;

import java.io.IOException;

import java.net.Socket;

import java.util.StringTokenizer;

import java.util.logging.Level;

import java.util.logging.Logger;

import javax.swing.DefaultListModel;

import javax.swing.JOptionPane;

public class Myclient extends javax.swing.JFrame

{

String iD, clientID = ""; //ClientID referes to the username

String[] destinations = new String[20]; //Selecting & storing the users from the list

int count;

DataInputStream din;

DataOutputStream dout;

DefaultListModel dlm = new DefaultListModel(); //Initialising a new List for selecting the users

public Myclient()

{

initComponents();

}

Myclient(String i, Socket s)

{

iD = i;

try

{

initComponents();

UL.setModel(dlm);

idlabel.setText(i);

din = new DataInputStream(s.getInputStream());

dout = new DataOutputStream(s.getOutputStream());

new Read().start();

}

catch(Exception ex)

{

ex.printStackTrace();

}

}

class Read extends Thread

{

public void run()

{

while (true)

{

try

{

String m = din.readUTF();

if(m.contains(":;.,/="))

{

m = m.substring(6);

dlm.clear();

StringTokenizer st = new StringTokenizer(m,",");

while(st.hasMoreTokens())

{

String u = st.nextToken();

if(!iD.equals(u))

dlm.addElement(u);

}

}

else

{

msgBox.append(""+m+"\n");

}

}

catch(Exception ex)

{

break;

}

}

}

}

/\*\*

\* This method is called from within the constructor to initialize the form.

\* WARNING: Do NOT modify this code. The content of this method is always

\* regenerated by the Form Editor.

\*/

//Auto Generated Code

@SuppressWarnings("unchecked")

// <editor-fold defaultstate="collapsed" desc="Generated Code">

private void initComponents() {

jPanel1 = new javax.swing.JPanel();

jLabel1 = new javax.swing.JLabel();

idlabel = new javax.swing.JLabel();

selectall = new javax.swing.JButton();

jScrollPane1 = new javax.swing.JScrollPane();

msgBox = new javax.swing.JTextArea();

sendButton = new javax.swing.JButton();

sendText = new javax.swing.JTextField();

jLabel3 = new javax.swing.JLabel();

jScrollPane3 = new javax.swing.JScrollPane();

UL = new javax.swing.JList<>();

setDefaultCloseOperation(javax.swing.WindowConstants.EXIT\_ON\_CLOSE);

addWindowListener(new java.awt.event.WindowAdapter() {

public void windowClosing(java.awt.event.WindowEvent evt) {

formWindowClosing(evt);

}

});

jPanel1.setBackground(new java.awt.Color(204, 255, 204));

jLabel1.setFont(new java.awt.Font("Tahoma", 1, 14)); // NOI18N

jLabel1.setText("Hello:");

idlabel.setText(".....................");

selectall.setText("Select All");

selectall.setBorder(null);

selectall.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

selectallActionPerformed(evt);

}

});

msgBox.setColumns(20);

msgBox.setRows(5);

jScrollPane1.setViewportView(msgBox);

sendButton.setText("Send");

sendButton.setBorder(null);

sendButton.addActionListener(new java.awt.event.ActionListener() {

public void actionPerformed(java.awt.event.ActionEvent evt) {

sendButtonActionPerformed(evt);

}

});

jLabel3.setFont(new java.awt.Font("Tahoma", 1, 11)); // NOI18N

jLabel3.setText("Message:");

UL.addListSelectionListener(new javax.swing.event.ListSelectionListener() {

public void valueChanged(javax.swing.event.ListSelectionEvent evt) {

ULValueChanged(evt);

}

});

jScrollPane3.setViewportView(UL);

javax.swing.GroupLayout jPanel1Layout = new javax.swing.GroupLayout(jPanel1);

jPanel1.setLayout(jPanel1Layout);

jPanel1Layout.setHorizontalGroup(

jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(jPanel1Layout.createSequentialGroup()

.addGap(27, 27, 27)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(jPanel1Layout.createSequentialGroup()

.addComponent(jLabel1)

.addGap(33, 33, 33)

.addComponent(idlabel, javax.swing.GroupLayout.PREFERRED\_SIZE, 181, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addGroup(jPanel1Layout.createSequentialGroup()

.addComponent(jLabel3)

.addGap(18, 18, 18)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)

.addComponent(jScrollPane1, javax.swing.GroupLayout.DEFAULT\_SIZE, 270, Short.MAX\_VALUE)

.addComponent(sendText))))

.addGap(23, 23, 23)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING, false)

.addComponent(selectall, javax.swing.GroupLayout.Alignment.LEADING, javax.swing.GroupLayout.DEFAULT\_SIZE, 123, Short.MAX\_VALUE)

.addComponent(jScrollPane3, javax.swing.GroupLayout.Alignment.LEADING, javax.swing.GroupLayout.PREFERRED\_SIZE, 0, Short.MAX\_VALUE)

.addComponent(sendButton, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, Short.MAX\_VALUE))

.addContainerGap(31, Short.MAX\_VALUE))

);

jPanel1Layout.setVerticalGroup(

jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(jPanel1Layout.createSequentialGroup()

.addGap(54, 54, 54)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(idlabel, javax.swing.GroupLayout.Alignment.TRAILING, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, Short.MAX\_VALUE)

.addComponent(jLabel1, javax.swing.GroupLayout.Alignment.TRAILING, javax.swing.GroupLayout.DEFAULT\_SIZE, 23, Short.MAX\_VALUE)

.addComponent(selectall, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, Short.MAX\_VALUE))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)

.addComponent(jScrollPane1, javax.swing.GroupLayout.DEFAULT\_SIZE, 317, Short.MAX\_VALUE)

.addComponent(jScrollPane3))

.addGap(18, 18, 18)

.addGroup(jPanel1Layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING, false)

.addComponent(sendButton, javax.swing.GroupLayout.Alignment.LEADING, javax.swing.GroupLayout.DEFAULT\_SIZE, 32, Short.MAX\_VALUE)

.addComponent(sendText, javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(jLabel3, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, Short.MAX\_VALUE))

.addGap(24, 24, 24))

);

javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());

getContentPane().setLayout(layout);

layout.setHorizontalGroup(

layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(jPanel1, javax.swing.GroupLayout.PREFERRED\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.PREFERRED\_SIZE)

);

layout.setVerticalGroup(

layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

.addComponent(jPanel1, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, Short.MAX\_VALUE)

);

pack();

}// </editor-fold>

//On clicking send button besides the message

private void sendButtonActionPerformed(java.awt.event.ActionEvent evt) {

try

{

String m = sendText.getText(),mm = m;

//On clicking the select all button, clientID is set to select all active users

if("select\_all".equals(clientID))

{

dout.writeUTF(m);

sendText.setText("");

msgBox.append("< YOU to All > " + mm + "\n");

clientID = "";

}

else

{

for(int i=0; i<count; i++)

{

m = "#4344554@@@@@67667@@"+ destinations[i] +":" + mm;

dout.writeUTF(m);

sendText.setText("");

msgBox.append("< YOU to " + destinations[i] + " > " + mm + "\n");

}

}

}

catch(Exception ex)

{

JOptionPane.showMessageDialog(this,"Please select an user from the list.");

}

}

private void selectallActionPerformed(java.awt.event.ActionEvent evt) {

clientID = "select\_all"; //All users are selected

}

private void ULValueChanged(javax.swing.event.ListSelectionEvent evt) {

//clientID = (String)UL.getSelectedValue();

Object obj[] = UL.getSelectedValues(); //gets all the values from the user list

count = 0;

//Part of the code referenced from lines 30-35 --> https://way2java.com/swing/jlist-with-multiple-selection/

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

{

destinations[i] = (String)obj[i];

count++;

}

}

//Code for exit window

private void formWindowClosing(java.awt.event.WindowEvent evt) {

String i = "exit\_window";

try

{

dout.writeUTF(i);

this.dispose();

}

catch(IOException ex)

{

Logger.getLogger(Myclient.class.getName()).log(Level.SEVERE, null, ex);

}

}

/\*\*

\* @param args the command line arguments

\*/

// Variables declaration - do not modify

private javax.swing.JList<String> UL;

private javax.swing.JLabel idlabel;

private javax.swing.JLabel jLabel1;

private javax.swing.JLabel jLabel3;

private javax.swing.JPanel jPanel1;

private javax.swing.JScrollPane jScrollPane1;

private javax.swing.JScrollPane jScrollPane3;

private javax.swing.JTextArea msgBox;

private javax.swing.JButton selectall;

private javax.swing.JButton sendButton;

private javax.swing.JTextField sendText;

// End of variables declaration

}