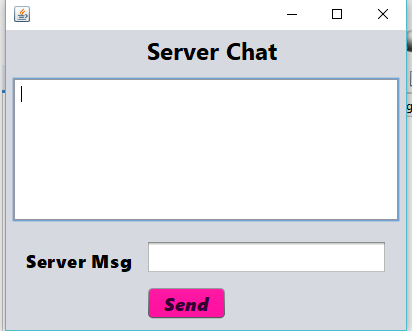
Socket Progrmaming Code

**ServerjFrame Code**

Design the following jFrame form for the Server side chat Screen



**import java.io.DataInputStream;**

**import java.io.DataOutputStream;**

**import java.net.ServerSocket;**

**import java.net.Socket;**

import javax.swing.JOptionPane;

import javax.swing.plaf.RootPaneUI;

/\*

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\*/

/\*\*

\*

\* @author Bilawal Zaib

\*/

public class ServerChat extends javax.swing.JFrame {

**static ServerSocket ss;**

**static Socket s;**

**static DataInputStream din;**

**static DataOutputStream dout;**

/\*\*

\* Creates new form ServerChat

\*/

public ServerChat() {

initComponents();

}

/\*\*

\* 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.

\*/

@SuppressWarnings("unchecked")

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

private void initComponents() {

jLabel1 = new javax.swing.JLabel();

jPanel1 = new javax.swing.JPanel();

jLabel2 = new javax.swing.JLabel();

jScrollPane1 = new javax.swing.JScrollPane();

ServerArea = new javax.swing.JTextArea();

txtServer = new javax.swing.JTextField();

btnSend = new javax.swing.JButton();

jLabel3 = new javax.swing.JLabel();

jLabel1.setText("jLabel1");

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

jPanel1.setBackground(new java.awt.Color(0, 255, 255));

jLabel2.setFont(new java.awt.Font("Segoe UI", 1, 24)); // NOI18N

jLabel2.setHorizontalAlignment(javax.swing.SwingConstants.CENTER);

jLabel2.setText("Server Chat");

ServerArea.setColumns(20);

ServerArea.setRows(5);

jScrollPane1.setViewportView(ServerArea);

btnSend.setBackground(new java.awt.Color(255, 0, 153));

btnSend.setFont(new java.awt.Font("Segoe UI Black", 3, 18)); // NOI18N

btnSend.setForeground(new java.awt.Color(51, 0, 51));

btnSend.setText("Send");

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

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

btnSendActionPerformed(evt);

}

});

jLabel3.setFont(new java.awt.Font("Segoe UI Black", 1, 18)); // NOI18N

jLabel3.setText("Server Msg");

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

jPanel1.setLayout(jPanel1Layout);

jPanel1Layout.setHorizontalGroup(

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

.addGroup(jPanel1Layout.createSequentialGroup()

.addContainerGap()

.addComponent(jLabel2, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, Short.MAX\_VALUE))

.addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel1Layout.createSequentialGroup()

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

.addComponent(jScrollPane1)

.addGroup(jPanel1Layout.createSequentialGroup()

.addGap(14, 14, 14)

.addComponent(jLabel3)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 14, Short.MAX\_VALUE)

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

.addGroup(jPanel1Layout.createSequentialGroup()

.addComponent(txtServer)

.addGap(13, 13, 13))

.addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel1Layout.createSequentialGroup()

.addComponent(btnSend, javax.swing.GroupLayout.PREFERRED\_SIZE, 81, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addGap(173, 173, 173)))))

.addContainerGap())

);

jPanel1Layout.setVerticalGroup(

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

.addGroup(jPanel1Layout.createSequentialGroup()

.addContainerGap()

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

.addGroup(jPanel1Layout.createSequentialGroup()

.addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED\_SIZE, 29, javax.swing.GroupLayout.PREFERRED\_SIZE)

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

.addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED\_SIZE, 145, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addGap(18, 18, 18)

.addComponent(txtServer, javax.swing.GroupLayout.PREFERRED\_SIZE, 34, javax.swing.GroupLayout.PREFERRED\_SIZE))

.addComponent(jLabel3))

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

.addComponent(btnSend, javax.swing.GroupLayout.PREFERRED\_SIZE, 34, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addContainerGap(10, Short.MAX\_VALUE))

);

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

getContentPane().setLayout(layout);

layout.setHorizontalGroup(

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

.addGroup(layout.createSequentialGroup()

.addContainerGap()

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

);

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>

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

// TODO add your handling code here:

**try**

**{**

**String msgout="";**

**msgout=txtServer.getText().trim();**

**dout.writeUTF(msgout);**

**}**

**catch(Exception e)**

**{**

**System.err.println("Error: "+e.toString());**

**}**

}

/\*\*

\* @param args the command line arguments

\*/

public static void main(String args[]) {

JOptionPane.showMessageDialog(null, "Server Code....");

/\* Set the Nimbus look and feel \*/

//<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">

/\* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.

\* For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html

\*/

try {

for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {

if ("Nimbus".equals(info.getName())) {

javax.swing.UIManager.setLookAndFeel(info.getClassName());

break;

}

}

} catch (ClassNotFoundException ex) {

java.util.logging.Logger.getLogger(ServerChat.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

} catch (InstantiationException ex) {

java.util.logging.Logger.getLogger(ServerChat.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

} catch (IllegalAccessException ex) {

java.util.logging.Logger.getLogger(ServerChat.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

} catch (javax.swing.UnsupportedLookAndFeelException ex) {

java.util.logging.Logger.getLogger(ServerChat.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

}

//</editor-fold>

/\* Create and display the form \*/

java.awt.EventQueue.invokeLater(new Runnable() {

public void run() {

new ServerChat().setVisible(true);

}

});

**String msgin="";**

**try**

**{**

**JOptionPane.showMessageDialog(null, "Server Code Inside....");**

**ss=new ServerSocket(8080);**

**JOptionPane.showMessageDialog(null, "Server Code after Port No");**

**s=ss.accept();**

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

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

**while(!msgin.equals("exit"))**

**{**

**msgin=din.readUTF();**

**ServerArea.setText(ServerArea.getText().trim()+"\nClient\t"+msgin);**

**}**

}

catch(Exception e)

{

System.out.println("Error occured: "+e.toString());

}

}

// Variables declaration - do not modify

private static javax.swing.JTextArea ServerArea;

private javax.swing.JButton btnSend;

private javax.swing.JLabel jLabel1;

private javax.swing.JLabel jLabel2;

private javax.swing.JLabel jLabel3;

private javax.swing.JPanel jPanel1;

private javax.swing.JScrollPane jScrollPane1;

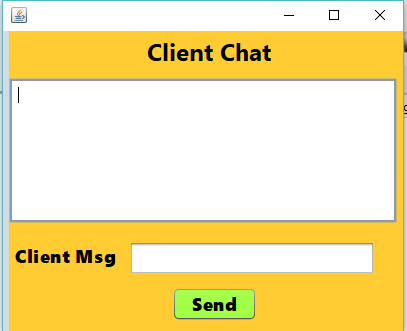
private javax.swing.JTextField txtServer;

// End of variables declaration

}

**Client jFrame Code**

Design the following jFrame form for the Client side chat Screen



/\*

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\*/

**import java.io.DataInputStream;**

**import java.io.DataOutputStream;**

**import java.net.ServerSocket;**

**import java.net.Socket;**

import javax.swing.JOptionPane;

import javax.swing.JTextArea;

/\*\*

\*

\* @author Bilawal Zaib

\*/

public class ClientChat extends javax.swing.JFrame {

**static Socket s;**

**static DataInputStream din;**

**static DataOutputStream dout;**

/\*\*

\* Creates new form ClientChat

\*/

public ClientChat() {

initComponents();

}

/\*\*

\* 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.

\*/

@SuppressWarnings("unchecked")

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

private void initComponents() {

jPanel1 = new javax.swing.JPanel();

jLabel2 = new javax.swing.JLabel();

jScrollPane1 = new javax.swing.JScrollPane();

ClientArea = new javax.swing.JTextArea();

txtClient = new javax.swing.JTextField();

btnClient = new javax.swing.JButton();

jLabel1 = new javax.swing.JLabel();

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

jPanel1.setBackground(new java.awt.Color(255, 204, 51));

jLabel2.setFont(new java.awt.Font("Segoe UI", 1, 24)); // NOI18N

jLabel2.setHorizontalAlignment(javax.swing.SwingConstants.CENTER);

jLabel2.setText("Client Chat");

ClientArea.setColumns(20);

ClientArea.setRows(5);

jScrollPane1.setViewportView(ClientArea);

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

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

txtClientActionPerformed(evt);

}

});

btnClient.setBackground(new java.awt.Color(153, 255, 51));

btnClient.setFont(new java.awt.Font("Segoe UI Black", 1, 18)); // NOI18N

btnClient.setText("Send");

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

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

btnClientActionPerformed(evt);

}

});

jLabel1.setFont(new java.awt.Font("Segoe UI Black", 1, 18)); // NOI18N

jLabel1.setText("Client Msg");

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

jPanel1.setLayout(jPanel1Layout);

jPanel1Layout.setHorizontalGroup(

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

.addGroup(jPanel1Layout.createSequentialGroup()

.addContainerGap()

.addComponent(jLabel2, javax.swing.GroupLayout.DEFAULT\_SIZE, javax.swing.GroupLayout.DEFAULT\_SIZE, Short.MAX\_VALUE))

.addGroup(jPanel1Layout.createSequentialGroup()

.addComponent(jScrollPane1)

.addContainerGap())

.addGroup(jPanel1Layout.createSequentialGroup()

.addGap(163, 163, 163)

.addComponent(btnClient, javax.swing.GroupLayout.PREFERRED\_SIZE, 85, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addGap(0, 0, Short.MAX\_VALUE))

.addGroup(javax.swing.GroupLayout.Alignment.TRAILING, jPanel1Layout.createSequentialGroup()

.addContainerGap()

.addComponent(jLabel1)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED, 13, Short.MAX\_VALUE)

.addComponent(txtClient, javax.swing.GroupLayout.PREFERRED\_SIZE, 246, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addGap(28, 28, 28))

);

jPanel1Layout.setVerticalGroup(

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

.addGroup(jPanel1Layout.createSequentialGroup()

.addContainerGap()

.addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED\_SIZE, 29, javax.swing.GroupLayout.PREFERRED\_SIZE)

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

.addComponent(jScrollPane1, javax.swing.GroupLayout.PREFERRED\_SIZE, 145, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addGap(18, 18, 18)

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

.addComponent(txtClient, javax.swing.GroupLayout.PREFERRED\_SIZE, 34, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addComponent(jLabel1))

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

.addComponent(btnClient, javax.swing.GroupLayout.PREFERRED\_SIZE, 34, javax.swing.GroupLayout.PREFERRED\_SIZE)

.addContainerGap(10, Short.MAX\_VALUE))

);

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

getContentPane().setLayout(layout);

layout.setHorizontalGroup(

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

.addGroup(layout.createSequentialGroup()

.addContainerGap()

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

);

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>

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

// TODO add your handling code here:

**try**

**{**

**String msgout="";**

**msgout=txtClient.getText().trim();**

**dout.writeUTF(msgout);**

**}**

**catch(Exception e)**

**{**

**System.err.println("Error: "+e.toString());**

**}**

}

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

// TODO add your handling code here:

}

/\*\*

\* @param args the command line arguments

\*/

public static void main(String args[]) {

JOptionPane.showMessageDialog(null, "Client Code....");

/\* Set the Nimbus look and feel \*/

//<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">

/\* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.

\* For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html

\*/

try {

for (javax.swing.UIManager.LookAndFeelInfo info : javax.swing.UIManager.getInstalledLookAndFeels()) {

if ("Nimbus".equals(info.getName())) {

javax.swing.UIManager.setLookAndFeel(info.getClassName());

break;

}

}

} catch (ClassNotFoundException ex) {

java.util.logging.Logger.getLogger(ClientChat.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

} catch (InstantiationException ex) {

java.util.logging.Logger.getLogger(ClientChat.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

} catch (IllegalAccessException ex) {

java.util.logging.Logger.getLogger(ClientChat.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

} catch (javax.swing.UnsupportedLookAndFeelException ex) {

java.util.logging.Logger.getLogger(ClientChat.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);

}

//</editor-fold>

/\* Create and display the form \*/

java.awt.EventQueue.invokeLater(new Runnable() {

public void run() {

new ClientChat().setVisible(true);

}

});

**String msgin="";**

**try**

**{**

**s=new Socket("127.0.0.1",8080);**

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

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

**while(!msgin.equals("exit"))**

**{**

**msgin=din.readUTF();**

**ClientArea.setText(ClientArea.getText().trim()+"\nSir Saif:\t"+msgin);**

**}**

**}**

**catch(Exception e)**

**{**

**System.out.println("Error occured: "+e.toString());**

**}**

}

// Variables declaration - do not modify

private static javax.swing.JTextArea ClientArea;

private javax.swing.JButton btnClient;

private javax.swing.JLabel jLabel1;

private javax.swing.JLabel jLabel2;

private javax.swing.JPanel jPanel1;

private javax.swing.JScrollPane jScrollPane1;

private javax.swing.JTextField txtClient;

// End of variables declaration

}

Output is shwon here

