E:\chat.java

```java
1   package chatapp;
2
3   import java.io.*;
4   import java.util.*;
5   import java.awt.*;
6   import javax.swing.*;
7   import java.awt.event.*;
8   import java.text.*;
9   import java.net.*;
10  import javax.swing.border.*;
11
12  public class Client implements ActionListener {
13
14      JTextField text;
15      static JPanel a1;
16      static Box vertical = Box.createVerticalBox();
17      static JFrame f = new JFrame();
18      static DataOutputStream dout;
19
20      public static JPanel formatLabel(String out) {
21          JPanel panel = new JPanel();
22          panel.setLayout(new BoxLayout(panel, BoxLayout.Y_AXIS));
23
24          JLabel output = new JLabel("<html><p style=\"width: 150px\">" + out + "</p></html>");
25          output.setFont(new Font("Tahoma", Font.PLAIN, 16));
26          output.setBackground(new Color(227, 250, 248));
27          output.setOpaque(true);
28          output.setBorder(new EmptyBorder(15, 15, 15, 50));
29          panel.add(output);
30          Calendar cal = Calendar.getInstance();
31          SimpleDateFormat sdf = new SimpleDateFormat("HH:mm");
32          JLabel time = new JLabel();
33          time.setText(sdf.format(cal.getTime()));
34          panel.add(time);
35          return panel;
36      }
37
38      public void actionPerformed(ActionEvent ae) {
39          try {
40              String out = text.getText();
41              JPanel p2 = formatLabel(out);
42              a1.setLayout(new BorderLayout());
43              JPanel right = new JPanel(new BorderLayout());
44              right.add(p2, BorderLayout.LINE_END);
45              vertical.add(right);
46              vertical.add(Box.createVerticalStrut(15));
47              a1.add(vertical, BorderLayout.PAGE_START);
48              dout.writeUTF(out);
49              text.setText("");
50              f.repaint();
51              f.invalidate();
52              f.validate();
53          } catch (Exception e) {
54              e.printStackTrace();
```

```java
55              }
56          }
57
58      public static void main(String[] args) {
59          new Client();
60          try {
61              //object of the class Socket
62              Socket s = new Socket("127.0.0.1", 6001);
63              DataInputStream din = new DataInputStream(s.getInputStream());
64              dout = new DataOutputStream(s.getOutputStream());
65              while(true) {
66                  a1.setLayout(new BorderLayout());
67                  String msg = din.readUTF();
68                  JPanel panel = formatLabel(msg);
69                  JPanel left = new JPanel(new BorderLayout());
70                  left.add(panel, BorderLayout.LINE_START);
71                  vertical.add(left);
72                  vertical.add(Box.createVerticalStrut(15));
73                  a1.add(vertical, BorderLayout.PAGE_START);
74                  f.validate();
75              }
76          } catch (Exception e) {
77              e.printStackTrace();
78          }
79      }
80
81      Client() {
82          f.setLayout(null);
83          JPanel p1 = new JPanel();
84          p1.setBackground(new Color(37, 147, 211));
85          p1.setBounds(0, 0, 450, 70);
86          p1.setLayout(null);
87          f.add(p1);
88          ImageIcon i1 = new ImageIcon(ClassLoader.getSystemResource("icons/3.png"));
89          Image i2 = i1.getImage().getScaledInstance(25, 25, Image.SCALE_DEFAULT);
90          ImageIcon i3 = new ImageIcon(i2);
91          JLabel back = new JLabel(i3);
92          back.setBounds(5, 20, 25, 25);
93          p1.add(back);
94          back.addMouseListener(new MouseAdapter() {
95              public void mouseClicked(MouseEvent ae) {
96                  System.exit(0);
97              }
98          });
99
100         ImageIcon i4 = new ImageIcon(ClassLoader.getSystemResource(""));
101         Image i5 = i4.getImage().getScaledInstance(50, 50, Image.SCALE_DEFAULT);
102         ImageIcon i6 = new ImageIcon(i5);
103         JLabel profile = new JLabel(i6);
104         profile.setBounds(40, 10, 50, 50);
105         p1.add(profile);
106
107         ImageIcon i7 = new ImageIcon(ClassLoader.getSystemResource("images/video.png"));
108         Image i8 = i7.getImage().getScaledInstance(30, 30, Image.SCALE_DEFAULT);
109         ImageIcon i9 = new ImageIcon(i8);
110         JLabel video = new JLabel(i9);
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111            video.setBounds(300, 20, 30, 30);
112            p1.add(video);
113
114            ImageIcon i10 = new ImageIcon(ClassLoader.getSystemResource("images/phone.png"));
115            Image i11 = i10.getImage().getScaledInstance(35, 30, Image.SCALE_DEFAULT);
116            ImageIcon i12 = new ImageIcon(i11);
117            JLabel phone = new JLabel(i12);
118            phone.setBounds(360, 20, 35, 30);
119            p1.add(phone);
120
121            ImageIcon i13 = new ImageIcon(ClassLoader.getSystemResource("images/3icon.png"));
122            Image i14 = i13.getImage().getScaledInstance(10, 25, Image.SCALE_DEFAULT);
123            ImageIcon i15 = new ImageIcon(i14);
124            JLabel morevert = new JLabel(i15);
125            morevert.setBounds(420, 20, 10, 25);
126            p1.add(morevert);
127
128            JLabel name = new JLabel("Me");
129            name.setBounds(110, 15, 100, 18);
130            name.setForeground(Color.WHITE);
131            name.setFont(new Font("SAN_SERIF", Font.BOLD, 18));
132            p1.add(name);
133
134            JLabel status = new JLabel("Active");
135            status.setBounds(110, 35, 100, 18);
136            status.setForeground(Color.WHITE);
137            status.setFont(new Font("SAN_SERIF", Font.BOLD, 14));
138            p1.add(status);
139
140            a1 = new JPanel();
141            a1.setBounds(5, 75, 440, 500);
142            f.add(a1);
143
144            text = new JTextField();
145            text.setBounds(5, 575, 310, 40);
146            text.setFont(new Font("SAN_SERIF", Font.PLAIN, 16));
147            f.add(text);
148
149            JButton send = new JButton("Send");
150            send.setBounds(320, 575, 123, 40);
151            send.setBackground(new Color(37, 147, 211));
152            send.setForeground(Color.WHITE);
153            send.addActionListener(this);
154            send.setFont(new Font("SAN_SERIF", Font.PLAIN, 16));
155            f.add(send);
156
157            f.setSize(450, 700);
158            f.setLocation(800, 50);
159            f.setUndecorated(true);
160            f.getContentPane().setBackground(Color.WHITE);
161
162            f.setVisible(true);
163        }
164 }
```