## ServerTriangulation.java

```
1 package Serveur.server;
 3 import java.io.FileInputStream;
 4 import java.io.IOException;
 5 import java.net.ServerSocket;
 6 import java.net.Socket;
7 import java.util.ArrayList;
9 import Serveur.maths.Fonction;
10
11 public class ServerTriangulation implements ConnectionObserver, Runnable {
      public static final int DEFAULT_TIMEOUT = 2000;
12
13
      public final int port;
14
      private ServerSocket socket;
15
      private volatile boolean active = false;
16
      protected ArrayList<ClientTriangulation> clients = new
  ArrayList<ClientTriangulation>();
17
      private ConnectionListener listener;
18
      private Thread listenerThread;
19
20
      private String codeHtml[];
21
      private String entete = "HTTP/1.1 200 OK\r\n"
               + "Content-Type: text/html\r\n" + "Connection: close\r\n\r\n";
22
23
24
      public Thread thread;
25
26
      public ServerTriangulation(int port) throws IOException {
27
          initCodeHtml();
28
29
          this.port = port;
30
           socket = new ServerSocket(port);
31
           socket.setSoTimeout(DEFAULT_TIMEOUT);
32
33
          thread = new Thread(this);
          listener = new ConnectionListener(socket, this);
35
          listenerThread = new Thread(listener);
36
      }
37
38
      private void initCodeHtml() throws IOException {
39
          ArrayList<String> morceaux = new ArrayList<String>();
40
41
          FileInputStream in = new FileInputStream(
42
                   "C:\\Users\\Kirito\\Documents\\TIPE\\site\\index.html");
43
          StringBuffer strBuf;
          String code = "";
44
45
          byte[] buf = new byte[1024];
46
          int len, i;
47
48
          do {
49
               len = in.read(buf);
50
51
               if (len > 0) {
52
                   strBuf = new StringBuffer();
53
54
                   for (i = 0; i < len; i++)
55
                       strBuf.append((char) buf[i]);
56
57
                   code += strBuf.toString();
58
59
          } while (len == buf.length);
60
61
          in.close();
```

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```
62
           int index = 0, startIndex = 0;
 63
 64
            do {
                index = code.indexOf("[{", index);
 65
 66
 67
                if (index != -1) {
 68
                    String morceau = code.substring(startIndex, index);
 69
 70
                    index = code.indexOf("}]", index) + 2;
 71
                    morceaux.add(morceau);
 72
                    startIndex = index;
 73
 74
            } while (index != -1);
 75
           morceaux.add(code.substring(startIndex));
 76
 77
 78
            codeHtml = morceaux.toArray(new String[morceaux.size()]);
 79
           morceaux.clear();
 80
       }
 81
 82
       @Override
 83
       public void newClient(Socket socket) {
 84
           try {
                socket.setSoTimeout(DEFAULT TIMEOUT);
 85
 86
 87
                ClientTriangulation client = new ClientTriangulation(socket, this);
 88
                client.start();
 89
                clients.add(client);
 90
 91
                System.out.print(
                        "Le client " + socket.getInetAddress() + " est connecté. ("
 92
 93
                                 + clients.size() + " clients au total)");
 94
            } catch (IOException e) {
 95
                e.printStackTrace();
 96
            }
 97
       }
 98
 99
       public String constructHtml() {
            String code = "";
100
101
102
            for (int i = 0; i < codeHtml.length; i++) {</pre>
103
                code += codeHtml[i];
104
105
                if (i < codeHtml.length - 1) {</pre>
106
                    code += Math.random();
107
                }
108
           }
109
110
           return entete + code;
       }
111
112
113
       @Override
114
       public void run() {
115
           active = true;
116
117
           while (active) {
118
119
            }
120
121
           listener.close();
122
123
           while (listener.isRunning());
```

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```
124
125
          try {
126
              socket.close();
127
           } catch (IOException e) {
128
               e.printStackTrace();
129
130
131
          clients.clear();
           active = false;
132
133
       }
134
       public void start() {
135
           listenerThread.start();
136
137
           thread.start();
138
       }
139
140
       public boolean isActive() {
141
          return active;
142
143
144
       public void close() {
145
         active = false;
146
147
       public synchronized Object doModifications(Fonction f) {
148
149
          return f.method();
       }
150
151 }
```