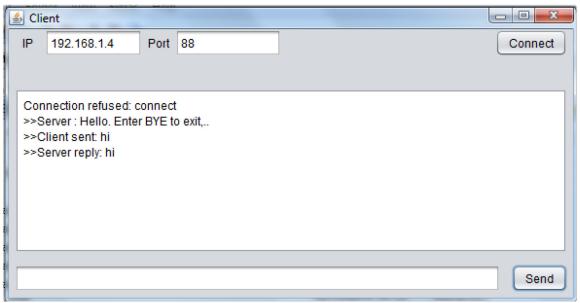


## Practical Applications in CS I - Session 04.02



Client	Class	Socket clientSocket = null;
	decleratio	PrintWriter clientWriter = null;
	n	BufferedReader clientReader = null;
		String ip;
		int port;
	Connect	<pre>ip = jTextField2.getText();</pre>
	button	port =
		<pre>Integer.parseInt(jTextField3.getText());</pre>
		try {
		<pre>clientSocket = new Socket(ip, port);</pre>
		clientWriter = new
		PrintWriter(clientSocket.getOutputStream(),
		true);
		clientReader = new BufferedReader(new
		InputStreamReader(clientSocket.getInputStream
		()));
		jTextArea1.append(clientReader.readLine()+"\n")
		;



```
} catch (Exception e) {
                   jTextArea1.append(e.getMessage()+"\n");
Send
            try {
                   clientWriter.println(jTextField1.getText());
button
                   ¡TextArea1.append(">>Client sent: " +
            jTextField1.getText()+"\n");
                   ¡TextArea1.append(">>Server reply: " +
            clientReader.readLine()+"\n");
                 } catch (Exception e) {
                   ¡TextArea1.append(e.getMessage()+"\n");
                 } finally {
                   if
            (jTextField1.getText().equalsIgnoreCase("BYE")) {
                     try {
                        if (clientWriter != null) {
                          clientWriter.close();
                        if (clientReader != null) {
                          clientReader.close();
                        if (clientSocket != null) {
                          clientSocket.close();
                        ¡TextArea1.append(">>Client: Socket
            closed.\n");
                      } catch (Exception e) {
            jTextArea1.append(e.getMessage()+"\n");
```



```
jTextField1.setText("");
Server
                                                              _ D X
 IΡ
                 Port 88
                                                              Connect
                                                               Listen
  >>Client is now connected...
 >>Client send : hi
                                                                Send
Server
    Class
                  int port;
    declaration
                     ServerSocket ss = null;
                     Timer t1;
                     Timer t2;
                     BufferedReader serverReader = null;
                     PrintStream serverWriter = null;
                     Socket incoming = null;
    initSocket
                  void initSocket() {
                       port =
                   Integer.parseInt(jTextField3.getText());
                       try {
                          ss = new ServerSocket(port);
                       } catch (IOException e) {
                          ¡TextArea1.append(e.getMessage() +
                   "\n");
                       try {
                          incoming = ss.accept();
```



```
} catch (IOException e) {
                 try {
                   incoming.setSoTimeout(60000); //60
             seconds
                 } catch (SocketException e) {
                 try {
                   serverReader = new BufferedReader(new
             InputStreamReader(incoming.getInputStream())
            );
                   serverWriter = new
             PrintStream(incoming.getOutputStream());
                   serverWriter.println(">>Server: Hello.
             Enter BYE to exit,..");
                   jTextArea1.append(">>Client is now
             connected,..\n");
                   //readSocket();
                   t1.stop();
                   t2.start();
                   ¡Button3.setText("Listen");
                   jButton3.setEnabled(false);
                 } catch (Exception e) {
                   ¡TextArea1.append(e.getMessage() +
             "\n");
readSocket
            void readSocket() {
                 try {
                   String str = serverReader.readLine();
```



```
serverWriter.println(str);
                   ¡TextArea1.append(">>Client send : " +
             str + "\n");
                   if (str.equalsIgnoreCase("BYE")) {
                      t2.stop();
                      jTextArea1.append(">> Cleint is now
             dis-connected,..\n");
                      incoming.close();
                      ss.close();
                      ¡Button3.setEnabled(true);
                 } catch (Exception e) {
             jTextArea1.append(e.getMessage()+"\n");
                 }
             t1 = new Timer(1000, new ActionListener() {
Class
                    @Override
constructo
                    public void actionPerformed(ActionEvent
             e) {
                      initSocket();
                 });
                 t2 = new Timer(1000, new ActionListener() {
                    @Override
                    public void actionPerformed(ActionEvent
             e) {
                      readSocket();
                    }
                 });
             if
Listen
             (jButton3.getText().equalsIgnoreCase("Listen"))
button
```



```
t1.start();

jButton3.setText("Stop");
} else {

t1.stop();

jButton3.setText("Listen");
}
```