**EchoServer.java**

**import java.io.\*;**

**import java.net.\*;**

**public class EchoServer**

**{**

**public EchoServer(int portnum)**

**{**

**try**

**{**

**server = new ServerSocket(portnum);**

**}**

**catch (Exception err)**

**{**

**System.out.println(err);**

**}**

**}**

**public void serve()**

**{**

**try**

**{**

**while (true)**

**{**

**Socket client = server.accept();**

**BufferedReader r = new BufferedReader(new InputStreamReader(client.getInputStream()));**

**PrintWriter w = new PrintWriter(client.getOutputStream(), true);**

**w.println("Welcome to the Java EchoServer. Type 'bye' to close.");**

**String line;**

**do**

**{**

**line = r.readLine();**

**if ( line != null )**

**w.println("Got: "+ line);**

**}**

**while ( !line.trim().equals("bye") );**

**client.close();**

**}**

**}**

**catch (Exception err)**

**{**

**System.err.println(err);**

**}**

**}**

**public static void main(String[] args)**

**{**

**EchoServer s = new EchoServer(9999);**

**s.serve();**

**}**

**private ServerSocket server;**

**}**

**EchoClient.java**

**import java.io.\*;**

**import java.net.\*;**

**public class EchoClient**

**{**

**public static void main(String[] args)**

**{**

**try**

**{**

**Socket s = new Socket("127.0.0.1", 9999);**

**BufferedReader r = new BufferedReader(new InputStreamReader(s.getInputStream()));**

**PrintWriter w = new PrintWriter(s.getOutputStream(), true);**

**BufferedReader con = new BufferedReader(new InputStreamReader(System.in));**

**String line;**

**do**

**{**

**line = r.readLine();**

**if ( line != null )**

**System.out.println(line);**

**line = con.readLine();**

**w.println(line);**

**}**

**while ( !line.trim().equals("bye") );**

**}**

**catch (Exception err)**

**{**

**System.err.println(err);**

**}**

**}**

**}**