**TCP SOCKETS (Echo server & Client)**

CLIENT PROGRAM:

import java.io.\*;

import java.net.\*;

public class tcpclient

{

public final static int DEFAULT\_PORT=10001;

public static void main(String arg[])throws Exception

{

String str;

System.out.println("enterthe string to echo");

BufferedReader Stream=new BufferedReader(new InputStreamReader(System.in));

String hostname="127.0.0.1";

try

{

str=Stream.readLine();

System.out.println("connecting to host " +hostname);

Socket s= new Socket(hostname,DEFAULT\_PORT);

PrintStream out= new PrintStream(s.getOutputStream());

BufferedReader in=new BufferedReader(new InputStreamReader(s.getInputStream()));

out.println(str);

String line=in.readLine();

while(line!=null)

{

System.out.println("received from server " +line);

line=in.readLine();

}

s.close();

}

catch(SocketException e)

{

System.out.println("socketerror "+e);

}

catch(UnknownHostException e)

{

System.err.println("invalid host");

}

catch(IOException e)

{

System.err.println("ioerror" +e);

}}}

SERVER PROGRAM:

import java.io.\*;

import java.net.\*;

import java.util.Date.\*;

class tcpserver

{

public final static int DEFAULT\_PORT=10001;

public static void main(String []args)throws Exception

{

int port=DEFAULT\_PORT;

try

{

ServerSocket server=new ServerSocket(port);

Socket connection=null;

while(true)

{

try

{

connection=server.accept();

System.out.println("accept connection from "+connection.getPort());

OutputStreamWriter out=new OutputStreamWriter(connection.getOutputStream());

BufferedReader in= new BufferedReader(new InputStreamReader(connection.getInputStream()));

String line=in.readLine();

while(line==null)

line=in.readLine();

System.out.println(line + "was echoed");

out.write(line);

out.flush();

connection.close();

}

catch(IOException e)

{}

finally

{

try

{

if(connection!=null)

connection.close();

}

catch(IOException e)

{

}}}}

catch(IOException e)

{

System.err.println(e);

}}}

OUTPUT:

