**Server Program**

import java.net.\*;

import java.io.\*;

public class TCPServer {

public static void main (String args[])

{

try{

int serverPort = 6880;

ServerSocket listenSocket = new ServerSocket(serverPort);

System.out.println("server start listening... ... ...");

while(true) {

Socket clientSocket = listenSocket.accept();

Connection c = new Connection(clientSocket);

}

}

catch(IOException e) {

System.out.println("Listen :"+e.getMessage());}

}

}

class Connection extends Thread {

DataInputStream input;

DataOutputStream output;

Socket clientSocket;

public Connection (Socket aClientSocket) {

try {

clientSocket = aClientSocket;

input = new DataInputStream( clientSocket.getInputStream());

output =new DataOutputStream( clientSocket.getOutputStream());

this.start();

}

catch(IOException e) {

System.out.println("Connection:"+e.getMessage());

}

}

@Override

public void run() {

try { // an echo server

// String data = input.readUTF();

FileWriter out = new FileWriter("test.txt");

BufferedWriter bufWriter = new BufferedWriter(out);

//Step 1 read length

int nb = input.readInt();

System.out.println("Read Length"+ nb);

byte[] digit = new byte[nb];

//Step 2 read byte

System.out.println("Writing.......");

for(int i = 0; i < nb; i++)

digit[i] = input.readByte();

String st = new String(digit);

bufWriter.append(st);

bufWriter.close();

System.out.println ("receive from : " +

clientSocket.getInetAddress() + ":" +

clientSocket.getPort() + " message - " + st);

//Step 1 send length

output.writeInt(st.length());

//Step 2 send length

output.writeBytes(st); // UTF is a string encoding

// output.writeUTF(data);

}

catch(EOFException e) {

System.out.println("EOF:"+e.getMessage()); }

catch(IOException e) {

System.out.println("IO:"+e.getMessage());}

finally {

try {

clientSocket.close();

}

catch (IOException e){/\*close failed\*/}

}

}

}

**Client Program**

import java.net.\*;

import java.io.\*;

public class TCPClient {

public static void main (String args[])

{// arguments supply message and hostname of destination

Socket s = null;

try{

int serverPort = 6880;

String ip = "localhost";

String data = "Hello, How are you?";

s = new Socket(ip, serverPort);

DataInputStream input = new DataInputStream( s.getInputStream());

DataOutputStream output = new DataOutputStream( s.getOutputStream());

//Step 1 send length

System.out.println("Length"+ data.length());

output.writeInt(data.length());

//Step 2 send length

System.out.println("Writing.......");

output.writeBytes(data); // UTF is a string encoding

//Step 1 read length

int nb = input.readInt();

byte[] digit = new byte[nb];

//Step 2 read byte

for(int i = 0; i < nb; i++)

digit[i] = input.readByte();

String st = new String(digit);

System.out.println("Received: "+ st);

}

catch (UnknownHostException e){

System.out.println("Sock:"+e.getMessage());}

catch (EOFException e){

System.out.println("EOF:"+e.getMessage()); }

catch (IOException e){

System.out.println("IO:"+e.getMessage());}

finally {

if(s!=null)

try {s.close();

}

catch (IOException e) {/\*close failed\*/}

}

}

}

**Output:**

**Server**

run:

server start listening... ... ...

Read Length19

Writing.......

receive from : /127.0.0.1:64337 message - Hello, How are you?

**Client**

run:

Length19

Writing.......

Received: Hello, How are you?

BUILD SUCCESSFUL (total time: 0 seconds)