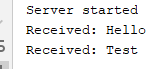
**Server screenshot**:

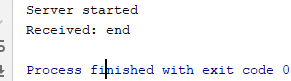
At beginning.



Received message.



Stop server



**Client screenshot**:

At beginning.



Enter “Hello”, and then receive to “Hello - Don’t eat yellow snow”



Enter “Test”, and then encode to “Test - Don’t eat yellow snow”



Enter “end”, and then close client



**Source code:**

**import** java.net.DatagramPacket;  
**import** java.net.DatagramSocket;  
**import** java.net.InetAddress;

**public class** ServerClass {  
 **private** DatagramSocket **socket**;  
 **void** ServerStart() **throws** Exception{  
 **socket** = **new** DatagramSocket(5432);  
 DatagramPacket packet ;  
 **int** port ;  
 **byte**[] buf = **new byte**[256];  
 System.***out***.println(**"Server started"**);  
 **while** (**true**) {  
 packet = **new** DatagramPacket(buf, buf.**length**);  
 **socket**.receive(packet);  
 InetAddress address = packet.getAddress();  
 port = packet.getPort();  
 packet = **new** DatagramPacket(buf, buf.**length**, address, port);  
 String received = **new** String(packet.getData(), packet.getOffset(), packet.getLength());

System.***out***.println(**"Received: "** + received);  
 **if** (received.contains(**"end"**)) {  
 **break**;  
 }  
 String returnMsg = received + **" - Don’t eat yellow snow"**;  
 returnMsg = returnMsg.replaceAll(**"\0"**, **""**);  
 buf = **new byte**[256];  
 buf = returnMsg.getBytes();  
 packet = **new** DatagramPacket(buf, buf.**length**, address, 5433);  
 **socket**.send(packet);  
 }  
 **socket**.close();  
 }  
}

**Client source code:**

**import** java.io.BufferedReader;  
**import** java.io.InputStreamReader;  
**import** java.net.\*;  
  
**public class** ClientClass {  
 **private** DatagramSocket **socket**;  
 **private** InetAddress **address**;  
 **private byte**[] **buf**;  
 **public void** ClientStart() **throws** Exception {  
 **socket** = **new** DatagramSocket(5433);  
 **address** = InetAddress.*getByName*(**"localhost"**);  
 String msgsent=**""**;  
 String received =**""**;  
 BufferedReader inFromUser = **new** BufferedReader(**new** InputStreamReader(System.***in***));  
 DatagramPacket packet;  
 DatagramPacket packet\_rec;  
 String fillstr;  
 **char**[] values;  
  
 **while**(**true**){  
 System.***out***.print(**"Enter a sentence: "**);  
 msgsent = inFromUser.readLine();  
 values=**new char**[256 - msgsent.length()];  
 fillstr = **new** String(values);  
 msgsent += fillstr;  
 **buf** = msgsent.getBytes();  
 packet = **new** DatagramPacket(**buf**, **buf**.**length**, **address**, 5432);  
 **socket**.send(packet);  
 **if** (msgsent.contains(**"end"**)) {  
 **break**;  
 }  
 **buf** = **new byte**[256];  
 packet\_rec = **new** DatagramPacket(**buf**, **buf**.**length**, **address**, 5432);  
 **socket**.receive(packet\_rec);  
 received = **new** String( packet\_rec.getData(), packet\_rec.getOffset(), packet\_rec.getLength());  
 System.***out***.println(**"Received: "** + received);  
 }  
 inFromUser.close();  
 **socket**.close();  
 }  
}