TCPServer.java

Now let's take a look at the server program.

```java
import java.io.*;
import java.net.*;
class TCPServer {
    public static void main(String argv[]) throws Except
        {
            String clientSentence;
            String capitalizedSentence;
            ServerSocket welcomeSocket = new ServerSocket
                (6789);
            while(true) {
                Socket connectionSocket = welcomeSocket.
                    accept();
                BufferedReader inFromClient =
                    new BufferedReader(new InputStreamReader
                        connectionSocket.getInputStream()));
                DataOutputStream outToClient =
                    new DataOutputStream(
                        connectionSocket.getOutputStream());
                clientSentence = inFromClient.readLine();
                capitalizedSentence =
                        clientSentence.toUpperCase() + '\n';
                outToClient.writeBytes(capitalizedSentence);
            }
        }
}
```

TCPClient.java

Here is the code for the client side of the application:

```java
import java.io.*;
import java.net.*;
class TCPClient {
    public static void main(String argv[]) throws Exception
    {
        String sentence;
        String modifiedSentence;
        BufferedReader inFromUser = new BufferedReader(
                new InputStreamReader(System.in));
        Socket clientSocket = new Socket("hostname", 6789);
        DataOutputStream outToServer = new DataOutputStream(
                clientSocket.getOutputStream());
        BufferedReader inFromServer =
            new BufferedReader(new InputStreamReader(
                clientSocket.getInputStream()));
        sentence = inFromUser.readLine();
        outToServer.writeBytes(sentence + '\n');
        modifiedSentence = inFromServer.readLine();
        System.out.println("FROM SERVER: " +
                        modifiedSentence);
        clientSocket.close();

    }
}
```

UDPServer.java

Let's now take a look at the server side of the application:

```java
import java.io.*;
import java.net.*;
class UDPServer {
   public static void main(String args[]) throws Exception
      {
      DatagramSocket serverSocket = new
                           DatagramSocket(9876);
      byte[] receiveData = new byte[1024];
      byte[] sendData = new byte[1024];
      while(true)
         {
         DatagramPacket receivePacket =
              new DatagramPacket(receiveData,
                     receiveData.length);
         serverSocket.receive(receivePacket);
         String sentence = new String(
                  receivePacket.getData());

         InetAddress IPAddress =
                     receivePacket.getAddress();
         int port = receivePacket.getPort();
         String capitalizedSentence =
                     sentence.toUpperCase();
         sendData = capitalizedSentence.getBytes();
         DatagramPacket sendPacket =
         new DatagramPacket(sendData,
              sendData.length, IPAddress, port);
         serverSocket.send(sendPacket);
      }
   }
}
```

UDPClient.java

Here is the code for the client side of the application:

```java
import java.io.*;
import java.net.*;
class UDPClient {
    public static void main(String args[]) throws Exception
    {
        BufferedReader inFromUser =
            new BufferedReader(new InputStreamReader
                        (System.in));
        DatagramSocket clientSocket = new DatagramSocket();
        InetAddress IPAddress =
                        InetAddress.getByName("hostname");
        byte[] sendData = new byte[1024];
        byte[] receiveData = new byte[1024];
        String sentence = inFromUser.readLine();
        sendData = sentence.getBytes();
        DatagramPacket sendPacket =
            new DatagramPacket(sendData, sendData.length,
                        IPAddress, 9876);
        clientSocket.send(sendPacket);
        DatagramPacket receivePacket =
            new DatagramPacket(receiveData,
                        receiveData.length);
        clientSocket.receive(receivePacket);
        String modifiedSentence =
            new String(receivePacket.getData());
        System.out.println("FROM SERVER:" +
                        modifiedSentence);
        clientSocket.close();
    }
}
```