



1. Write code for Client and save in UDPClient.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(); // Socket()
        InetAddress IPAddress = InetAddress.getByName("localhost");
        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); // SendTo()
    }
}
  
```

```

    DatagramPacket receivePacket = new DatagramPacket(receiveData,
receiveData.length);
    clientSocket.receive(receivePacket); // ReceiveFrom()
    String modifiedSentence = new String(receivePacket.getData());
    System.out.println("FROM SERVER:" + modifiedSentence);
    clientSocket.close();
}

```

1. } Write code for Server Side and save in UDPServer.java

```

import java.io.*;
import java.net.*;

class UDPServer
{
    public static void main(String args[]) throws Exception
    {
        DatagramSocket serverSocket = new DatagramSocket(9876); // Socket() and Bind()
        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());
            System.out.println("RECEIVED: " + sentence);
            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); // SendTo()
        }
    }
}

```

1. } Make a project folder in C:\ e.g. socket
2. Open Command Prompt
3. Create directory as C:\socket>
4. Type C:\socket>javac UDPServer.java and Enter
5. Type C:\socket>javac UDPClient.java and Enter
6. Again open other Command Prompt for Server
7. Type C:\socket>java UDPServer and Enter
8. In other command prompt for Client
9. Type C:\socket>java UDPClient and Enter

NOTE : Run UDPServer.java before UDPClient.java

10. Type hi and Enter

OUTPUT

1. UDP Socket Programming

```
Command Prompt - java UDPServer
```

```
C:\socket>javac UDPClient.java
C:\socket>javac UDPServer.java
C:\socket>java UDPServer
RECEIVED: hi
```

```
Command Prompt
```

```
C:\socket>java UDPClient
hi
FROM SERVER:HI
```

```
C:\socket>
```