

UDP Server

```
import java.io.*;
import java.net.*;
public class UDPServer {
    public static void main(String[] args) {
        DatagramSocket serverSocket = null;
        try {
            // Create a UDP socket
            serverSocket = new DatagramSocket(9876);
            byte[] receiveData = new byte[1024];
            System.out.println("Server is waiting for data...");
            while (true) {
                DatagramPacket receivePacket = new DatagramPacket(receiveData,
                    receiveData.length);
                serverSocket.receive(receivePacket);
                String clientMessage = new String(receivePacket.getData(), 0,
                    receivePacket.getLength());
                InetAddress clientAddress = receivePacket.getAddress();
                int clientPort = receivePacket.getPort();
                System.out.println("Received from client at " + clientAddress + ":" + clientPort + ": "
                    + clientMessage);
                // Process the received data (you can add your logic here)
                // Send a reply back to the client
                String serverReply = "Hello from the server!";
                byte[] sendData = serverReply.getBytes();
                DatagramPacket sendPacket = new DatagramPacket(sendData, sendData.length,
                    clientAddress, clientPort);
                serverSocket.send(sendPacket);
            }
        } catch (IOException e) {
            e.printStackTrace();
        } finally {
            if (serverSocket != null && !serverSocket.isClosed()) {
                serverSocket.close();
            }
        }
    }
}
```

UDP Client

```
import java.io.*;
import java.net.*;
public class UDPClient {
    public static void main(String[] args)
    {
        DatagramSocket clientSocket = null;
        try {
            // Create a UDP socket
            clientSocket = new DatagramSocket();
            InetAddress serverAddress = InetAddress.getByName("127.0.0.1");
            int serverPort = 9876;
            BufferedReader userInput = new BufferedReader(new
            InputStreamReader(System.in));
            while (true) {
                System.out.print("Enter a message to send to the server (or 'exit' to quit): ");
                String message = userInput.readLine();
                if (message.equals("exit")) {
                    break;
                }
                byte[] sendData = message.getBytes();
                DatagramPacket sendPacket = new DatagramPacket(sendData, sendData.length,
                serverAddress, serverPort);
                clientSocket.send(sendPacket);
                byte[] receiveData = new byte[1024];
                DatagramPacket receivePacket = new DatagramPacket(receiveData,
                receiveData.length);
                clientSocket.receive(receivePacket);
                String serverReply = new String(receivePacket.getData(), 0,
                receivePacket.getLength());
                System.out.println("Received from server: " + serverReply);
            }
        } catch (IOException e) {
            e.printStackTrace();
        } finally {
            if (clientSocket != null && !clientSocket.isClosed()) {
                clientSocket.close();
            }
        }
    }
}
```