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UDP Client Implementation:

Server Program:

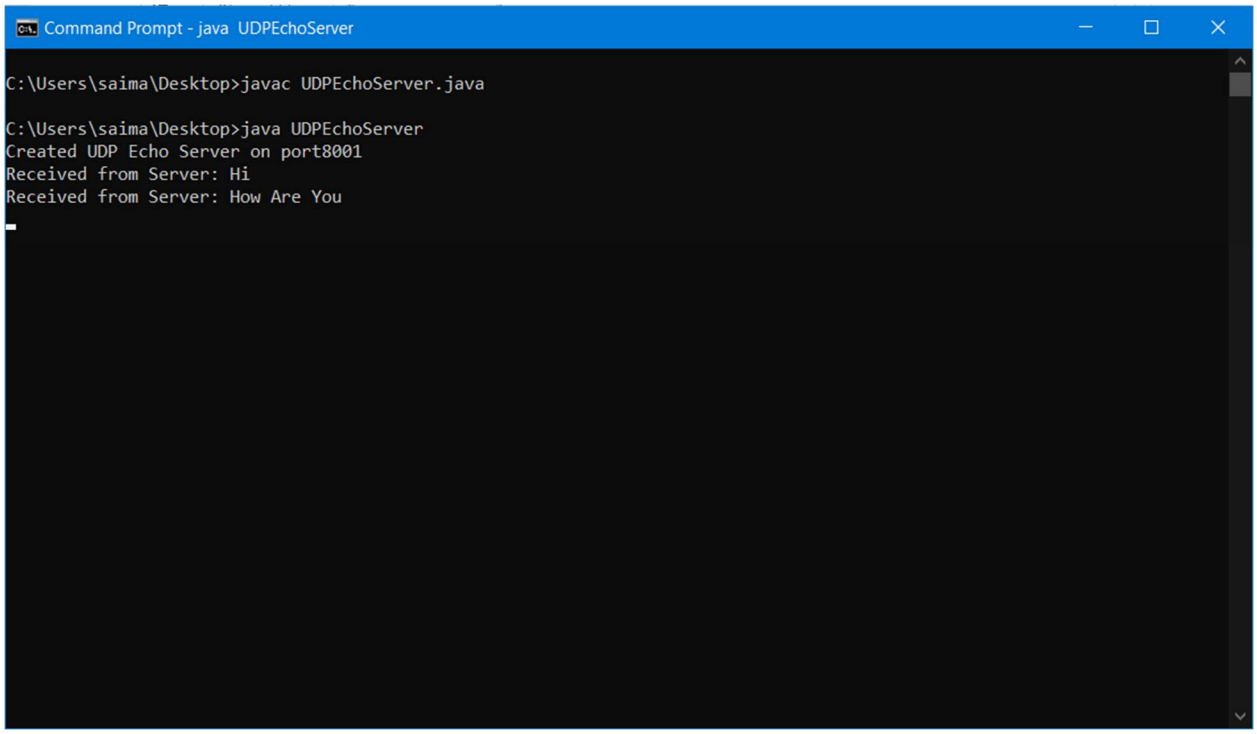
```
import java.net.*;
import java.io.*;
public class UDPEchoServer
{
	public static void main(String args[])
	{
		int port = 8001;
		DatagramSocket serverDatagramSocket = null;
		try
		{
			serverDatagramSocket = new DatagramSocket(port);
			System.out.println("Created UDP Echo Server on port"+port);
		}
		catch(IOException e)
		{
			System.out.println(e);
			System.exit(1);
		}
		try
		{
			byte buffer[] = new byte[1024];
			DatagramPacket datagramPacket = new DatagramPacket(buffer, buffer.length);
			String input;
			while(true)
				{
					serverDatagramSocket.receive(datagramPacket);
					input = new String(datagramPacket.getData(),
0,datagramPacket.getLength());
					System.out.println("Received from Server: "+input);
					serverDatagramSocket.send(datagramPacket);
				}
		}
		catch(IOException e)
		{
			System.out.println(e);
		}
	}
}
```

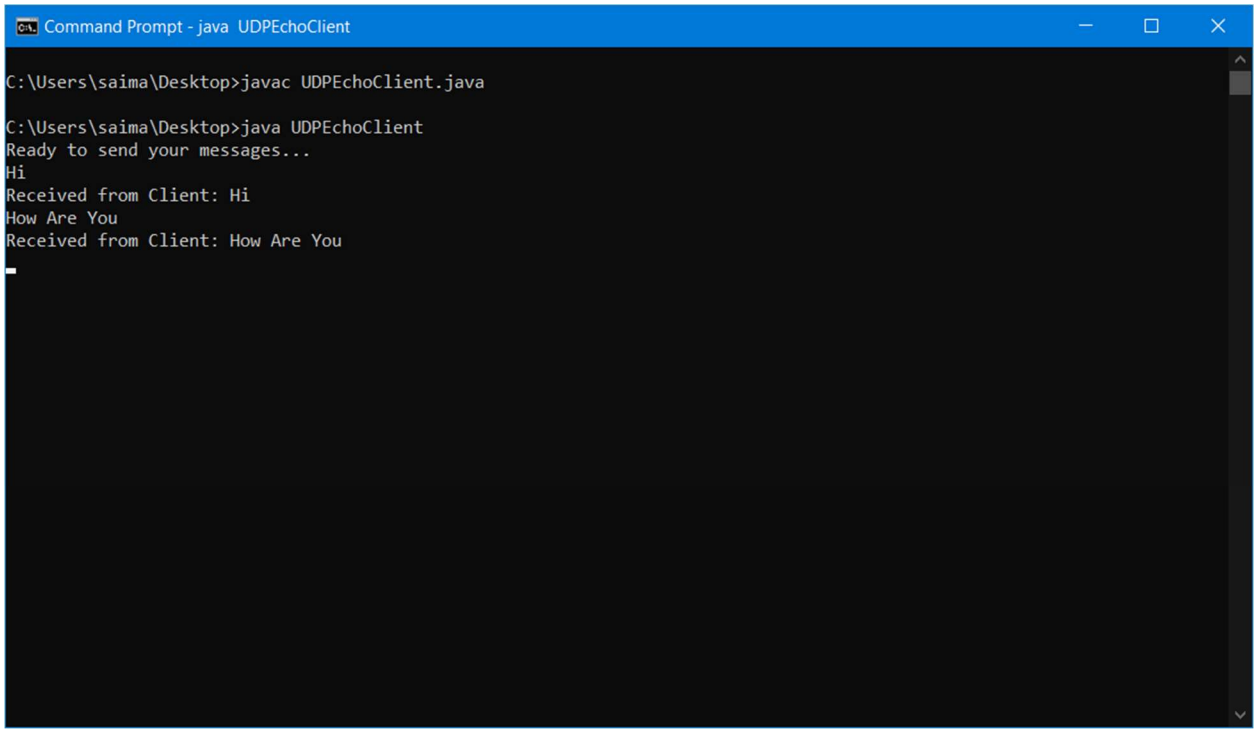
Client Program:

```
import java.net.*;
import java.io.*;
public class UDPEchoClient
{
	public static class UDPEchoReader extends Thread
	{
		public UDPEchoReader(DatagramSocket socket)
		{
			datagramSocket = socket;
			active = true;
		}
		public void run()
		{
			byte[] buffer = new byte[1024];
			DatagramPacket incoming = new DatagramPacket(buffer,buffer.length);
			String receivedString;
			while(active)
				{
					try
					{
						datagramSocket.receive(incoming);
						receivedString = new String(incoming.getData(),0,
incoming.getLength());
						System.out.println("Received from Client:
"+receivedString);
					}
					catch(IOException e)
					{
						System.out.println(e);
						active = false;
					}
				}
		}
		public boolean active;
		public DatagramSocket datagramSocket;
	}
	public static void main(String[] args)
	{
		InetAddress address = null;
		int port = 8001;
		DatagramSocket datagramSocket = null;
		BufferedReader keyboardReader = null;
		try
		{
			address = InetAddress.getByName("127.0.0.1");
			datagramSocket = new DatagramSocket();
			keyboardReader = new BufferedReader(new InputStreamReader(System.in));
```

```
                }
                catch (IOException e)
                {
                        System.out.println(e);
                        System.exit(1);
                }
                UDPEchoReader reader = new UDPEchoReader(datagramSocket);
                reader.setDaemon(true);
                reader.start();
                System.out.println("Ready to send your messages...");
                try
                {
                        String input;
                        while (true)
                                {
                                        input = keyboardReader.readLine();
                                        DatagramPacket datagramPacket = new
DatagramPacket(input.getBytes(), input.length(), address, port);
                                        datagramSocket.send(datagramPacket);
                                }
                }
                catch(IOException e)
                {
                        System.out.println(e);
                }
        }
}
```

OUTPUT:


Command Prompt - java UDPEchoServer
C:\Users\saima\Desktop>javac UDPEchoServer.java
C:\Users\saima\Desktop>java UDPEchoServer
Created UDP Echo Server on port8001
Received from Server: Hi
Received from Server: How Are You


Command Prompt - java UDPEchoClient
C:\Users\saima\Desktop>javac UDPEchoClient.java
C:\Users\saima\Desktop>java UDPEchoClient
Ready to send your messages...
Hi
Received from Client: Hi
How Are You
Received from Client: How Are You