

21BCE1955
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Register Number	21BCE1955	Subject Code	BCSE 308P
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Programme	BTECH CSE	Slot	L1+L2
Course		Semester	IV

EXP-3

AIM:

To write the socket in order to implement the echo and convert lower case given by client to upper case by server.

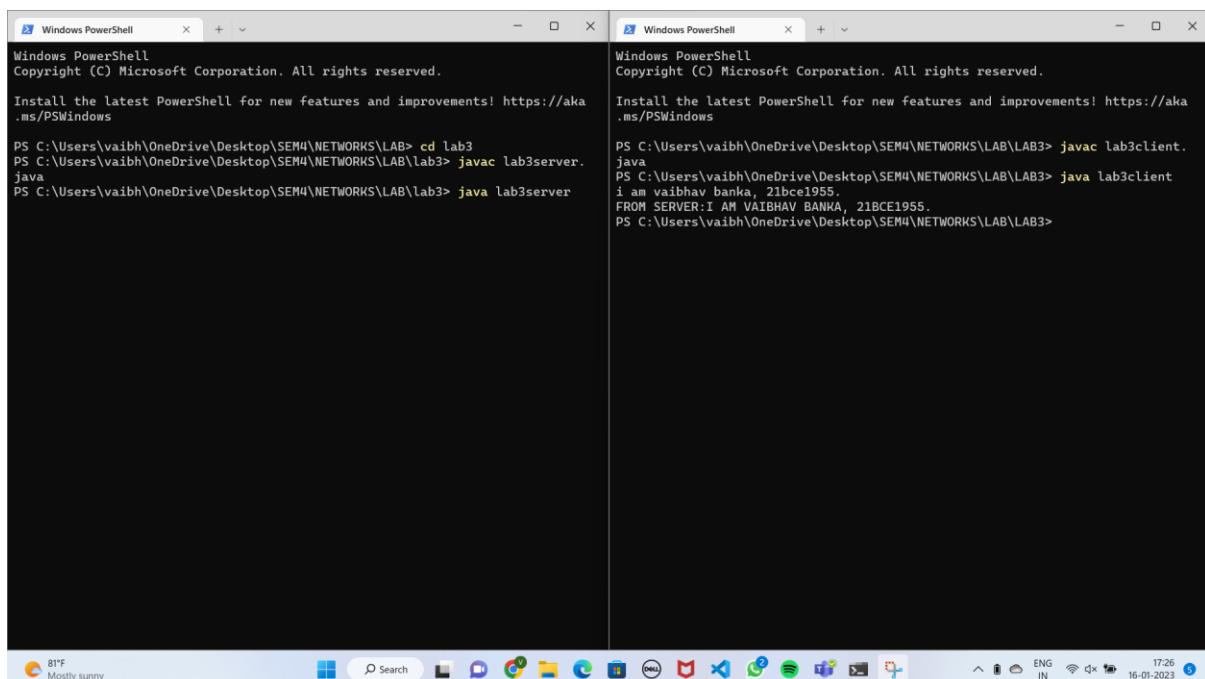
CLIENT:

```
import java.io.*;
import java.net.*;
class lab3client {
    public static void main(String args[]) throws Exception {
        BufferedReader inFromUser = new BufferedReader(new
InputStreamReader(System.in));
        DatagramSocket clientSocket = new DatagramSocket();
        InetAddress IPAddress = InetAddress.getLocalHost();
        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();
    }
}
```

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SERVER:

```
import java.io.*;
import java.net.*;
class lab3server {
    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);
        }
    }
}
```



The image shows two side-by-side Windows PowerShell terminal windows. The left window shows the compilation and execution of a Java server program. The right window shows the compilation and execution of a Java client program, which sends a message to the server.

```
Windows PowerShell
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PS C:\Users\vaibh\OneDrive\Desktop\SEM4\NETWORKS\LAB> cd lab3
PS C:\Users\vaibh\OneDrive\Desktop\SEM4\NETWORKS\LAB\lab3> javac lab3server.
java
PS C:\Users\vaibh\OneDrive\Desktop\SEM4\NETWORKS\LAB\lab3> java lab3server
```

```
Windows PowerShell
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PS C:\Users\vaibh\OneDrive\Desktop\SEM4\NETWORKS\LAB\LAB3> javac lab3client.
java
PS C:\Users\vaibh\OneDrive\Desktop\SEM4\NETWORKS\LAB\LAB3> java lab3client
i am vaibhav banka, 21bce1955.
FROM SERVER:I AM VAIBHAV BANKA, 21BCE1955.
PS C:\Users\vaibh\OneDrive\Desktop\SEM4\NETWORKS\LAB\LAB3>
```