

## **Program – 15:**

**Aim:** Using UDP sockets, write a client-server program to make client sending the file name and the server to send back the contents of the requested file if present.

### **Program:**

```
package pgm8;

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("localhost");

        byte[] sendData = new byte[1024];
        byte[] receiveData = new byte[1024];

        System.out.println("Enter the string to be converted to Uppercase:");
        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();
    }
}

package pgm8;

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) {
    System.out.println("Server is Up");

    DatagramPacket receivePacket =
        new DatagramPacket(receiveData, receiveData.length);

    serverSocket.receive(receivePacket);

    String sentence = new String(receivePacket.getData());
    System.out.println("RECEIVED: " + sentence.trim());

    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);
}
}
}

```

### Output:

```

----- SERVER SIDE -----
Server is Up
RECEIVED: hello world
Server is Up

----- CLIENT SIDE -----
Enter the string to be converted to Uppercase:
hello world
FROM SERVER: HELLO WORLD

```