**PROGRAM 10 (Server)**

import java.io.BufferedReader;

import java.io.IOException;

import java.io.InputStreamReader;

import java.net.DatagramPacket;

import java.net.DatagramSocket;

import java.net.InetAddress;

import java.net.SocketException;

public class P10a\_DatagramSERVER {

public static void main(String[] args) throws SocketException, IOException

{

DatagramSocket serverSocket = new DatagramSocket(9876);

boolean bye=false;

while(true)

{

byte[] receivebuffer = new byte[1024];

byte[] sendbuffer = new byte[1024];

DatagramPacket recvdpkt = new DatagramPacket(receivebuffer, receivebuffer.length);

serverSocket.receive(recvdpkt);

InetAddress IP = recvdpkt.getAddress();

int portno = recvdpkt.getPort();

String clientdata = new String(recvdpkt.getData());

System.out.println("Message received from the client : "+ clientdata);

System.out.println("Enter the message to sent to client: ");

BufferedReader serverRead = new BufferedReader(new InputStreamReader(System.in));

String serverdata = serverRead.readLine();

sendbuffer = serverdata.getBytes();

DatagramPacket sendPacket = new DatagramPacket(sendbuffer, sendbuffer.length, IP,portno);

serverSocket.send(sendPacket);

if(serverdata.equalsIgnoreCase("bye"))

{

System.out.println("connection ended by server");

break;

}

}

serverSocket.close();

}

}