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//////////////////UDP CLIENT.java///////////////////

```
import java.net.DatagramPacket;

import java.net.DatagramSocket;

import java.net.InetAddress;

import java.util.Scanner;



public class UDP_Client{

    public static void main(String args[]) throws Exception{

        DatagramSocket dsocket = new DatagramSocket();

        Scanner input = new Scanner(System.in);

        String mensagemSair = "Cliente Saindo...";

        byte[] msgVai = new byte [1024];

        byte[] endD = new byte [1024];

        byte[] portArg = new byte [1024];

        String mensagemVai = null;

        String endDestino = null;

        InetAddress endDst = null;

        String endString = null;

        String portArgInt = null;
```

```
if(args.length == 0){


        mensagemVai = "ping";

        msgVai = mensagemVai.getBytes();


} else if(args.length >=1){

        msgVai = args[0].getBytes();


}



if(args.length <=1){


        endDestino = "localhost";

        endDst = InetAddress.getByName(endDestino);


} else if(args.length >1){

        endD = args[1].getBytes();

        endString = new String(endD);

        endDst = InetAddress.getByName(endString);

}



int portaDst = 0;
```

```
        if(args.length <=2){

            portaDst = 6789;



        }else if(args.length >2){
            portArg = args[2].getBytes();
            portArgInt = new String(portArg);
            portaDst = Integer.parseInt(portArgInt);


        }
        try{
        DatagramPacket pctVai = new DatagramPacket(msgVai,
msgVai.length, endDst, portaDst);
        dsocket.send(pctVai);


        System.out.println("Enviei solicitacao ao Servidor\n");


        byte[] msgVem = new byte[1024];
        DatagramPacket pctVem = new DatagramPacket(msgVem,
msgVem.length);
        dsocket.receive(pctVem);
        System.out.println("Recebi resposta do Servidor:\n");
        System.out.println("Chegou: " + new
String(pctVem.getData()));


        Thread.sleep(5000);
        dsocket.close();

        }       catch(Exception e){

        }
    }

}
```

///////////////////UDP_Server.java ////////////////////

```
import java.io.IOException;
import java.net.SocketException;
import java.util.InputMismatchException;
import java.net.DatagramPacket;
import java.net.DatagramSocket;
import java.util.Scanner;
import java.util.ArrayList;



public class  UDP_Server{

    public static void main(String args[]) throws Exception {



        DatagramSocket dsocket = null;
        Scanner input = new Scanner(System.in);
        int porta =0;
        String portServerString = "";
        byte[] portServerArg = new byte [1024];

        if(args.length == 0){
              porta = 6789;

        } else if(args.length >=1){
              portServerArg = args[0].getBytes();
              portServerString = new String(portServerArg);
              porta = Integer.parseInt(portServerString);
        }

        try {


              dsocket = new DatagramSocket(porta);
        System.out.printf("Aguardando Cliente na porta
        %d...\n",dsocket.getLocalPort());
        byte[] msg = new byte[1024];
        ArrayList<UDPServerThread> threads = new ArrayList<>();

new Thread(new Runnable() {
  @Override
  public void run() {

    while (true) {
      int clientes = 0;
      try {
       for (UDPServerThread thread : threads) {
        if (thread.isAlive()) {
          clientes++;
         }
        }
        System.out.println("Conexões ativas: " + clientes);
        Thread.sleep(2000);
      } catch (InterruptedException e) {

      }
     }
    }
   }).start();



           while(true){
           DatagramPacket pctVeio = new DatagramPacket(msg,
msg.length);
           dsocket.receive(pctVeio);

           System.out.println("Recebi solicitacao do Cliente:"
+pctVeio.getAddress());

           UDPServerThread thread = new UDPServerThread(pctVeio);
    threads.add(thread);
```

```java
   thread.start();


        System.out.println("Enviei resposta ao Cliente\n");
        }
        }catch(Exception e){
        }
    }
    }
```

/////////////UDPServerThread.java//////////////

```java
import java.net.DatagramPacket;
import java.net.DatagramSocket;



class UDPServerThread extends Thread{

    private DatagramPacket pctVeio;



    public UDPServerThread(DatagramPacket pctVeio){
        this.pctVeio = pctVeio;
    }

    @Override
    public void run(){
        DatagramPacket pctVai = new DatagramPacket(pctVeio.getData(),pctVeio.getLength(),pctVeio.getAddress(),pctVeio.getPort());

        try{
            DatagramSocket dst = new DatagramSocket();
            dst.send(pctVai);
             Thread.sleep(6000);
            dst.close();
        }catch(Exception e){

        }
    }
}
```