

```
// Client server program using tcp where client sends 2 numbers and server respond sum of them
import java.util.*;
import java.net.*;
import java.io.*;
```

```
public class SumTcpClient {
    public static void main(String[] args) throws Exception {
        Scanner sc = new Scanner(System.in);

        // include Socket class
        Socket s = new Socket("localhost",3333);

        //make object of datainput Stream and dataoutputstream
        DataInputStream dis = new DataInputStream(s.getInputStream()); // read primitive
data        DataOutputStream dos = new DataOutputStream(s.getOutputStream()); // write " "

        String str = "";
        String str2 = "";

        while(!str.equals("stop")) {
            str = sc.nextLine();

            dos.writeUTF(str);
            dos.flush();

            str2 = dis.readUTF();
            System.out.println("Server says=" + str2);
        }
        dos.close();
        s.close();
    }
}
```

```
//Sum TCP Server
```

```
import java.util.*;
import java.net.*;
import java.io.*;
```

```
public class SumTcpServer {
    public static void main(String[] args) throws Exception {
        ServerSocket ss = new ServerSocket(3333);
        Socket s = new Socket();
        DataInputStream dis = new DataInputStream(s.getInputStream()); // read primitive
data        DataOutputStream dos = new DataOutputStream(s.getOutputStream()); // write " "

        Scanner sc = new Scanner(System.in);
        String str = "",str2 = "";
        while(!str.equals("stop")){
            str=dis.readUTF();
            System.out.println("Client says= " + str);
        }
    }
}
```

```

        str2 = sc.nextLine();
        dos.writeUTF(str2);
        dos.flush();
    }
    dis.close();
    s.close();
    ss.close();
}
}

```

```

//Tcp.client
import java.util.*;
import java.net.*;
import java.io.*;
public class TcpClient {
    public static void main(String args[])throws Exception{
        Socket s=new Socket("localhost",3333);
        DataInputStream din=new DataInputStream(s.getInputStream());
        DataOutputStream dout=new DataOutputStream(s.getOutputStream());
        BufferedReader br=new BufferedReader(new InputStreamReader(System.in));

        String str="",str2="";
        while(!str.equals("stop")){
            str=br.readLine();
            dout.writeUTF(str);
            dout.flush();
            str2=din.readUTF();
            System.out.println("Server says: "+str2);
        }

        dout.close();
        s.close();
    }
}

```

```

//TCP Server
import java.util.*;
import java.net.*;
import java.io.*;
public class TcpServer {
    public static void main(String args[])throws Exception{
        ServerSocket ss=new ServerSocket(3333);
        Socket s=ss.accept();
        DataInputStream din=new DataInputStream(s.getInputStream());
        DataOutputStream dout=new DataOutputStream(s.getOutputStream());
        BufferedReader br=new BufferedReader(new
InputStreamReader(System.in));

        String str="",str2="";

```

```

        while(!str.equals("stop")){
            str=din.readUTF();
            System.out.println("client says: "+str);
            str2=br.readLine();
            dout.writeUTF(str2);
            dout.flush();
        }
        din.close();
        s.close();
        ss.close();
    }
}

```

```

//UDP Client
import java.util.*;
import java.net.*;
import java.io.*;
public class UdpClient {
    public static void main(String[] args)throws Exception{
        DatagramSocket ds=new DatagramSocket();
        String str = "Hi server!";
        InetAddress ip =InetAddress.getByName("127.0.0.1");
        DatagramPacket dp = new
DatagramPacket(str.getBytes(),str.length(),ip,3000);
        ds.send(dp);
        ds.close();
    }
}

```

```

//UDP Server
import java.util.*;
import java.net.*;
import java.io.*;
public class UdpServer {
    public static void main(String[] args)throws Exception {
        DatagramSocket ds =new DatagramSocket(3000);
        byte[] buf = new byte[1024];
        DatagramPacket dp =new DatagramPacket(buf, 1024);
        ds.receive(dp);
        String str = new String(dp.getData(), 0,dp.getLength());
        System.out.println(str);
        ds.close();
    }
}

```

