

CLIENT PROGRAM

```
import java.io.BufferedReader;
import java.io.DataInputStream;
import java.io.DataOutputStream;
import java.io.InputStreamReader;
import java.net.Socket;
import java.util.Scanner;

public class TCP_Client{

    public static void main(String[] args) {

        Scanner sc=new Scanner(System.in);
        try{
            Socket s=new Socket("localhost",100);
            DataInputStream din=new DataInputStream(s.getInputStream());
            DataOutputStream dout=new
DataOutputStream(s.getOutputStream());
            BufferedReader br=new BufferedReader(new
InputStreamReader(System.in));

            String packet1="",packet2="";
            long time1,time2,elapsedTime;
            System.out.print("Enter: ");
            packet1=sc.nextLine();
            dout.writeUTF(packet1);
            time1=java.time.LocalDateTime.now().getNano();

            while(!packet1.equals("stop"))
            {
                packet2=din.readUTF();
                time2=java.time.LocalDateTime.now().getNano();
                elapsedTime=(time2-time1);
                System.out.println("\nThe Time latency is : "+elapsedTime+"
Nano Seconds\n");
                System.out.println("Server Replies: "+packet2);
                System.out.print("Enter: ");
                packet1=br.readLine();
                time1=java.time.LocalDateTime.now().getNano();
                dout.writeUTF(packet1);
                dout.flush();
            }
        }
    }
}
```

```

    }

    }
catch(Exception e){System.out.println(e.printStackTrace());}
}

}

```

SERVER

```

import java.net.*;
import java.io.*;

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

    ServerSocket ss=new ServerSocket(100);
    Socket s=ss.accept();
    DataInputStream din=new DataInputStream(s.getInputStream());
    DataOutputStream dout=new
    DataOutputStream(s.getOutputStream());
    String str="";
    while(!str.equals("stop"))
    {
        str=din.readUTF();
        System.out.println("client says: "+str);
        dout.writeUTF(str);
        dout.flush();
    }
    din.close();
    s.close();
    ss.close();

}}

```

OUTPUT

Enter: hi

The Time latency is : 976200 Nano Seconds

Server Replies: hi

Enter: welcome

The Time latency is : 976900 Nano Seconds

Server Replies: welcome

Enter: