



Practical No. 3

Aim:- Create, debug and execute program based server/clients sockets and sending data from client to server.

Theory :- Datagram - TCP includes many complicated algorithm for dealing with connection oriented on crowded network as well as pessimistic expectation about packet loss.

This leads to inefficient way to transport data so datagram provides an alternative

Datagram Packet

It is a object that contains data and it is a data container

Datagram Socket

Datagram Socket is a mechanisms which is used to send and receive Datagram Packets

Program :-

Program:

Client Side

```
import java.net.*;
import java.io.*;
class Client{
public static void main(String args[])throws Exception{
Socket s=new Socket("localhost",1111);
DataInputStream din=new DataInputStream(s.getInputStream());
DataOutputStream dout=new
DataOutputStream(s.getOutputStream());
BufferedReader br=new BufferedReader(new
InputStreamReader(System.in));

String str="", str1="";
while(!str.equals("stop")){
str=br.readLine();
dout.writeUTF(str);
dout.flush();
str1=din.readUTF();
System.out.println("Server - "+ str1);
}

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

Server Side

```
import java.net.*;
import java.io.*;
class Server{
public static void main(String args[])throws Exception{
ServerSocket ss=new ServerSocket(1111);
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="", str1 = "";
while(!str.equals("stop")){
str=din.readUTF();
System.out.println("Client - "+str);
str1 =br.readLine();
dout.writeUTF(str1);
dout.flush();
}
din.close();
s.close();
ss.close();
}}|
```

Output:

Client:

```
C:\Windows\System32\cmd.exe - java Client
Microsoft Windows [Version 10.0.19042.985]
(c) Microsoft Corporation. All rights reserved.

F:\BHT-TK-001\VIth Sem\IT501E - Advanced Java\Assignments>javac Client.java

F:\BHT-TK-001\VIth Sem\IT501E - Advanced Java\Assignments>java Client
Hello!
Server - Good Evening
This is Raquel Murillo
Server - and I am Professor
I am glad that we don't have to regret any casualties
Server - I am glad too

Server - Just in case one day you get us an helicopter, so we can go to Brazil.
Thats's what you want? A Helicopter ?
Server - Intelligenace, to get me a yes or a no.
Then you should speak directly with the president
Server - in that case, the polite thing to do is to greet and introduce oursselves.
Hello, I'm Angel deputy Police Inspector.
Server - Forgive me for not giving you my name but you can call me Professor.
```

Server:

C:\Windows\System32\cmd.exe - java Server

Microsoft Windows [Version 10.0.19042.985]
(c) Microsoft Corporation. All rights reserved.

F:\BHT-TK-001\With Sem\IT501E - Advanced Java\Assignments>javac Server.java

F:\BHT-TK-001\With Sem\IT501E - Advanced Java\Assignments>java Server

Client - Hello!

Good Evening

Client - This is Raquel Murillo
and I am Professor

Client - I am glad that we don't have to regret any casualties
I am glad too

Client -

Just in case one day you get us an helicopter, so we can go to Brazil.

Client - That's what you want? A Helicopter ?

Intelligence, to get me a yes or a no.

Client - Then you should speak directly with the president
in that case, the polite thing to do is to greet and introduce ourselves.

Client - Hello, I'm Angel deputy Police Inspector.

Forgive me for not giving you my name but you can call me Professor.