COMPUTER NETWORK MODEL PRACTICAL

Register Number: 3911037 3 Name: HARIHARAN B P

Branch: CSE Sem: 5

Subject Code: SCSA2501 Subject Name: Computer Network Lab

Date: 28/10/2021 Batch-id: 4 (CN-4)

Duration: 2 hrs No. of pages:

Aim: To perform a java prog. for UDP client and UDP Server

Algorithm: (Server)

1) Create a new Datagram Socket and Packet
2) Create message to be sent
3) Convert into bytes & create a packet
4) Send ~~Packe~~ Packet
5) wait for ~~acter~~ acknowledgement from Client
6) Print data from Client.
7) Stop

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Program (Server)

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

public class udpServer {
    public ~~client~~ int
    public static int client = 789;
    public static int Server = 790;
    private static DatagramSocket ds;
    public static void main (String [] args) throws
                                        IOException
    {
        String s;
        InetAddress id = InetAddress.getLocalHost();
        BufferedReader dis = new BufferedReader(new
                        InputStreamReader(System.in));
        ds = new DatagramSocket (Server);
        byte b[] = new byte [1024];
        System.out.println("Server Side... Sending...");
        System.out.println("\n" + id);
        while (true)
```

```
{
        s=dis.readLine();
        if (s.equals("end")) {
            b=s.getBytes();
            DatagramPacket dp=new DatagramPacket
                                (b, s.length(), id,
                                client);

            ds.send(dp);
            break;
        }
        else {
            b=s.getBytes();
            DatagramPacket dp=new DatagramPacket
                                (b, s.length(),id,
                                client);

            ds.send(dp);
        } //if & else

    } //while
} //main
} // public class
```

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Algorithm (client)

① Create new Datagram Socket and Packet

② Get Packet

3) Print Content

4) Create new Packet

5) Send it to Server

6) Stop.

Program (client)

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

public class udpClient {
    publer static int client = 789;
    private static DatagramSocket ds;
    private static DatagramSocket datagramSocket;
    public static void main( String args[]) throws
                                    IOException {
        datagramSocket = new DatagramSocket(client);
        ds = datagramSocket();
```

```
byte b[] = new byte [1024];
System.out.println ("Client... Recieving...");
while (true) {
    DatagramPacket dp = new DatagramPacket
                        (b, b.length);
    ds.receive (dp);
    String s = new String (dp.getData(), 0, dp.
                           dp.getLength());
    if s.equals ("end"))
        System.out.println (s);
    else
        break;
} // while
} //main
} // public class.
```

O/P

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Output (Result):

bphar@ Server:

javac udpServer.java

java udpServer

Server Side.. Sending..

HBP/192.168.0.7

Client:

javac udpClient.java

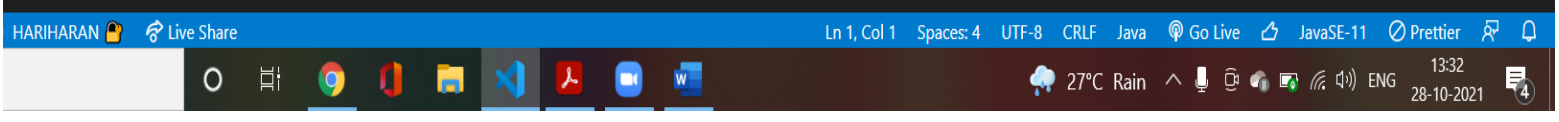
java udpClient

Client... Recieving...

```
bphar@HBP MINGW64 /d/AAdityAA/SIST/Sem 5/Computer Network Lab (master)
$ javac udpServer.java

bphar@HBP MINGW64 /d/AAdityAA/SIST/Sem 5/Computer Network Lab (master)
$ java udpServer
Server Side.. Sending..

HBP/192.168.0.7
```




```
bphar@HBP MINGW64 /d/AAdityAA/SIST/Sem 5/Computer Network Lab (master)
$ javac udpClient.java

bphar@HBP MINGW64 /d/AAdityAA/SIST/Sem 5/Computer Network Lab (master)
$ java udpClient
Client... Recieving...
```