Expt. No. 01

Title: *Write a program to demonstrate Datagram Socket for chat application using java.*

Rubrics	0 to 4
Delivery	
Understanding	
Readability	
Discipline	
Total	

Date:

Subject In-charge Sign:

……………………………..

Experiment No. 01

Aim: Write a program to demonstrate Datagram Socket for chat application using java.

Software: Jdk 1.8.0, Eclipse.

Pre-Lab Questions:
      1. What is Datagram Socket?
      2. What are the steps involved in using Socket?

Post-Lab Questions:
      1. Which constructor of Datagram Socket class is used to create a datagram socket and binds it with the given Port Number?
   2. What does the java.net. InetAddress class represent?

THEORY:
What is Datagram Socket Programming?
The server continuously receives datagram packets over a datagram socket. Each datagram packet received by the server indicates a client request for a quotation. When the server receives a datagram, it replies by sending a datagram packet that contains a one-line "quote of the moment" back to the client.

The client application in this example is fairly simple. It sends a single datagram packet to the server indicating that the client would like to receive a quote of the moment. The client then waits for the server to send a datagram packet in response.
Socket is an interface between an application process and transport layer. The application process can send/receive messages to/from another application process (local or remote) via a socket.

Socket Description
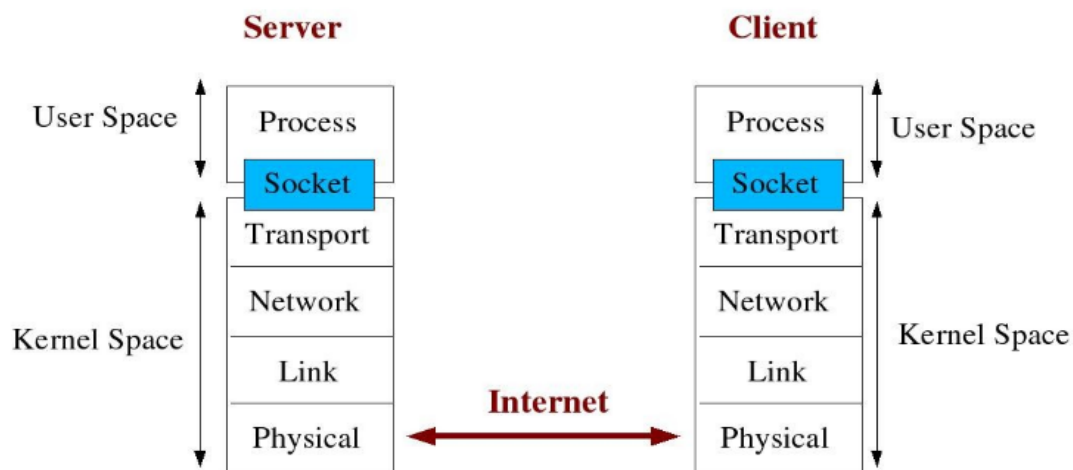
There are a few steps involved in using sockets:

- **Create the socket**
- **Identify the socket**
- **On the server, wait for an incoming connection**
- **On the client, connect to the server's socket**
- **Send and receive messages**
- **Close the socket**

ALGORITHM:

datagramsocket,datagrampacket,BufferedReader,InetAddress.
Start the main function
In the main function using while loop it perform the loop until str.equals is STOP
There important while loop function are
clientsocket = new DatagramSocket(cport);
dp = new DatagramPacket(buf, buf.length);
dis = new BufferedReader(new
InputStreamReader(System.in));
ia = InetAddress.getLocalHost(); f it is stop then break the while loop

PROGRAM:

```
// Source code java programming Datagram Chat Client
```

```
//Source code java programming Datagram Chat Server
```

OUTPUT:

C:\WINDOWS\system32\cmd.exe - java DatagramServer

```
C:\Documents and Settings>cd..

C:\>cd Program Fils
The system cannot find the path specified.

C:\>cd Program Files

C:\Program Files>cd java

C:\Program Files\Java>cd jdk1.7.0_17

C:\Program Files\Java\jdk1.7.0_17>cd bin

C:\Program Files\Java\jdk1.7.0_17\bin>javac DatagramServer.java

C:\Program Files\Java\jdk1.7.0_17\bin>java DatagramServer
Server is Running...
Client: stop
hhii
Client: hiii
hii dipti
Client: hii dipti
```


C:\WINDOWS\system32\cmd.exe - java DatagramClient

```
C:\Program Files\Java\jdk1.7.0_17\bin>javac DatagramClient.java
DatagramClient.java:15: error: cannot find symbol
dis = new BufferedReader(newInputStreamReader(System.in));
                         ^
  symbol:   method newInputStreamReader(InputStream)
  location: class DatagramClient
1 error

C:\Program Files\Java\jdk1.7.0_17\bin>javac DatagramClient.java

C:\Program Files\Java\jdk1.7.0_17\bin>java DatagramClient
Client is Running... Type  stop to Quit
stop

C:\Program Files\Java\jdk1.7.0_17\bin>java DatagramClient
Client is Running... Type  stop to Quit
hiii
Server: hhii
hii dipti
Server: hii dipti
```

Conclusion:

Lab Outcome Covered: