EXPERIMENT NUMBER –3.1

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CLASS AND GROUP – CSE-20IOT1

SEMESTER –3rd

1.TOPIC OF EXPERIMENT –

Use Network package to develop networking applications like client Server application.

2. AIM OF THE EXPERIMENT -

Write a program to create Client/Server socket to establish communication in bi-directional.

3. PROGRAM CODE -

```
//CODE FOR SERVER SIDE
import java.net.*;
import java.io.*;
class MyServer{
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();
}}
```

```
//CODE FOR CLIENT SIDE
class MyClient{
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();
}}
```

4. ERRORS ENCOUNTERED DURING PROGRAM'S EXECUTION (Kindly jot down the compile time errors encountered) -

Semi-colon missing in few statements.
Double quotes not closed
Comma not used.

5. PROGRAMS' EXPLANATION (in brief) -

We Create Java programs using client/server socket to establish communication in bi directional. Through data input and out stream we give input and get the output. We use string variable to read data from the user. It asks user to select network preferences to start its operations and it stops its operation when the suer enters that he is willing to "stop". A while infinite loop is run so that until stop is pressed it keeps on operating on the network. It displays what the message server is sending and thus closes the program.

6. OUTPUT-

7. LEARNING OUTCOMES-

1. Identify situations where computational methods would be useful.
2. Approach the programming tasks using techniques learnt and write pseudo-code.
3. Choose the right data representation formats based on the requirements of the problem.
4. Use the comparisons and limitations of the various programming constructs and choose the right one for the task.

EVALUATION COLUMN (To be filled by concerned faculty only)

Sr. No.	Parameters	Maximum Marks	Marks Obtained
1.	Worksheet Completion including writing learning objective/ Outcome	10	
2.	Post Lab Quiz Result	5	
3.	Student engagement in Simulation/ Performance/ Pre Lab Questions	5	
4.	Total Marks	20	