Experiment #3

Server.java

```
import java.io.*;
import java.net.*;
import java.util.Scanner;
public class MyServer {
public static void main(String[] args){
try{
ServerSocket ss=new ServerSocket(6668);
System.out.println("waiting for master to
connect...\n");
Socket s=ss.accept();//establishes connection with
master
System.out.println("master connected\n");
System.out.println("enter number of slaves:");
ServerSocket ss2=new ServerSocket(6667);
Scanner sc = new Scanner(System.in);
int n=sc.nextInt();
Socket[] sl= new Socket[n];
for(int i=0;i<n;i++){
   sl[i]=ss2.accept();//establishes connection with
slaves
   System.out.println("slave "+(i+1)+"
connected\n");}
System.out.println("waiting for master to send
msg\n");
DataInputStream dis=new
DataInputStream(s.getInputStream());
int x = (Integer)dis.readInt();
int y = (Integer)dis.readInt();
System.out.println("recieved msg from master..\n");
int sum = (x + y);
System.out.println(sum);
dis.close();
System.out.println("sending sum msg to
slaves..\n");
for(int i=0;i<n;i++){
DataOutputStream dout=new
DataOutputStream(sl[i].getOutputStream());
dout.writeInt(sum);
dout.flush();dout.close();}
System.out.println("disconnecting slaves..\n");
ss2.close();
System.out.println("disconnecting master..\n");
ss.close();
}catch(Exception e){System.out.println(e);}
} }
```

Master.java

```
import java.io.*;
import java.net.*;
import java.util.Scanner;
public class MyMaster {
public static void main(String[] args) {
Scanner userInput = new Scanner(System.in);
try{
Socket s=new Socket("localhost",6668);
DataOutputStream dout=new
DataOutputStream(s.getOutputStream());
System.out.println("Enter the first number: ");
int x = userInput.nextInt();
System.out.println("Enter the second number: ");
int y = userInput.nextInt();
dout.writeInt(x);
dout.writeInt(y);
dout.flush();
dout.close();
s.close();
}catch(Exception e){System.out.println(e);}
}
}
```

MyClient.java

```
import java.io.*;
import java.net.*;
import java.util.Scanner;
public class MyClient {
public static void main(String[] args) {
Scanner userInput = new Scanner(System.in);
try{
Socket s=new Socket("localhost",6667);
System.out.println("waiting for master to send
msg\n");
DataInputStream dis=new
DataInputStream(s.getInputStream());
int x = (Integer)dis.readInt();
System.out.println("recieved msg: "+x);
dis.close();
s.close();
}catch(Exception e){System.out.println(e);}
}
}
```

OUTPUT

Server

```
C:\Users\admin\Desktop\Distributed
>javac *.java

C:\Users\admin\Desktop\Distributed
>java MyServer
waiting for master to connect...

master connected

enter number of slaves:
2
slave 1 connected

slave 2 connected

waiting for master to send msg

recieved msg from master..

5
sending sum msg to slaves..

disconnecting slaves..

disconnecting master..
```

Master

```
C:\Users\admin\Desktop\Distribu
>java MyMaster
Enter the first number:
2
Enter the second number:
3
```

Client1

```
C:\Users\admin\Desktop\Distribut
>java MyClient
waiting for master to send msg

recieved msg: 5
```

Client2

```
C:\Users\admin\Desktop\Distribut
>java MyClient
waiting for master to send msg

recieved msg: 5
```