Assignment No. 1

- Server.java:

```
import java.rmi.*;

public class Server{

        public static void main(String[] args){try{

        ServerImpl serverImpl = new ServerImpl();

        Naming.rebind("Server", serverImpl);

        System.out.println("Server Started");
        }catch(Exception e){

        System.out.println("Exception occurred at
server!" + e.getMessage());}}}
```

- Client.java:

```
import java.rmi.*;

import java.util.Scanner;

public class Client{public static void main ( String[]
args){Scanner sc = new Scanner(System.in);

try{String serverURL = "rmi://localhost/Server";

ServerIntf serverIntf = (ServerIntf)
Naming.lookup(serverURL);

System.out.println("Enter Value of Number1");

double n1 = sc.nextDouble();

System.out.println("Enter Value of Number2");

double n2 = sc.nextDouble();

System.out.println("First Number is "+n1);

System.out.println("Second Number is "+n2);

System.out.println("----------Result----------
");

System.out.println("Addition is :" +
serverIntf.addition(n1,n2));

System.out.println("Substraction  is :" +
serverIntf.substraction(n1,n2));

System.out.println("multiplication is :" +
serverIntf.multiplication(n1,n2));

System.out.println("Division is :" +
serverIntf.division(n1,n2));

}catch(Exception e){

System.out.println("Exception occurred at client!" +
e.getMessage());}}}
```

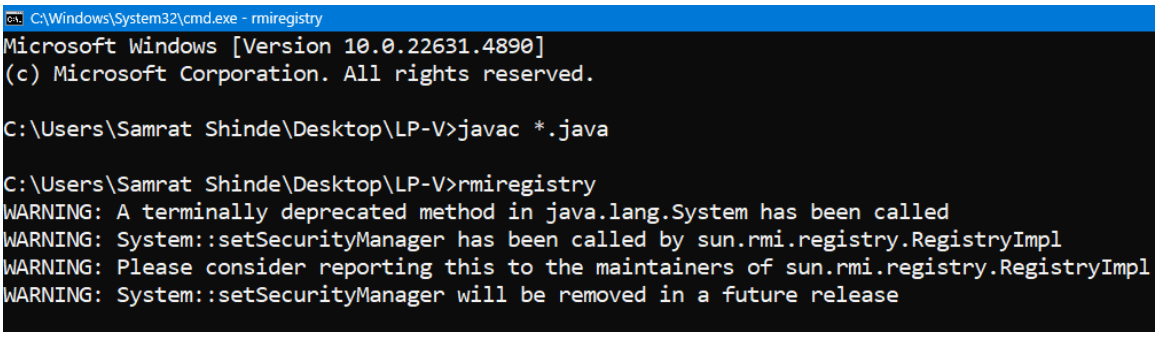
- ServerInterface.java:

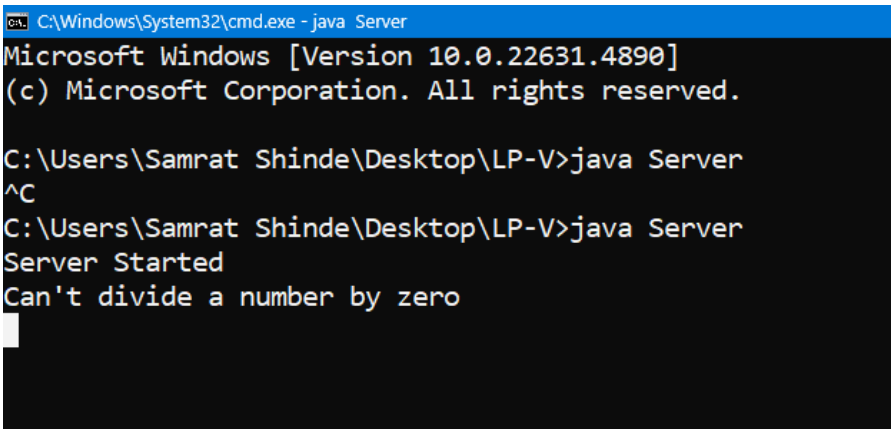
```
import java.rmi.*;

interface ServerIntf extends Remote{

public double addition (double n1, double n2)
throws RemoteException;public double substraction
(double n1, double n2) throws
RemoteException;public double multiplication
(double n1, double n2) throws RemoteException;
public double division (double n1, double n2)
throws RemoteException;}
```

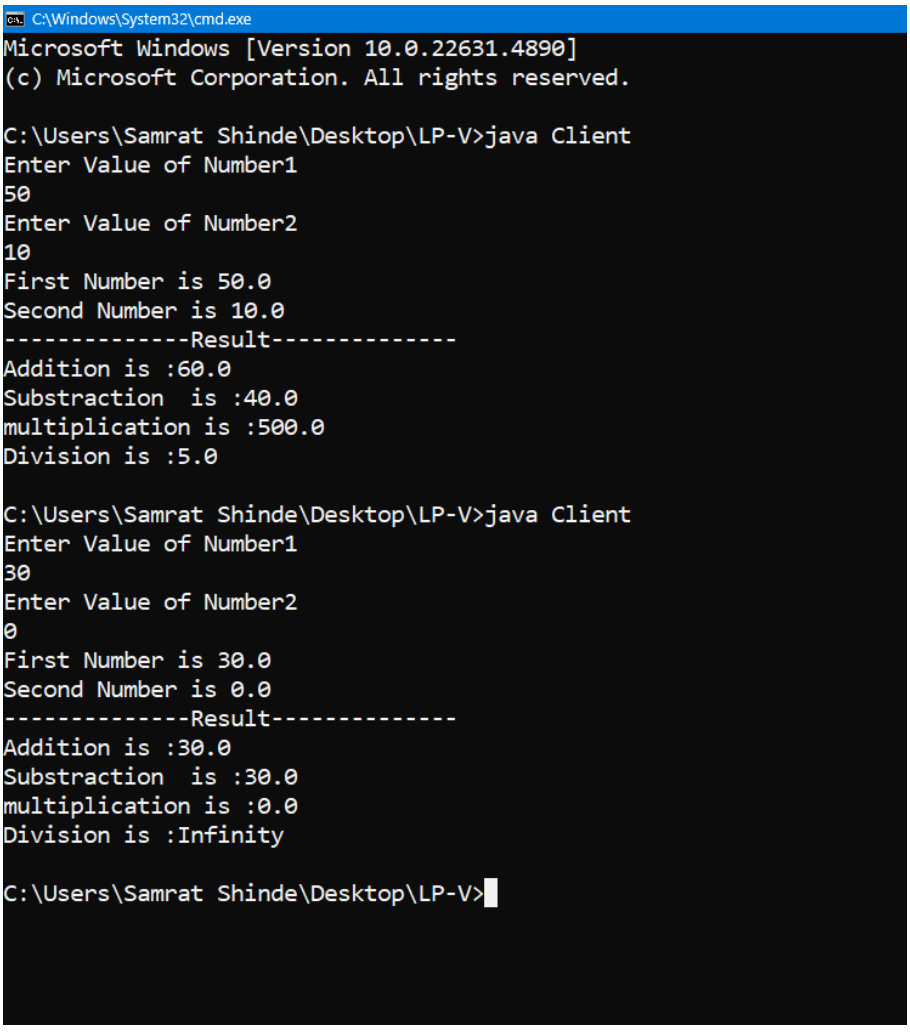
- ServerImplementation.java:

```
import java.rmi.*;

import java.rmi.server.*;

public class ServerImpl extends
UnicastRemoteObject implements ServerIntf{

public ServerImpl() throws RemoteException{}

public double addition (double n1, double n2)
throws RemoteException{return n1+n2;}public
double substraction (double n1, double n2) throws
RemoteException{return n1-n2;}public double
multiplication (double n1, double n2) throws
RemoteException{return n1*n2;}public double
division (double n1, double n2) throws
RemoteException{if(n2 !=0){return n1/n2;}
        else{System.out.println("Can't divide a
number by zero");}return n1/n2;}}
```

- Output:


C:\Windows\System32\cmd.exe - rmiregistry
Microsoft Windows [Version 10.0.22631.4890]
(c) Microsoft Corporation. All rights reserved.
C:\Users\Samrat Shinde\Desktop\LP-V>javac *.java
C:\Users\Samrat Shinde\Desktop\LP-V>rmiregistry
WARNING: A terminally deprecated method in java.lang.System has been called
WARNING: System::setSecurityManager has been called by sun.rmi.registry.RegistryImpl
WARNING: Please consider reporting this to the maintainers of sun.rmi.registry.RegistryImpl
WARNING: System::setSecurityManager will be removed in a future release


C:\Windows\System32\cmd.exe - java Server
Microsoft Windows [Version 10.0.22631.4890]
(c) Microsoft Corporation. All rights reserved.
C:\Users\Samrat Shinde\Desktop\LP-V>java Server
^C
C:\Users\Samrat Shinde\Desktop\LP-V>java Server
Server Started
Can't divide a number by zero


C:\Windows\System32\cmd.exe
Microsoft Windows [Version 10.0.22631.4890]
(c) Microsoft Corporation. All rights reserved.
C:\Users\Samrat Shinde\Desktop\LP-V>java Client
Enter Value of Number1
50
Enter Value of Number2
10
First Number is 50.0
Second Number is 10.0
-------------Result-------------
Addition is :60.0
Substraction is :40.0
multiplication is :500.0
Division is :5.0
C:\Users\Samrat Shinde\Desktop\LP-V>java Client
Enter Value of Number1
30
Enter Value of Number2
0
First Number is 30.0
Second Number is 0.0
-------------Result-------------
Addition is :30.0
Substraction is :30.0
multiplication is :0.0
Division is :Infinity
C:\Users\Samrat Shinde\Desktop\LP-V>