

## CODE :

### 1)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.print("Enter First Number: ");
            double num1 = sc.nextDouble();

            System.out.print("Enter Second Number: ");
            double num2 = sc.nextDouble();

            System.out.println("First Number Is: " + num1);
            System.out.println("Second Number Is: " + num2);

            System.out.println("----- Results -----");
            System.out.println("Addition Is: " +serverIntf.Addition(num1, num2));
            System.out.println("Subtraction Is: " +serverIntf.Subtraction(num1, num2));
            System.out.println("Multiplication Is: " +serverIntf.Multiplication(num1,
num2));

            System.out.println("Division Is: " +serverIntf.Division(num1, num2));
        }catch(Exception e){
            System.out.println("Exception Occurred At Client!" + e.getMessage());
        }
    }
}
```

## **2)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());

        }

    }

}
```

## **3)ServerImpl.java :**

```
import java.rmi.*;
import java.rmi.server.*;

public class ServerImpl extends UnicastRemoteObject

    implements ServerIntf {

        public ServerImpl() throws RemoteException{

        }

        public double Addition(double num1, double num2) throws RemoteException{

            return num1 + num2;

        }

        public double Subtraction(double num1, double num2) throws RemoteException{

            return num1 - num2;

        }

        public double Multiplication(double num1, double num2) throws RemoteException{
```

```

        return num1 * num2;
    }
    public double Division(double num1, double num2) throws RemoteException{
        if(num2 != 0){
            return num1/num2;
        }
        else{
            System.out.println("Cannot Divide A Number By Zero!");
        }
        return num1/num2;
    }
}

```

#### **4)ServerIntf.java :**

```

import java.rmi.*;

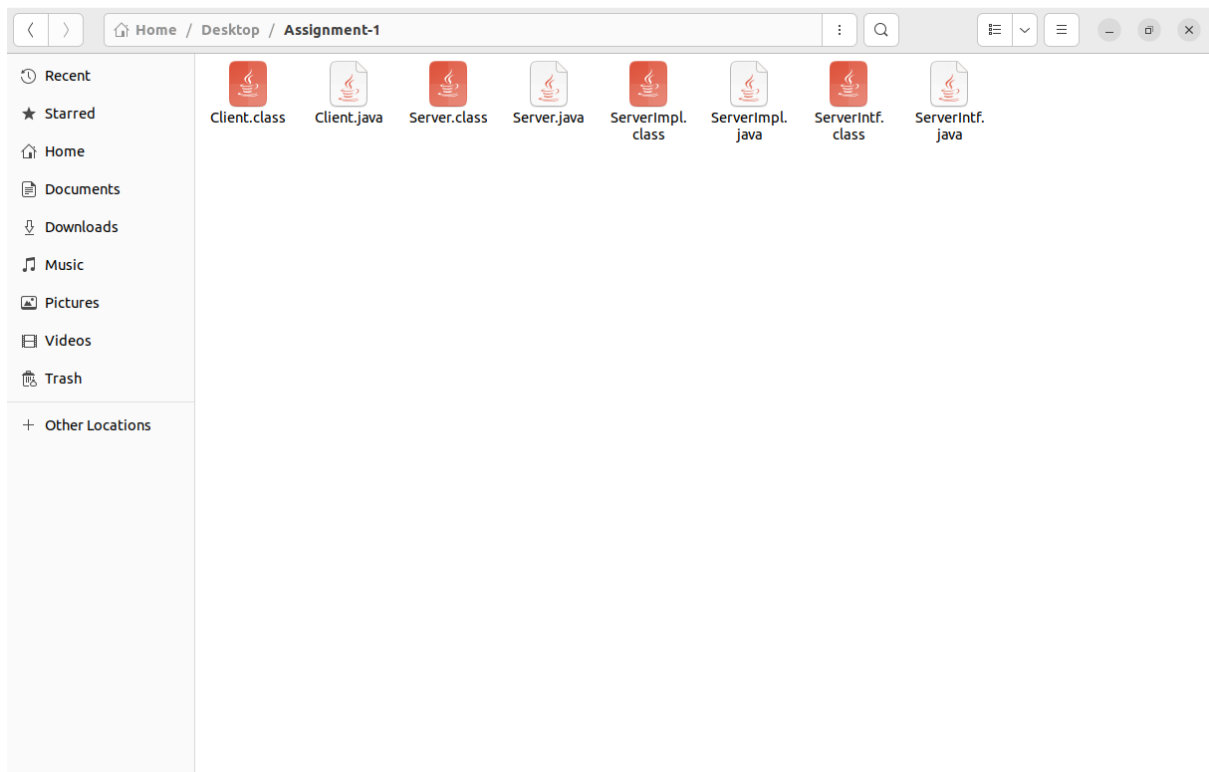
interface ServerIntf extends Remote{

    // Syntax for method declaration: access_specifier return_type method_name(arguments...){
    return value}

    public double Addition(double num1, double num2) throws RemoteException;
    public double Subtraction(double num1, double num2) throws RemoteException;
    public double Multiplication(double num1, double num2) throws RemoteException;
    public double Division(double num1, double num2) throws RemoteException;
}

```

# OUTPUT:



```
aatif@aatif: ~/Desktop/Assignment-1
aatif@aatif:~/Desktop/Assignment-1$ javac -version
javac 11.0.20
aatif@aatif:~/Desktop/Assignment-1$ javac *.java
aatif@aatif:~/Desktop/Assignment-1$ rmiregistry
```

```
aatif@aatif: ~/Desktop/Assignment-1
aatif@aatif:~/Desktop/Assignment-1$ java Server
Server Started....
```

```
aatif@aatif: ~/Desktop/Assignment-1
aatif@aatif:~/Desktop/Assignment-1$ java Client
Enter First Number: 25
Enter Second Number: 4
First Number Is: 25.0
Second Number Is: 4.0
----- Results -----
Addition Is: 29.0
Subtraction Is: 21.0
Multiplication Is: 100.0
Division Is: 6.25
aatif@aatif:~/Desktop/Assignment-1$
```