Code

calci_interface.java

```
package calci;
import java.rmi.Remote;
import java.rmi.RemoteException;

public interface calci_interface extends Remote{
   int addNum(int... arr) throws RemoteException;

   double multiply(double... arr) throws RemoteException;
}
```

calci_definition.java

```
package calci;

class Calci implements calci_interface{

   public Calci(){}

   public int addNum(int... arr){
      int total = 0;

      for(int x: arr) total += x;

      return total;
   }


   public double multiply(double... arr){
      double res = 1;
      for(double x:arr) res *= x;
      return res;
   }
}
```

Client.java

```
package calci;

import java.rmi.registry.LocateRegistry;
import java.rmi.registry.Registry;
import java.util.Arrays;
import java.util.Scanner;


public class Client {

   private Client(){}
   public static void main(String[] args) {
```

```
        String host = (args.length>0) ? args[0]:null;
        Scanner sc = new Scanner(System.in);
        try{
            Registry registry = LocateRegistry.getRegistry(host);
            calci_interface stub = (calci_interface) registry.lookup("Calci");

            while(true){
                System.out.println("1. Add\n2.Multiply\n3. Exit");
                String key = sc.nextLine().toLowerCase();
                if(key.equals("exit")) break;
                switch(key){
                    case "add":
                        System.out.print("Enter your numbers: ");
                        System.out.println("result: "+stub.addNum(
                            Arrays.stream(
                                sc.nextLine().split("\\s+")
                            ).mapToInt(Integer::parseInt).toArray()
                        ));
                        break;

                    case "multiply":
                        System.out.print("Enter your numbers: ");
                        System.out.println("result: "+stub.multiply(
                            Arrays.stream(
                                sc.nextLine().split("\\s+")
                            ).mapToDouble(Double::parseDouble).toArray()
                        ));
                        break;

                    default:
                        System.out.println("Command: "+key+" not found");
                        break;

                }

            }
        }
        catch (Exception e){
            System.err.println("Client exception: " + e.toString());
            e.printStackTrace();
        }
    }

}
```

Server.java

```
package calci;

import java.rmi.registry.Registry;
import java.rmi.registry.LocateRegistry;
```

```
import java.rmi.server.UnicastRemoteObject;

public class Server {
   public Server(){}

   public static void main(String[] args) {
      try{
         calci_interface skeCalci = (calci_interface) UnicastRemoteObject.exportObject(
            new Calci(),0
         );

         Registry registry = LocateRegistry.getRegistry();
         registry.bind("Calci",skeCalci);

         System.out.println("Server is ready");
      }
      catch (Exception e){
         System.err.println("Server Exception: "+e.toString());
         e.printStackTrace();
      }
   }
}
```

Output

```
slowgamer@adnan-System-Product-Name:~/Desktop/College/sem8/DC/exp_2$ javac -d . example/**/*.java
slowgamer@adnan-System-Product-Name:~/Desktop/College/sem8/DC/exp_2$ ls
calci  example
slowgamer@adnan-System-Product-Name:~/Desktop/College/sem8/DC/exp_2$ ls calci
Calci.class  calci_interface.class  Client.class  Server.class
slowgamer@adnan-System-Product-Name:~/Desktop/College/sem8/DC/exp_2$ rmiregistry &
[1] 99256
slowgamer@adnan-System-Product-Name:~/Desktop/College/sem8/DC/exp_2$ java calci.Server
Server is ready
```

```
slowgamer@adnan-System-Product-Name:~/Desktop/College/sem8/DC/exp_2$ java calci.Client
1. Add
2.Multiply
3. Exit
add
Enter your numbers: 45 24
result: 69
1. Add
2.Multiply
3. Exit
1
Command: 1 not found
1. Add
2.Multiply
3. Exit
add
Enter your numbers: 45 85 64 455 856 565
result: 2070
1. Add
2.Multiply
3. Exit
multiply
Enter your numbers: 45 856 5488 0.001
result: 211397.76
1. Add
2.Multiply
3. Exit
exit
slowgamer@adnan-System-Product-Name:~/Desktop/College/sem8/DC/exp_2$
```