

Net Bean RMI

Write Program in DefaultPackage. (point to note)

```
// Rem.java
```

```
import java.rmi.*;
public interface Rem extends Remote{

    public int addNum(int a,int b)throws RemoteException;

    public int subNum(int a,int b)throws RemoteException;
}
```

```
// Rem_impt.java
```

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

public class Rem_impt extends UnicastRemoteObject implements Rem{

    Rem_impt()throws RemoteException{}

    public int addNum(int a,int b){return a+b;}

    public int subNum(int a,int b){return a-b;}

}
```

```
//Server.java
```

```
import java.rmi.*;
import java.net.*;
import java.rmi.registry.*;

public class Server{

    public static void main(String args[]){
        try{
            Rem_impt locobj = new Rem_impt();
            Registry rgsty = LocateRegistry.createRegistry(1888);
            rgsty.rebind("Rem", locobj);

        }catch(RemoteException re){System.out.println(re);}
    }
}
```

```
//Client.java

import java.rmi.*;
import java.net.*;
import java.io.*;
import java.util.*;
import java.rmi.registry.*;

public class Client{

    public static void main(String args[]){

        Scanner sc = new Scanner(System.in);
        System.out.println("Enter first number");
        int a = sc.nextInt();
        System.out.println("Enter first number");
        int b = sc.nextInt();
        try{

            Rem_impt remObj = new Rem_impt();
            Registry rgsty = LocateRegistry.getRegistry(1888);
            rgsty.rebind("Rem", remObj);
            System.out.println("Sum = " + remObj.addNum(a,b));
            System.out.println("Sum = " + remObj.subNum(a,b));
        }catch (RemoteException re){System.out.println(re);}
    }
}
```

Lab 2:

Using IntelliJ RMI & Netbean:

Interface: RmiServerIntf.java

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

public interface RmiServerIntf extends Remote{
    public String getMessage() throws RemoteException;
}
```

//Implementation: RmiImp.java

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

public class RmiImp extends UnicastRemoteObject implements
RmiServerIntf {

    public static final String MESSAGE = "Hello World";

    public RmiImp() throws RemoteException {
        super(0);
    }
    public String getMessage() {
        return MESSAGE;
    }
}

//Server:
import java.net.MalformedURLException;
import java.rmi.Naming;
import java.rmi.RemoteException;
import java.rmi.registry.LocateRegistry;
public class RmiServer {

    public static void main(String[] args) throws RemoteException,
MalformedURLException {
        System.out.println("RmiServer Strarted");
        try{

            LocateRegistry.createRegistry(1099);
            System.out.println("java RMI registry created");
            RmiImp obj = new RmiImp();
            Naming.rebind("rmi://localhost/RmiServer",obj);
            System.out.println("PeerServer bound in registy");
        }
        catch(RemoteException re){
            System.out.println("java RMI registry already exist");
        }
    }
}
```

//Client:

```
public class RmiClient {  
    public static void main(String[] args) throws Exception {  
        RmiServerIntf obj = (RmiServerIntf)  
Naming.lookup("rmi://localhost/RmiServer");  
        System.out.println(obj.getMessage());  
    }  
}
```

Reference:

<https://stackoverflow.com/questions/15685686/java-rmi-connectexception-connection-refused-to-host-127-0-1-1>

Point 1:

Oh but it would, observing it on my Archlinux box now. Creating the registry with

```
LocateRegistry.createRegistry(1099)
```

in my server **class** rather than getting it with

```
LocateRegistry.getRegistry()
```

solves the problem **for** me.

Point 2:

When I got the same error on my machine ("**connection is refused**"), the reason was that I had defined the following on the server side:

```
Naming.rebind("rmi://localhost:8080/AddService"  
,addService);
```

Thus the server binds both the IP = **127.0.0.1** and the port **8080**. But on the client side I had used:

```
AddServerInterface st = (AddServerInterface)Naming.lookup("rmi://localhost"  
+"/AddService");
```

Thus I forgot to add the port number after the localhost, so I rewrote the above command and added the port number **8080** as follows:

```
AddServerInterface st = (AddServerInterface)Naming.lookup("rmi://localhost:8080"  
+"/AddService");
```

and everything worked fine.