

Practical: 2

AIM-Implement Remote Method Invocation in JAVA.

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Practical: 2

SampleServerImpl.java

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

public class SampleServerImpl extends UnicastRemoteObject
    implements SampleServer
{
    SampleServerImpl() throws RemoteException
    {
        super();
    }

    /* SampleServerImpl.java */

    public static void main(String args[])
    {
        try
        {
            // System.setSecurityManager(new RMISecurityManager());

            //set the security manager

            //create a local instance of the object

            SampleServerImpl Server = new SampleServerImpl();

            //put the local instance in the registry

            Naming.rebind("SAMPLE-SERVER" , Server);

            System.out.println("Server waiting.....");

        }

        catch (java.net.MalformedURLException me) {

            System.out.println("Malformed URL: " + me.toString()); }
    }
}
```

Practical: 2

```
catch (RemoteException re) {  
    System.out.println("Remote exception: " + re.toString()); }  
}
```

```
public int sum(int a,int b) throws RemoteException  
{  
    return a + b;  
}  
}
```

SampleClient.java

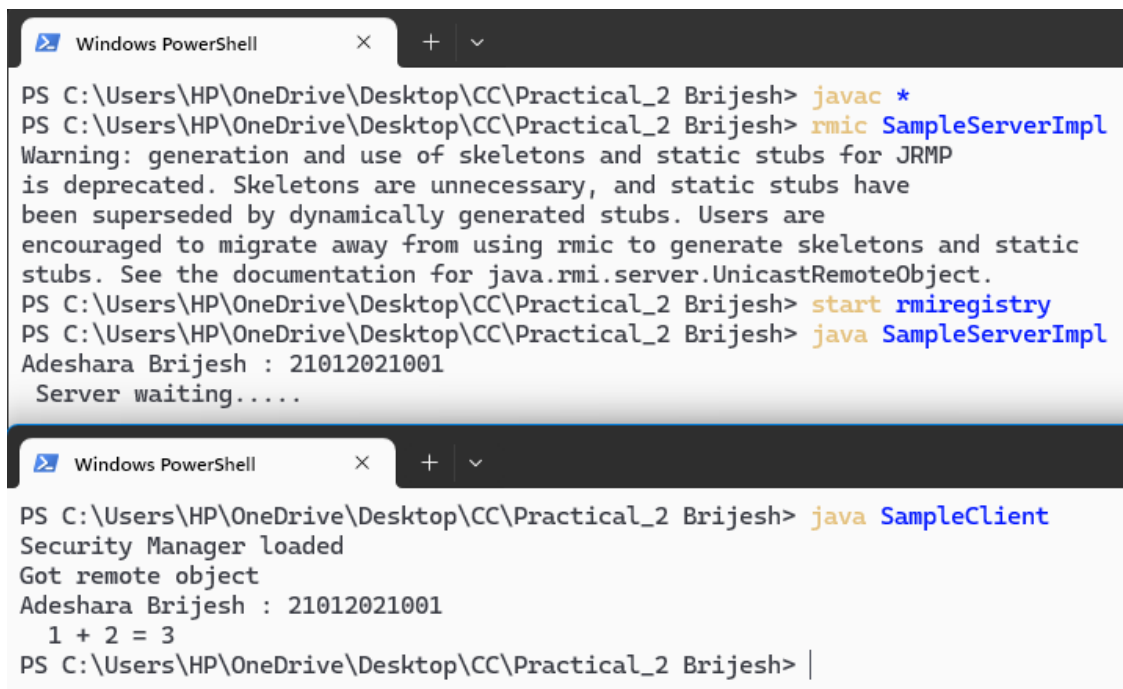
```
import java.rmi.*;  
import java.rmi.server.*;  
  
public class SampleClient  
{  
    public static void main(String[] args)  
    {  
        try  
        {  
            System.out.println("Security Manager loaded");  
            String url = "//localhost/SAMPLE-SERVER";  
            SampleServer remoteObject = (SampleServer)Naming.lookup(url);  
            System.out.println("Got remote object");  
            System.out.println(" 1 + 2 = " + remoteObject.sum(1,2) );  
        }  
    }  
}
```

Practical: 2

```
catch (RemoteException exc) {  
  
    System.out.println("Error in lookup: " + exc.toString()); }  
  
catch (java.net.MalformedURLException exc) {  
  
    System.out.println("Malformed URL: " + exc.toString()); }  
  
catch (java.rmi.NotBoundException exc) {  
  
    System.out.println("NotBound: " + exc.toString());  
  
    }  
  
    }  
  
    }
```

SampleServer.java

```
import java.rmi.*;  
  
public interface SampleServer extends Remote  
{  
  
    public int sum(int a,int b) throws RemoteException;  
  
}
```



```
Windows PowerShell
PS C:\Users\HP\OneDrive\Desktop\CC\Practical_2 Brijesh> javac *
PS C:\Users\HP\OneDrive\Desktop\CC\Practical_2 Brijesh> rmic SampleServerImpl
Warning: generation and use of skeletons and static stubs for JRMP
is deprecated. Skeletons are unnecessary, and static stubs have
been superseded by dynamically generated stubs. Users are
encouraged to migrate away from using rmic to generate skeletons and static
stubs. See the documentation for java.rmi.server.UnicastRemoteObject.
PS C:\Users\HP\OneDrive\Desktop\CC\Practical_2 Brijesh> start rmiregistry
PS C:\Users\HP\OneDrive\Desktop\CC\Practical_2 Brijesh> java SampleServerImpl
Adeshara Brijesh : 21012021001
Server waiting.....

Windows PowerShell
PS C:\Users\HP\OneDrive\Desktop\CC\Practical_2 Brijesh> java SampleClient
Security Manager loaded
Got remote object
Adeshara Brijesh : 21012021001
1 + 2 = 3
PS C:\Users\HP\OneDrive\Desktop\CC\Practical_2 Brijesh> |
```