LAB # 6

**OBJECTIVE:** To learn RMI-IIOP

**Task:** Create RMI IIOP application in which take a sentence at runtime on the client application and let the server return its reverse.  
E.g. input could be: subject is distributed computing   
output should be: computing distributed is subject.

**HelloInterface: -**

import java.rmi.Remote;

public interface HelloInterface extends Remote {

public String sayHello(String from) throws java.rmi.RemoteException;

}

**HelloImpl class: -**

import javax.rmi.PortableRemoteObject;

import java.rmi.RemoteException;

public class HelloImpl extends PortableRemoteObject implements HelloInterface {

public HelloImpl() throws RemoteException {

super();

}

public String sayHello(String from) throws RemoteException {

String[] words = from.split(" ");

String reverse = "";

for(int i = words.length-1; i >= 0; i--){

reverse += words[i]+" ";

}

return reverse;

}

}

**HelloServer Class: -**

import javax.naming.InitialContext;

import javax.naming.Context;

public class HelloServer {

public static void main(String[] args) {

try {

HelloImpl helloRef = new HelloImpl();

Context initialNamingContext = new InitialContext();

initialNamingContext.rebind("HelloService", helloRef );

System.out.println("Hello Server: Ready...");

} catch (Exception e) {

System.out.println("Trouble: " + e);

e.printStackTrace();

}

}

}

**HelloClient Class: -**

import java.net.MalformedURLException;

import javax.rmi.\*;

import java.rmi.\*;

import java.util.Vector;

import javax.naming.\*;

import java.io.\*;

public class HelloClient {

public static void main( String args[] ) {

Context ic;

Object objref;

HelloInterface hi;

try {

ic = new InitialContext();

objref = ic.lookup("HelloService");

System.out.println("Client: Obtained a ref. to Hello server.");

hi = (HelloInterface) PortableRemoteObject.narrow(objref, HelloInterface.class);

String msg = "subject is distributed computing";

System.out.println("Original Message: "+msg);

System.out.println("Output: "+hi.sayHello(msg));

} catch( Exception e ) {

System.err.println("Exception " + e + "Caught");

e.printStackTrace( );

return;

}

}

}

**Output:-**



