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Code:

ReverseClient.java

```
// client

import ReverseModule.*;

import org.omg.CosNaming.*;

import org.omg.CosNaming.NamingContextPackage.*;

import org.omg.CORBA.*;

import java.io.*;

class ReverseClient

{

    public static void main(String args[])

    {

        Reverse ReverseImpl=null;

        try

        {

            // initialize the ORB

            org.omg.CORBA.ORB orb = org.omg.CORBA.ORB.init(args, null);

            org.omg.CORBA.Object objRef = orb.resolve_initial_references ("NameService");

            NamingContextExt ncRef = NamingContextExtHelper.narrow (objRef);

            String name = "Reverse";

            ReverseImpl = ReverseHelper.narrow(ncRef.resolve_str(name));

            System.out.println("Enter String=");
```

```

BufferedReader br = new BufferedReader(new InputStreamReader(System.in));

String str = br.readLine();

String tempStr = ReverseImpl.reverse_string(str);

System.out.println(tempStr);

}

catch (Exception e)

{

e.printStackTrace();

}}

```

ReverseImpl.java

```

import ReverseModule.ReversePOA;

import java.lang.String;

class ReverseImpl extends ReversePOA

{

ReverseImpl()

{

super();

System.out.println("Reverse Object Created");

}

public String reverse_string(String name)

{

StringBuffer str=new StringBuffer(name);

str.reverse();

return ("Server Send "+str);}}

```

Server.java

```
import ReverseModule.*;

import org.omg.CosNaming.*;

import org.omg.CosNaming.NamingContextPackage.*;

import org.omg.CORBA.*;

import org.omg.PortableServer.*;

class ReverseServer

{

    public static void main(String[] args)

    {

        try

        { // initialize the ORB

            org.omg.CORBA.ORB orb = org.omg.CORBA.ORB.init(args, null);

            // initialize the BOA/POA

            POA rootPOA = POAHelper.narrow(orb.resolve_initial_references("RootPOA"));

            rootPOA.the_POAManager().activate();

            // creating the calculator object

            ReverseImpl rvr = new ReverseImpl();

            // get the object reference from the servant class

            org.omg.CORBA.Object ref = rootPOA.servant_to_reference(rvr);

            System.out.println("Step1");

            Reverse h_ref = ReverseModule.ReverseHelper.narrow(ref);

            System.out.println("Step2");

            org.omg.CORBA.Object objRef = orb.resolve_initial_references("NameService");

            System.out.println("Step3");

            NamingContextExt ncRef = NamingContextExtHelper.narrow(objRef);
```

```

System.out.println("Step4");

String name = "Reverse";

NameComponent path[] = ncRef.to_name(name);

ncRef.rebind(path,h_ref);

System.out.println("Reverse Server reading and waiting ... ");

orb.run();

}

catch (Exception e)

{

    e.printStackTrace();

}}

```

Output:

```

patil@PATIL: ~/Downloads/DS/Assign2
patil@PATIL:~/Downloads/DS/Assign2$ idlj -fall ReverseModule.idl
patil@PATIL:~/Downloads/DS/Assign2$ javac *.java ReverseModule/*.java
ReverseModule/_ReverseStub.java:46: warning: IORCheckImpl is internal proprietary API and may be removed in a future release
    com.sun.corba.se.impl.orbutil.IORCheckImpl.check(str, "ReverseModule._ReverseStub");
                                ^
Note: ReverseModule/ReversePOA.java uses unchecked or unsafe operations.
Note: Recompile with -Xlint:unchecked for details.
1 warning
patil@PATIL:~/Downloads/DS/Assign2$ orbd -ORBInitialPort 1056&
[1] 42647
patil@PATIL:~/Downloads/DS/Assign2$ java ReverseServer -ORBInitialPort 1056&
[2] 42668
patil@PATIL:~/Downloads/DS/Assign2$ Reverse Object Created
Step1
Step2
Step3
Step4
Reverse Server reading and waiting....

```

```

patil@PATIL:~/Downloads/DS/Assign2$ java ReverseClient -ORBInitialPort 1056 -ORBInitialHost localhost
Enter String=
Shinchan
Server Send nahcnihs
patil@PATIL:~/Downloads/DS/Assign2$

```