

// ReverseClient.java

```
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 object request broker org.omg.CORBA.ORB

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


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

                                ncRef                             =
    NamingContextExt
NamingContextExtHelper.narrow(objRef);


    String name = "Reverse";

    // narrow converts generic object into string type

    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));

}

}

/*

*****/
*/

//ReverseServer.java

```
import ReverseModule.Reverse;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 object
```

```
ReverseImpl rvr = new ReverseImpl();
```

```
// get the object reference from the servant class org.omg.CORBA.Object
```

```
rootPOA.servant_to_reference(rvr);
```

ref =

```
System.out.println("Step1");
```

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

```
System.out.println("Step2");
```

```
orb.resolve_initial_references("NameService");
```

org.omg.CORBA.Object objRef =

```
System.out.println("Step3");
```

```
NamingContextExtHelper.narrow(objRef);
```

NamingContextExt ncRef =

```
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();
    }
}

/*****
*****/

```

//ReverseModule.idl

module ReverseModule

{

interface Reverse

{

string reverse_string(in string str);

};

};

/*

*****/
*/

- **OUTPUT :**

```
Activities Terminal Apr 2 22:00
sukanya@sukanya-VirtualBox: ~/distri/assignment_2
sukanya@sukanya-VirtualBox:~$ ls
Desktop Documents Music Public Templates
distri Downloads Pictures tmp Videos
sukanya@sukanya-VirtualBox:~$ cd distri
sukanya@sukanya-VirtualBox:~/distri$ mkdir assignment_2
sukanya@sukanya-VirtualBox:~/distri$ cd assignment_2
sukanya@sukanya-VirtualBox:~/distri/assignment_2$ nano ReverseClient.java
sukanya@sukanya-VirtualBox:~/distri/assignment_2$ nano ReverseImpl.java
sukanya@sukanya-VirtualBox:~/distri/assignment_2$ nano ReverseServer.java
sukanya@sukanya-VirtualBox:~/distri/assignment_2$ nano ReverseModule.idl
sukanya@sukanya-VirtualBox:~/distri/assignment_2$ idlj -fall ReverseModule.idl
sukanya@sukanya-VirtualBox:~/distri/assignment_2$ javac *.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
sukanya@sukanya-VirtualBox:~/distri/assignment_2$ javac *.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
sukanya@sukanya-VirtualBox:~/distri/assignment_2$ orbd -ORBInitialPort 10508
[1] 9545
sukanya@sukanya-VirtualBox:~/distri/assignment_2$ java ReverseServer -ORBInitialPort 10508 -ORBInitialHost localhost
[2] 9563
[3] 9564
sukanya@sukanya-VirtualBox:~/distri/assignment_2$ Reverse Object Created
Step1
Step2
-ORBInitialHost: command not found
Step3
Step4
Reverse Server reading and waiting....
sukanya@sukanya-VirtualBox:~/distri/assignment_2$
```

```
Activities Terminal Apr 2 22:01
sukanya@sukanya-VirtualBox: ~/distri/assignment_2
sukanya@sukanya-VirtualBox:~/distri/assignment_2$ java ReverseClient -ORBInitialPort 1050 -ORBInitialHost localhost
Enter String=
Hello Puneer
Server Send rakenuP olleh
sukanya@sukanya-VirtualBox:~/distri/assignment_2$
```