

```
//reversemodule
module ReverseModule
{
    interface Reverse
    {
        string reverse_string(in string str);
    };
};
```

// ReverseImpl// Contains the implementation of the methods defined in the IDL file.

```
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

```
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 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();
    }
}
}
```

```
// 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();
}
}
}

```

//output

```

(base) itl1@itl1-OptiPlex-390:~/reverse$ ls
ReverseClient.java ReverseImpl.java ReverseModule.idl ReverseServer.java
(base) itl1@itl1-OptiPlex-390:~/reverse$ idlj -fall ReverseModule.idl
ReverseModule.idl (line 5): Expected one of `in' `out' `inout'; encountered `<identifier>'.
    string reverse_string(instring str);
                        ^

```

```

(base) itl1@itl1-OptiPlex-390:~/reverse$ idlj -fall ReverseModule.idl

```

```

(base) itl1@itl1-OptiPlex-390:~/reverse$ ls

```

```

ReverseClient.java ReverseModule ReverseServer.java

```

```

ReverseImpl.java ReverseModule.idl

```

```

(base) itl1@itl1-OptiPlex-390:~/reverse$ javac *.java ReverseModule/*.java

```

Note: ReverseModule/ReversePOA.java uses unchecked or unsafe operations.

Note: Recompile with -Xlint:unchecked for details.

```

(base) itl1@itl1-OptiPlex-390:~/reverse$ orbd -ORBInitialPort 1050&

```

```

[1] 5657

```

```

(base) itl1@itl1-OptiPlex-390:~/reverse$ java ReverseServer -ORBInitialPort 1050 -
ORBInitialHost localhost&

```

```

[2] 5691

```

```

(base) itl1@itl1-OptiPlex-390:~/reverse$ Reverse Object Created

```

Step1

Step2

Step3

Step4

Reverse Server reading and waiting....

```
(base) itl1@itl1-OptiPlex-390:~/reverse$ java ReverseClient -ORBInitialPort 1050 -  
ORBInitialHost localhost  
Enter String=  
Nilam  
Server Send maliN  
(base) itl1@itl1-OptiPlex-390:~/reverse$
```