

```
/*
```

```
Assignment 2: To develop any distributed application with CORBA  
program using JAVA IDL */
```

```
// 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 object request broker

    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";


    // 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          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();
}
}
}

/*****
*****/
```

```
//ReverseModule.idl
```

```
module ReverseModule
```

```
{
```

```
    interface Reverse
```

```
    {
```

```
        string reverse_string(in string str);
```

```
    };
```

```
};
```

```
/**
*****
*****/
```


//Output

/*

Terminal 1:

```
jayshree@jayshree:~/Desktop/CL9/Ass3/IDL CORBA$ idlj -fall  
ReverseModule.idl
```

```
jayshree@jayshree:~/Desktop/CL9/Ass3/IDL CORBA$ javac *.java  
ReverseModule/*.java
```

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

Note: Recompile with -Xlint:unchecked for details.

```
jayshree@jayshree:~/Desktop/CL9/Ass3/IDL CORBA$ orbd -  
ORBInitialPort 1050&
```

[1] 2136

```
jayshree@jayshree:~/Desktop/CL9/Ass3/IDL CORBA$ java  
ReverseServer -ORBInitialPort 1050& -ORBInitialHost localhost&
```

[2] 2157

[3] 2158

```
jayshree@jayshree:~/Desktop/CL9/Ass3/IDL CORBA$ Reverse Object  
Created
```

Step1

Step2

-ORBInitialHost: command not found

Step3

Step4

Reverse Server reading and waiting....

Terminal 2

```
jayshree@jayshree:~/Desktop/CL9/Ass3/IDL CORBA$ java  
ReverseClient -ORBInitialPort 1050 -ORBInitialHost localhost
```

Enter String=

hi this is corba application..

Server Send ..noitacilppa abroc si siht ih

```
jayshree@jayshree:~/Desktop/CL9/Ass3/IDL CORBA$
```

*/
