

## DS Lab Assignment 2

### Code

#### 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

            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);
    }
}

```

#### **ReverseModule.idl**

```

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

```

#### **ReverseServer.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
        ReversImpl rvr = new ReversImpl();

        // 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();

    }}

```

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### Output

```
C:\Users\Dell\Desktop\Corba_addition>javac *.java  
C:\Users\Dell\Desktop\Corba_addition>Start orbd -ORBInitialPort 1050  
C:\Users\Dell\Desktop\Corba_addition>java calc_server -ORBInitialPort 1050 -ORBInitialHost  
localhost&  
server ready and waiting...
```

```
C:\Users\Dell>cd Desktop  
C:\Users\Dell\Desktop>cd Corba addition  
C:\Users\Dell\Desktop\Corba addition>java calc_client -ORBInitialPort 1050 -ORBInitialHost  
localhost  
1. Addition  
2. Subtraction  
3. Multiplication  
4. Division  
5. Exit  
Enter your choice:  
1  
Enter number1:  
10  
Enter number2:  
10  
Result is: 20.0  
1. Addition  
2. Subtraction  
3. Multiplication  
4. Division
```