ASSIGNMENT NO. 2

- **Code for ReverseString:**

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 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();
        }
    }
}
```

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); };
};
```

- **Output:**

Server:

```
~/LP5/CORBA$ idlj -fall ReverseModule.idl
~/LP5/CORBA$ javac *.java ReverseModule/*.java
Note: ReverseModule/ReversePOA.java uses unchecked or unsafe
operations.
Note: Recompile with -Xlint:unchecked for details.
~/LP5/CORBA$ orbd -ORBInitialPort 1050&
[1] 2769
~/LP5/CORBA$ java ReverseServer -ORBInitialPort 1050& -ORBInitialHost
localhost& [2] 2797
[3] 2798
~/LP5/CORBA$ Reverse Object Created
Step1
Step2
Step3
```

```
-ORBInitialHost: command not found
Step4
Reverse Server reading and waiting....

[4]+ Exit 127                  -ORBInitialHost localhost
~/LP5/CORBA$
```

Client:

```
~/LP5/CORBA$ java ReverseClient -ORBInitialPort 1050 -ORBInitialHost
localhost
Enter String=This is CORBA Program!
Server Send !margorP ABROC si sihT ~/LP5/CORBA$
```