Assignment no:2

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";
            //Helper class provides narrow method that cast corba object reference (ref) into the
java interface
            // System.out.println("Step2");
            // Look ups "Reverse" in the naming context
            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();
         }
   }
}
```

ReverseServer.java

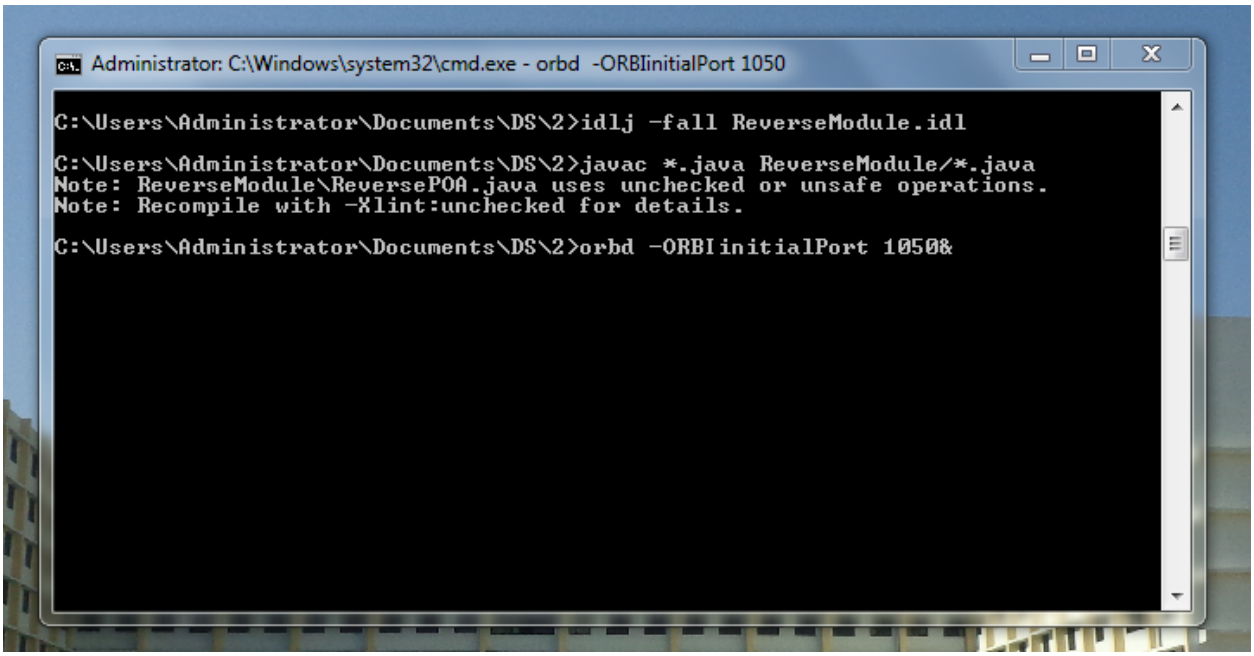
```
import ReverseModule.Reverse;
import org.omg.CosNaming.*;
import org.omg.CosNaming.NamingContextPackage.*;
import org.omg.CORBA.*;
import org.omg.PortableServer.*;
class ReverseServer
{
   public static void main(String[] args)
   {
      try{
         // initialize the ORB
         org.omg.CORBA.ORB orb = org.omg.CORBA.ORB.init(args,null);
         // initialize the portable object adaptor (BOA/POA) connects client request using object
reference
         //uses orb method as resolve_initial_references
         POA rootPOA = POAHelper.narrow(orb.resolve_initial_references("RootPOA"));
         rootPOA.the_POAManager().activate();
         // creating an object of ReverseImpl class
         ReverseImpl rvr = new ReverseImpl();
         //server consist of 2 classes ,servent and server. The servent is the subclass of
ReversePOA which is generated by the idlj compiler
         // The servent ReverseImpl is the implementation of the ReverseModule idl interface
         // get the object reference from the servant class
         //use root POA class and its method servant_to_reference
         org.omg.CORBA.Object ref = rootPOA.servant_to_reference(rvr);
         // System.out.println("Step1");
         Reverse h_ref = ReverseModule.ReverseHelper.narrow(ref);// Helper class provides
narrow method that cast corba object reference (ref) into the java interface
         // System.out.println("Step2");
         // orb layer uses resolve_initial_references method to take initial reference as
NameService
         org.omg.CORBA.Object objRef = orb.resolve_initial_references("NameService");
         //Register new object in the naming context under the Reverse
         // 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);
         //Server run and waits for invocations of the new object from the client
         System.out.println("Reverse Server reading and waiting....");
```

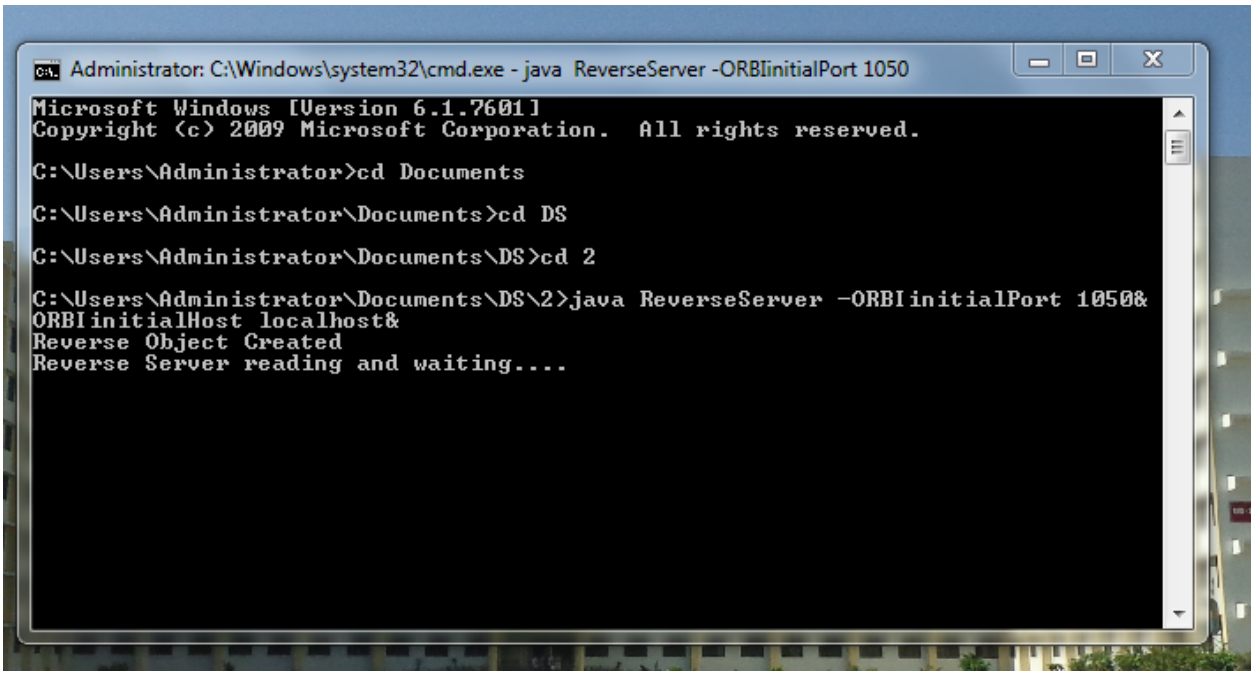
```
            orb.run();
        }
        catch(Exception e){
            e.printStackTrace();
        }
    }
}
```

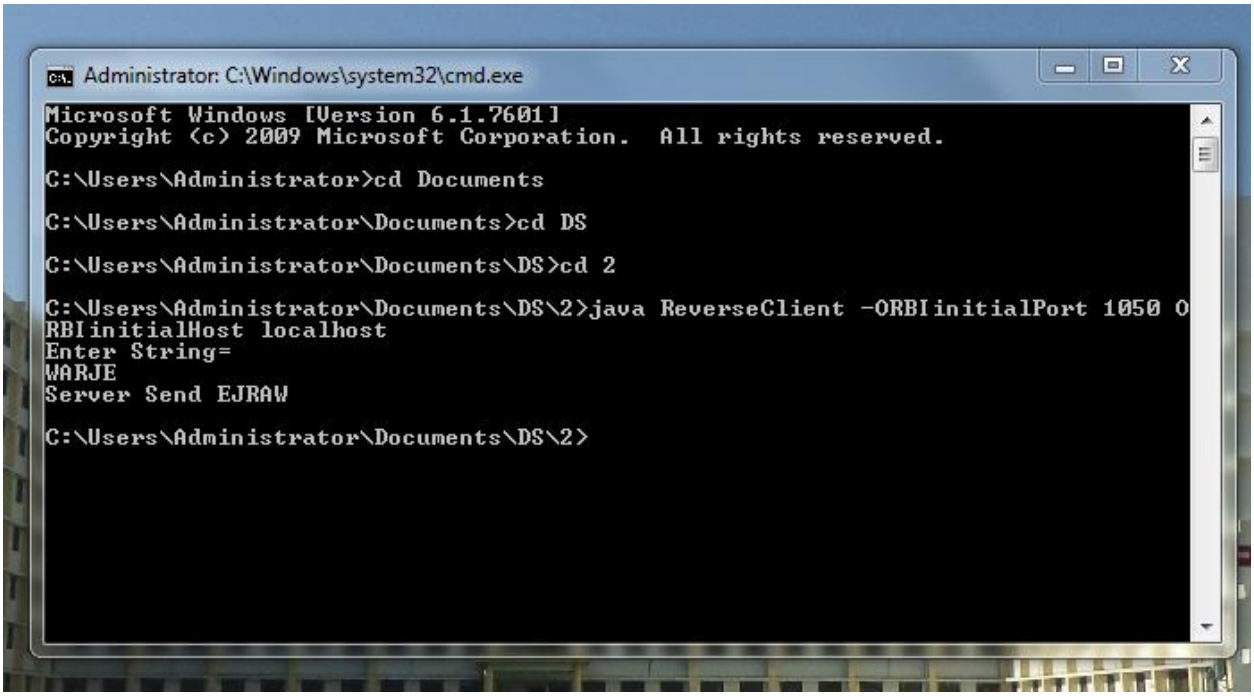
ReverseImpl.java

```
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));
    }
}
```

Output:


Administrator: C:\Windows\system32\cmd.exe - orbd -ORBInitialPort 1050
C:\Users\Administrator\Documents\DS\2>idlj -fall ReverseModule.idl
C:\Users\Administrator\Documents\DS\2>javac *.java ReverseModule/*.java
Note: ReverseModule\ReversePOA.java uses unchecked or unsafe operations.
Note: Recompile with -Xlint:unchecked for details.
C:\Users\Administrator\Documents\DS\2>orbd -ORBInitialPort 1050&


Administrator: C:\Windows\system32\cmd.exe - java ReverseServer -ORBInitialPort 1050
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.
C:\Users\Administrator>cd Documents
C:\Users\Administrator\Documents>cd DS
C:\Users\Administrator\Documents\DS>cd 2
C:\Users\Administrator\Documents\DS\2>java ReverseServer -ORBInitialPort 1050&
ORBInitialHost localhost&
Reverse Object Created
Reverse Server reading and waiting....


Administrator: C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
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C:\Users\Administrator>cd Documents
C:\Users\Administrator\Documents>cd DS
C:\Users\Administrator\Documents\DS>cd 2
C:\Users\Administrator\Documents\DS\2>java ReverseClient -ORBInitialPort 1050 O
RBInitialHost localhost
Enter String=
WARJE
Server Send EJRAW
C:\Users\Administrator\Documents\DS\2>