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CODE IMPLEMENTATION :

ReverseModule.idl (~/Distributed_Systems/Assignment2) - gedit

Open

ReverseModule.idl

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

ReverseImpl.java (~/Distributed_Systems/Assignment2) - gedit

Open

ReverseClient.java | 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));
  }
}
```

ReverseClient.java (~/Distributed_Systems/Assignment2) - gedit

Open

ReverseClient.java | ReverseImpl.java | ReverseModule.idl

```
//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 Strings=");
     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();
  }
}
}
```

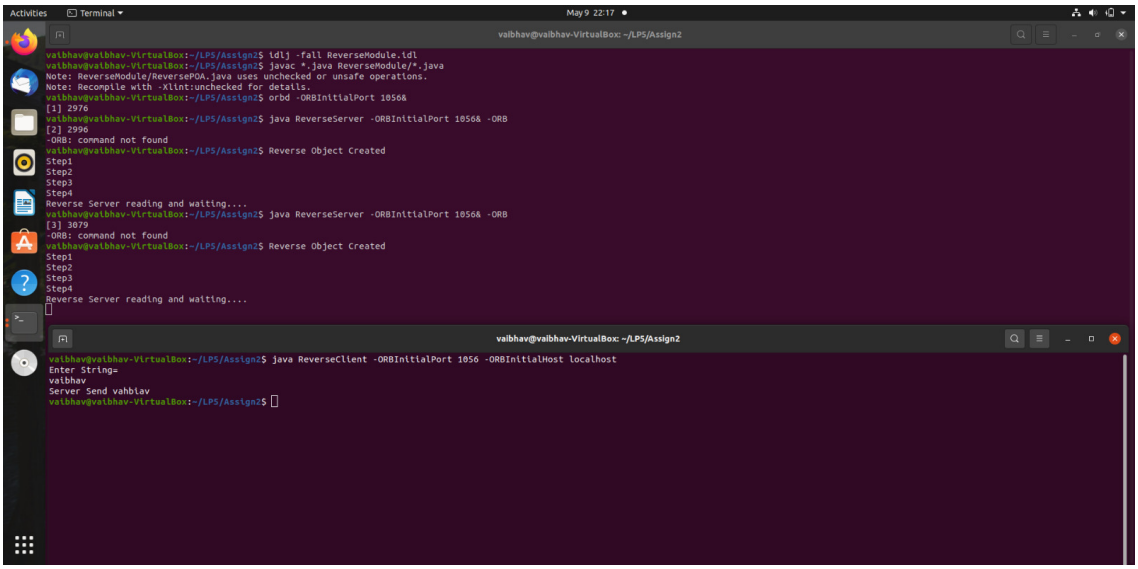
Java

*ReverseServer.java (~/Distributed_Systems/Assignment2) - gedit

Open

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

Java Tab Width: 8


Activities
Terminal
May 9 22:17
vaibhav@vaibhav-VirtualBox: ~/LP5/Assign2
vaibhav@vaibhav-VirtualBox:~/LP5/Assign2$ idlj -fall ReverseModule.idl
vaibhav@vaibhav-VirtualBox:~/LP5/Assign2$ javac *.java ReverseModule/*.java
Note: ReverseModule/ReversePOA.java uses unchecked or unsafe operations.
Note: Recompile with -Xlint:unchecked for details.
vaibhav@vaibhav-VirtualBox:~/LP5/Assign2$ orbd -ORBInitialPort 1056&
[1] 2976
vaibhav@vaibhav-VirtualBox:~/LP5/Assign2$ java ReverseServer -ORBInitialPort 1056& -ORB
[2] 2996
-ORB: command not found
vaibhav@vaibhav-VirtualBox:~/LP5/Assign2$ Reverse Object Created
Step1
Step2
Step3
Step4
Reverse Server reading and waiting....
vaibhav@vaibhav-VirtualBox:~/LP5/Assign2$ java ReverseServer -ORBInitialPort 1056& -ORB
[3] 3079
-ORB: command not found
vaibhav@vaibhav-VirtualBox:~/LP5/Assign2$ Reverse Object Created
Step1
Step2
Step3
Step4
Reverse Server reading and waiting....
vaibhav@vaibhav-VirtualBox: ~/LP5/Assign2
vaibhav@vaibhav-VirtualBox:~/LP5/Assign2$ java ReverseClient -ORBInitialPort 1056 -ORBInitialHost localhost
Enter String=
vaibhav
Server Send vahbiav
vaibhav@vaibhav-VirtualBox:~/LP5/Assign2$