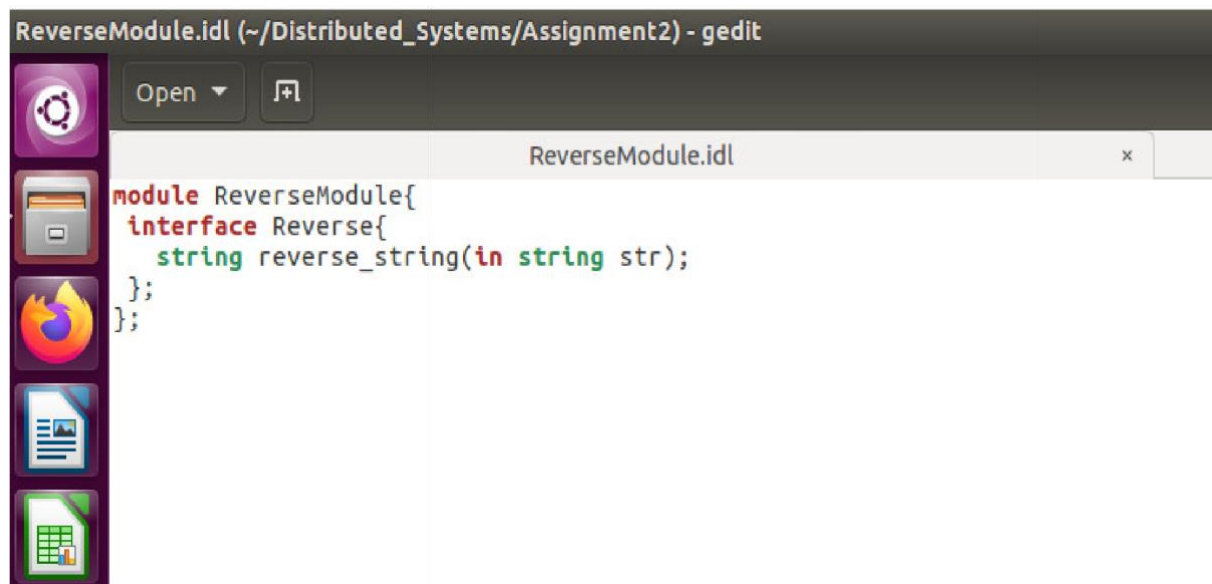
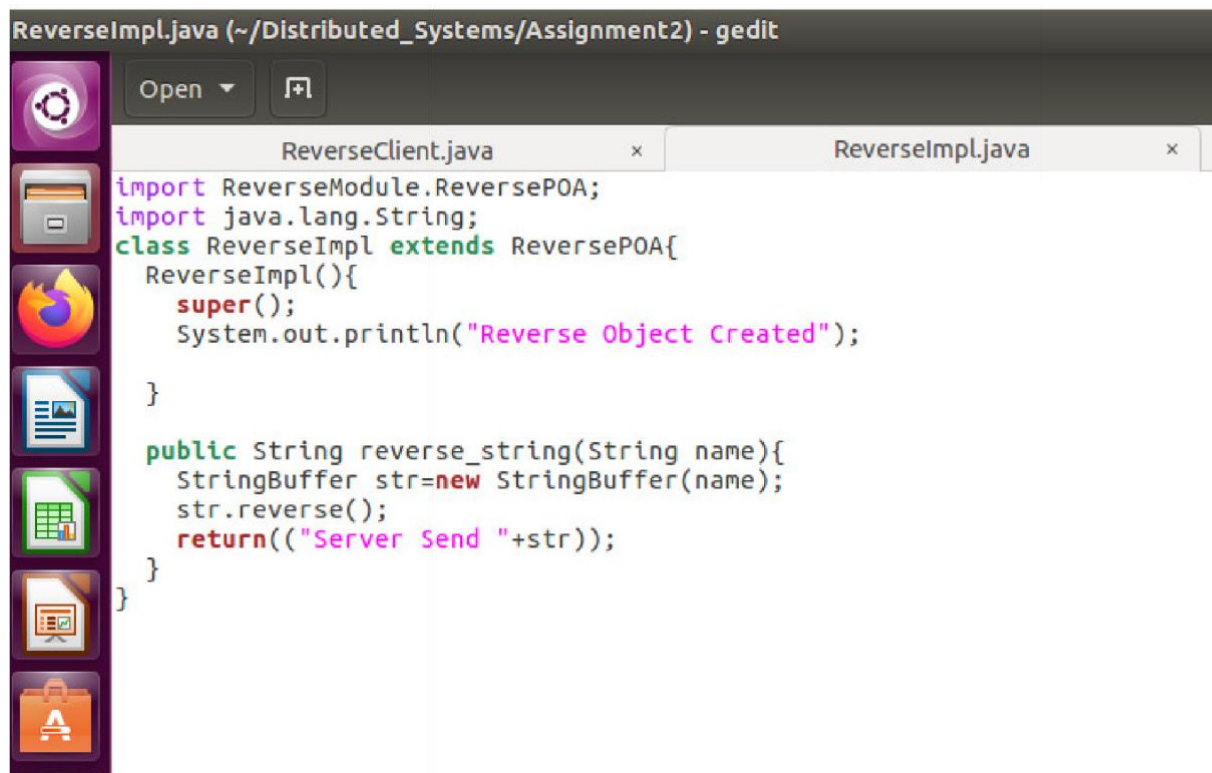


CODE IMPLEMENTATION :



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

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



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

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 [icon]

ReverseClient.java x ReverseImpl.java x 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

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

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Java ▾ Tab Width: 8

```
Activities Terminal May 9 22:17 valbhav@valbhav-VirtualBox: ~/LPS/Assign2

valbhav@valbhav-VirtualBox:~/LPS/Assign2$ idlj -fall ReverseModule.idl
valbhav@valbhav-VirtualBox:~/LPS/Assign2$ javac *.java ReverseModule/*.java
Note: ReverseModule/ReversePOA.java uses unchecked or unsafe operations.
Note: Recompile with -Xlint:unchecked for details.
valbhav@valbhav-VirtualBox:~/LPS/Assign2$ orbd -ORBInitialPort 10504
[1] 2976
valbhav@valbhav-VirtualBox:~/LPS/Assign2$ java ReverseServer -ORBInitialPort 10504 -ORB
[2] 2996
-ORB: command not found
valbhav@valbhav-VirtualBox:~/LPS/Assign2$ Reverse Object Created
Step1
Step2
Step3
Step4
Reverse Server reading and waiting....
valbhav@valbhav-VirtualBox:~/LPS/Assign2$ java ReverseServer -ORBInitialPort 10504 -ORB
[3] 3079
-ORB: command not found
valbhav@valbhav-VirtualBox:~/LPS/Assign2$ Reverse Object Created
Step1
Step2
Step3
Step4
Reverse Server reading and waiting....

valbhav@valbhav-VirtualBox:~/LPS/Assign2$ java ReverseClient -ORBInitialPort 10504 -ORBInitialHost localhost
Enter String=
valbhav
Server Send valbhav
valbhav@valbhav-VirtualBox:~/LPS/Assign2$
```