CODE:

ReverseServer.java

```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  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);
```

```java
            System.out.println("Reverse Server reading and waiting....");
            orb.run();
        }
        catch(Exception e)
        {
            e.printStackTrace();
        }
    }
}
```

ReverseClient.java

```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 object request broker
            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";

            // narrow converts generic object into string type
            ReverseImpl = ReverseHelper.narrow(ncRef.resolve_str(name));

            System.out.println("Enter String=");
            BufferedReader br = new BufferedReader(new
InputStreamReader(System.in));
```

```java
            String str= br.readLine();

            String tempStr= ReverseImpl.reverse_string(str);

            System.out.println(tempStr);
        }
        catch(Exception e)
        {
            e.printStackTrace();
        }
    }
}
```

ReverseImpl.java

```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:

```
● ● ●   ubuntu@ubuntu: ~/Desktop/Assignment2-307B044
ubuntu@ubuntu:~$ cd Desktop/Assignment2-307B044
ubuntu@ubuntu:~/Desktop/Assignment2-307B044$ java ReverseClient -ORBInitialPort
1050 -ORBInitialHost localhost
Enter String=
hello
Server Send olleh
ubuntu@ubuntu:~/Desktop/Assignment2-307B044$ java ReverseClient -ORBInitialPort
1050 -ORBInitialHost localhost
Enter String=
hello to you
Server Send uoy ot olleh
ubuntu@ubuntu:~/Desktop/Assignment2-307B044$ █
```

```
● ● ●   ubuntu@ubuntu: ~/Desktop/Assignment2-307B044
ubuntu@ubuntu:~$ cd Desktop/Assignment2-307B044
ubuntu@ubuntu:~/Desktop/Assignment2-307B044$ idlj -fall  ReverseModule.idl
ubuntu@ubuntu:~/Desktop/Assignment2-307B044$ javac *.java  ReverseModule/*.java
Note: ReverseModule/ReversePOA.java uses unchecked or unsafe operations.
Note: Recompile with -Xlint:unchecked for details.
ubuntu@ubuntu:~/Desktop/Assignment2-307B044$ orbd -ORBInitialPort 1050&
[1] 5134
ubuntu@ubuntu:~/Desktop/Assignment2-307B044$ java ReverseServer -ORBInitialPort
1050& -ORBInitialHost localhost&
[2] 5155
[3] 5156
ubuntu@ubuntu:~/Desktop/Assignment2-307B044$ Reverse Object Created
Step1
Step2
Step3
Step4
Reverse Server reading and waiting....
-ORBInitialHost: command not found
█
```