// StringToUpperCase.idl

module StringConversionApp {

interface StringToUpperCase {

string convert\_to\_uppercase(in string input);

};

};

Create the StringToUpperCaseServer.java file to implement the CORBA server that provides the string-to-uppercase service.

java

CopyEdit

import StringConversionApp.\*;

import org.omg.CORBA.\*;

import org.omg.PortableServer.\*;

public class StringToUpperCaseServer {

public static void main(String[] args) {

try {

// Initialize the ORB

ORB orb = ORB.init(args, null);

// Create and initialize the root POA

POA rootPOA = POAHelper.narrow(orb.resolve\_initial\_references("RootPOA"));

rootPOA.the\_POAManager().activate();

// Create the StringToUpperCase servant

StringToUpperCaseImpl stringToUpperCase = new StringToUpperCaseImpl();

// Activate the servant

stringToUpperCase.setORB(orb);

org.omg.CORBA.Object ref = rootPOA.servant\_to\_reference(stringToUpperCase);

StringToUpperCase href = StringToUpperCaseHelper.narrow(ref);

// Bind the object reference in the naming service

org.omg.CORBA.Object objRef = orb.resolve\_initial\_references("NameService");

NamingContextExt ncRef = NamingContextExtHelper.narrow(objRef);

// NameService Binding

NameComponent[] path = ncRef.to\_name("StringToUpperCase");

ncRef.rebind(path, href);

System.out.println("StringToUpperCase Server is ready...");

// Wait for invocations from clients

orb.run();

} catch (Exception e) {

e.printStackTrace();

}

}

}

class StringToUpperCaseImpl extends StringToUpperCasePOA {

private ORB orb;

// Set the ORB to use in the servant

public void setORB(ORB orb) {

this.orb = orb;

}

// Implement the convert\_to\_uppercase method

public String convert\_to\_uppercase(String input) {

return input.toUpperCase();

}

}

**4. Implement the Client**

Create the StringToUpperCaseClient.java file to implement the CORBA client that will invoke the convert\_to\_uppercase method on the server.

java

CopyEdit

import StringConversionApp.\*;

import org.omg.CORBA.\*;

import org.omg.CosNaming.\*;

import org.omg.CosNaming.NamingContextPackage.\*;

public class StringToUpperCaseClient {

public static void main(String[] args) {

try {

// Initialize the ORB

ORB orb = ORB.init(args, null);

// Resolve the object reference in the naming service

org.omg.CORBA.Object objRef = orb.resolve\_initial\_references("NameService");

NamingContextExt ncRef = NamingContextExtHelper.narrow(objRef);

// Resolve the name of the StringToUpperCase object

NameComponent[] path = ncRef.to\_name("StringToUpperCase");

StringToUpperCase stringToUpperCase = StringToUpperCaseHelper.narrow(ncRef.resolve(path));

// Call the convert\_to\_uppercase method

String inputString = "Hello, CORBA!";

String upperCaseString = stringToUpperCase.convert\_to\_uppercase(inputString);

System.out.println("Original String: " + inputString);

System.out.println("Uppercase String: " + upperCaseString);

} catch (Exception e) {

e.printStackTrace();

}

}

}

idlj -fall ReverseModule.idl

javac \*.java ReverseModule/\*.java

orbd -ORBInitialPort 1056&

java ReverseServer -ORBInitialPort 1056&

Terminal 2:

java ReverseClient -ORBInitialPort 1056 -ORBInitialHost localhost