**AIM -** To Develop any distributed application using CORBA to demonstrate object brokering.

(Calculator or String operations).

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**Calculator.idl**

module CalculatorApp {

interface Calculator {

float add(in float num1, in float num2);

float subtract(in float num1, in float num2);

float multiply(in float num1, in float num2);

float divide(in float num1, in float num2);

};

};

**CalculatorServer.java**

import CalculatorApp.\*;

import org.omg.CORBA.\*;

import org.omg.CosNaming.\*;

import org.omg.PortableServer.\*;

import org.omg.PortableServer.POA;

public class CalculatorServer {

public static void main(String args[]) {

try {

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

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

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

CalculatorImpl calculatorImpl = new CalculatorImpl();

org.omg.CORBA.Object ref = rootpoa.servant\_to\_reference(calculatorImpl);

Calculator href = CalculatorHelper.narrow(ref);

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

NamingContextExt ncRef = NamingContextExtHelper.narrow(objRef);

String name = "Calculator";

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

ncRef.rebind(path, href);

System.out.println("Calculator Server ready...");

orb.run();

} catch(Exception e) {

System.err.println("ERROR: " + e);

e.printStackTrace(System.out);

}

}

}

class CalculatorImpl extends CalculatorPOA {

private ORB orb;

public void setORB(ORB orb\_val) {

orb = orb\_val;

}

public float add(float num1, float num2) {

return num1 + num2;

}

public float subtract(float num1, float num2) {

return num1 - num2;

}

public float multiply(float num1, float num2) {

return num1 \* num2;

}

public float divide(float num1, float num2) {

return num1 / num2;

}

public void shutdown() {

orb.shutdown(false);

}

}

**CalculatorClient.java**

import CalculatorApp.\*;

import org.omg.CORBA.\*;

import org.omg.CosNaming.\*;

import java.util.\*;

public class CalculatorClient {

public static void main(String args[]) {

try {

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

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

NamingContextExt ncRef = NamingContextExtHelper.narrow(objRef);

String name = "Calculator";

Calculator calculator = CalculatorHelper.narrow(ncRef.resolve\_str(name));

float a;

float b;

int ch;

Scanner in = new Scanner(System.in);

System.out.println("1.Addition");

System.out.println("2.Subtraction");

System.out.println("3.Multiplication");

System.out.println("4.Division");

System.out.println("5.Exit");

do

{

System.out.print("Enter your choice : ");

ch = in.nextInt();

switch(ch)

{

case 1:

System.out.println("Enter first number : ");

a = in.nextFloat();

System.out.println("Enter second number : ");

b = in.nextFloat();

System.out.println("Addition: " + calculator.add(a, b));

break;

case 2:

System.out.println("Enter first number : ");

a = in.nextFloat();

System.out.println("Enter second number : ");

b = in.nextFloat();

System.out.println("Subtraction: " + calculator.subtract(a, b));

break;

case 3:

System.out.println("Enter first number : ");

a = in.nextFloat();

System.out.println("Enter second number : ");

b = in.nextFloat();

System.out.println("Multiplication: " + calculator.multiply(a, b));

break;

case 4:

System.out.println("Enter first number : ");

a = in.nextFloat();

System.out.println("Enter second number : ");

b = in.nextFloat();

System.out.println("Division: " + calculator.divide(a, b));

break;

case 5:

break;

}

}while(ch<=5);

} catch(Exception e) {

System.err.println("ERROR: " + e);

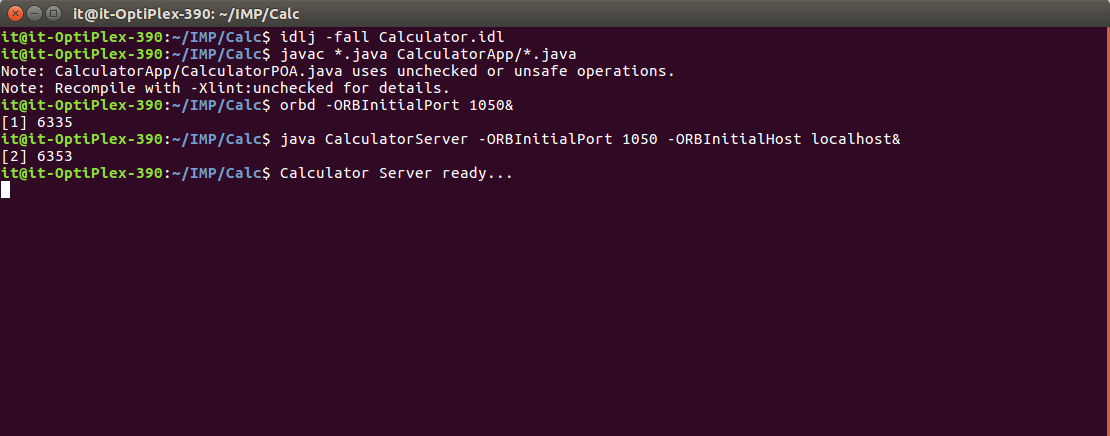
e.printStackTrace(System.out);

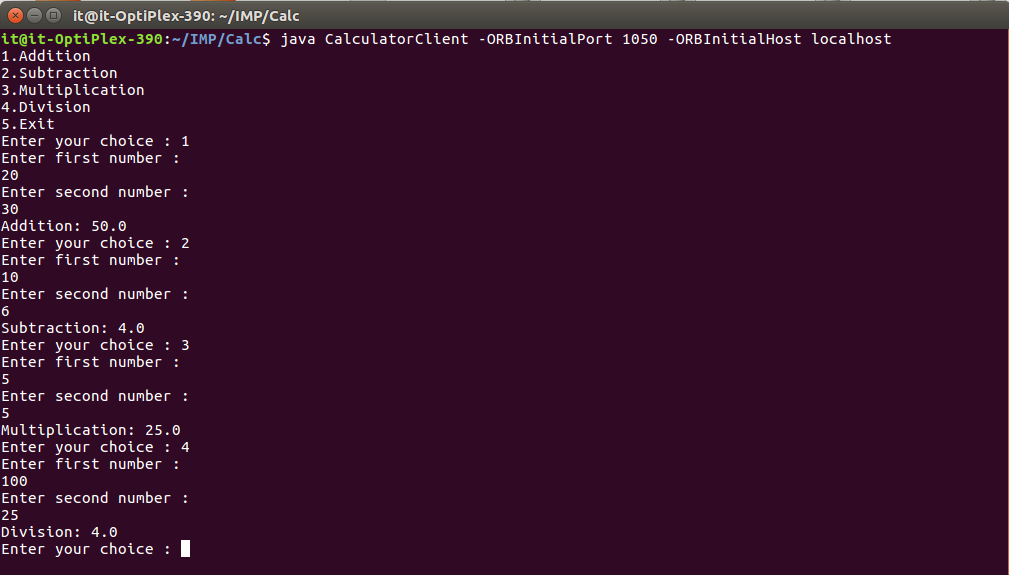
}

}

}

**Output –**

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