**LAB-9**

**Aim – To study Client Server based program using RPC.**

**Server.java**

import java.io.\*;

import java.net.\*;

public class Server {

public static void main(String[] args) throws Exception {

ServerSocket sersock = new ServerSocket(3000);

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

Socket sock = sersock.accept();

BufferedReader keyRead = new BufferedReader(new InputStreamReader(System.in));

OutputStream ostream = sock.getOutputStream();

PrintWriter pwrite = new PrintWriter(ostream, true);

InputStream istream = sock.getInputStream();

BufferedReader receiveRead = new BufferedReader(new InputStreamReader(istream));

String receiveMessage, sendMessage, fun;

int a, b, c;

while (true) {

fun = receiveRead.readLine();

if (fun != null)

System.out.println("Operation: " + fun);

a = Integer.parseInt(receiveRead.readLine());

System.out.println("Parameter 1: " + a);

b = Integer.parseInt(receiveRead.readLine());

if (fun.compareTo("add") == 0) {

c = a + b;

System.out.println("Addition = " + c);

pwrite.println("Addition = " + c);

}

if (fun.compareTo("sub") == 0) {

c = a - b;

System.out.println("Subtraction = " + c);

pwrite.println("Subtraction = " + c);

}

if (fun.compareTo("mul") == 0) {

c = a \* b;

System.out.println("Multiplication = " + c);

pwrite.println("Multiplication = " + c);

}

if (fun.compareTo("div") == 0) {

c = a / b;

System.out.println("Division = " + c);

pwrite.println("Division = " + c);

}

System.out.flush();

}

}

}

**Client.java**

import java.io.\*;

import java.net.\*;

public class Main {

public static void main(String[] args) throws Exception {

Socket sock = new Socket("127.0.0.1", 3000);

BufferedReader keyRead = new BufferedReader(new InputStreamReader(System.in));

OutputStream ostream = sock.getOutputStream();

PrintWriter pwrite = new PrintWriter(ostream, true);

InputStream istream = sock.getInputStream();

BufferedReader receiveRead = new BufferedReader(new InputStreamReader(istream));

System.out.println("Client ready, type and press Enter key");

String receiveMessage, sendMessage, temp;

while (true) {

System.out.println("\nEnter operation to perform(add, sub, mul, div)... ");

temp = keyRead.readLine();

sendMessage = temp.toLowerCase();

pwrite.println(sendMessage);

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

sendMessage = keyRead.readLine();

pwrite.println(sendMessage);

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

sendMessage = keyRead.readLine();

pwrite.println(sendMessage);

System.out.flush();

if ((receiveMessage = receiveRead.readLine()) != null) {

System.out.println(receiveMessage);

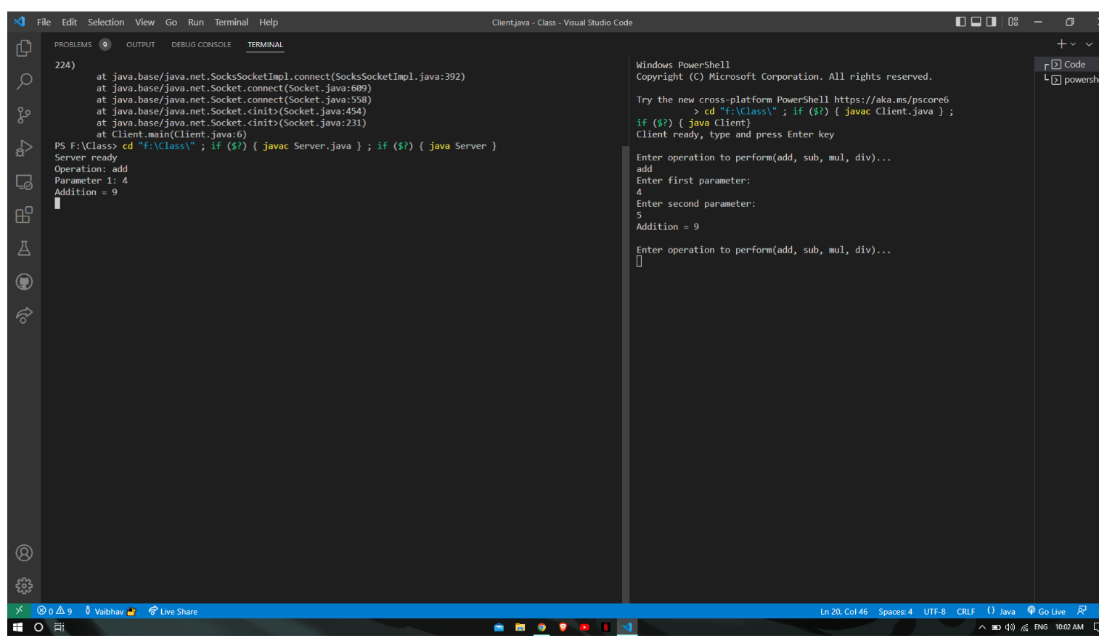
}

}

}

}

**OUTPUT**

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