DC Expt-2:

**Program:** IPCServer.java

import java.io.DataInputStream;

import java.io.DataOutputStream;

import java.net.ServerSocket;

import java.net.Socket;

public class IPCServer {

    public static void main(String args[]) {

        System.out.println("\n \*\*\*\* INTERPROCESS COMMUNICATION By Moin MN (211P030)\*\*\*\*\n");

        System.out.println("\n \*\*\*\* SERVER PROCESS STARTED \*\*\*\*\n");

        System.out.println("\n \*\*\*\* SERVER IS READY AND WAITING TO RECEIVE DATA FROM CLIENT PROCESS ON PORT\*\*\*\*" + 1200);

        try {

            ServerSocket ss = new ServerSocket(1200); //1200 is port number

            Socket clientSocket = ss.accept();

            System.out.println("\n \*\*\*\* Client is connected with IP address\*\*\*\*" + clientSocket.getInetAddress() + "and port Number" + clientSocket.getPort());

            DataOutputStream dos = new DataOutputStream(clientSocket.getOutputStream());

            DataInputStream dis = new DataInputStream(clientSocket.getInputStream());

            int a = dis.readInt();

            System.out.println("\n SERVER RECEIVED");

            System.out.println("\n NUMBER 1 =====>" + a);

            int b = dis.readInt();

            System.out.println("\n NUMBER 2====>" + b);

            int c = a + b;

            dos.writeInt(c);

            System.out.println("\n SERVER PROCESS HAS EXECUTED REQUESTED PROCESS AND SENT RESULT " + c + " TO THE CLIENT\n");

            clientSocket.close();

            System.out.println("\n SERVER PROCESS EXITING....................");

            ss.close();

        } catch (Exception e) {

            System.out.println("Exception: " + e);

        }

    }

}

**Program:** IPClient.java

import java.io.BufferedReader;

import java.io.DataInputStream;

import java.io.DataOutputStream;

import java.io.InputStreamReader;

import java.net.Socket;

public class IPCClient {

    public static void main(String args[]) {

        try {

            Socket s = new Socket("localhost", 1200);

            DataOutputStream dos = new DataOutputStream(s.getOutputStream());

            DataInputStream dis = new DataInputStream(s.getInputStream());

            InputStreamReader isr = new InputStreamReader(System.in);

            System.out.println("\n \t\*\*\*\*\*\*\*\*\*\*\*\* CLIENT By Moin MN (211P030)\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

            System.out.println("\n \t\*\*\*\*\*\*\*\*\*\*\*\* CLIENT PROCESS STARTED\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

            System.out.println(

                    "\n \*\*\*\*\*PLEASE ENTER THE VALUES OF NUMBER 1 AND NUMBER 2 TO PASS THEM TO SERVER PROCESS\*\*\*\*\*\*\*\*\*\*\n");

            BufferedReader br = new BufferedReader(isr);

            int a = Integer.parseInt(br.readLine());

            System.out.println("Number 1===>" + a);

            dos.writeInt(+a);

            int b = Integer.parseInt(br.readLine());

            System.out.println("Number 2=====>" + b);

            dos.writeInt(+b);

            int result = dis.readInt();

            System.out.println(

                    "\n.......................CLIENT PROCESS HAS RECEIVED RESULT FROM SERVER..................\n");

            System.out.println("\n THE ADDITION OF " + a + " & " + b + " = " + result);

            s.close();

        } catch (Exception e) {

            System.out.println("Exception is " + e);

        }

    }

}

Output:



