Lab Number:	1
Student Name:	**Pooja Jagdish Verma**
Roll No :	21

Title:

To Add Two Numbers, Print Number Entered by User, Swap Two Numbers, Check Whether Number is Even or Odd

1.1 Implement using C++

1.2 Implement using Java

Learning Objective:

- Students will be able to write C++ and java program for simple arithmetic operations and take input from user.

Learning Outcome:

- Ability to execute a simple C++ and Java program with and without any inputs to the program.
- Understanding the constructs in C++ and Java.

Course Outcome:

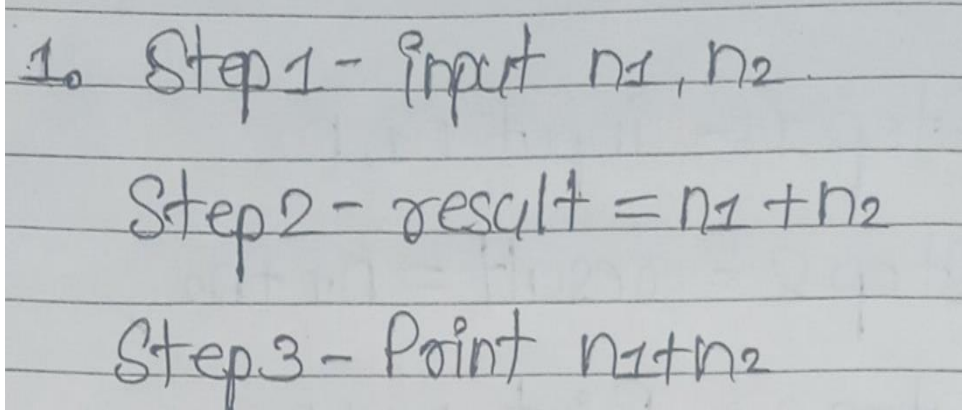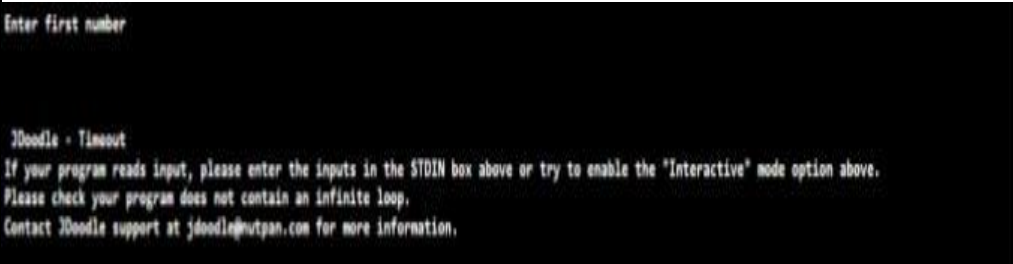| ECL304.1	Understand object-oriented programming concepts and implement using C++ and Java

Theory:

Difference between procedural and object oriented language
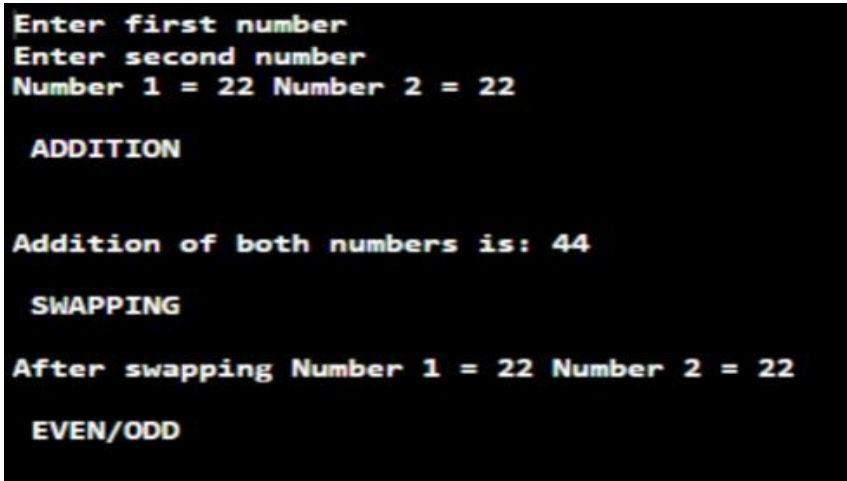
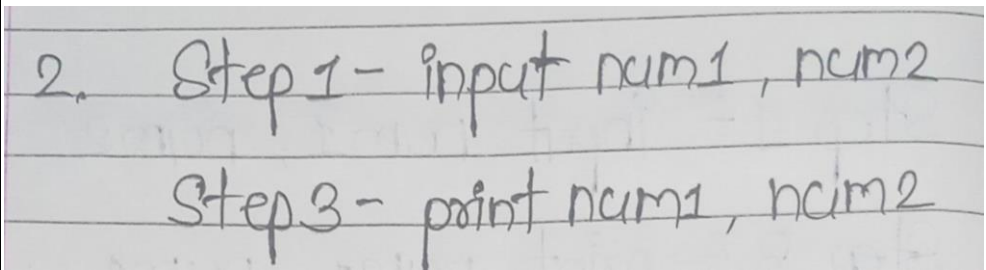**Application of object orientation**

Brief introduction to C++ and Java

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Java Programming

1. **To add two numbers**

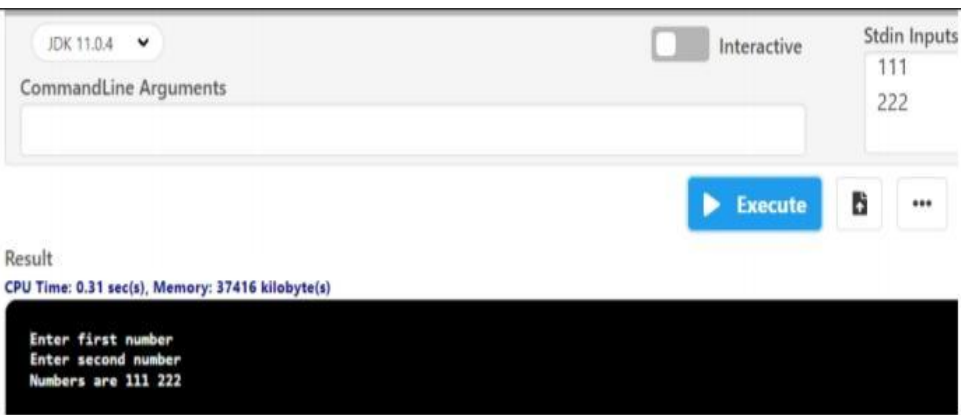| Algorithm:	

Program:	// To add two numbers
	
	import java.util.Scanner;
	
	public class MyClass {
	
	 public static void main(String args[]) {
	
	 int x=10;
	
	 int y=25;
	
	 int z=x+y;
	
	 System.out.println("Sum of x+y = " + z);
	
	 }
	
	}

Input given:	

Output Screenshot :	```
	Enter first number
	Enter second number
	Number 1 = 22 Number 2 = 22
	ADDITION
	Addition of both numbers is: 44
	SWAPPING
	After swapping Number 1 = 22 Number 2 = 22
	EVEN/ODD

2. **To print numbers entered by the user**

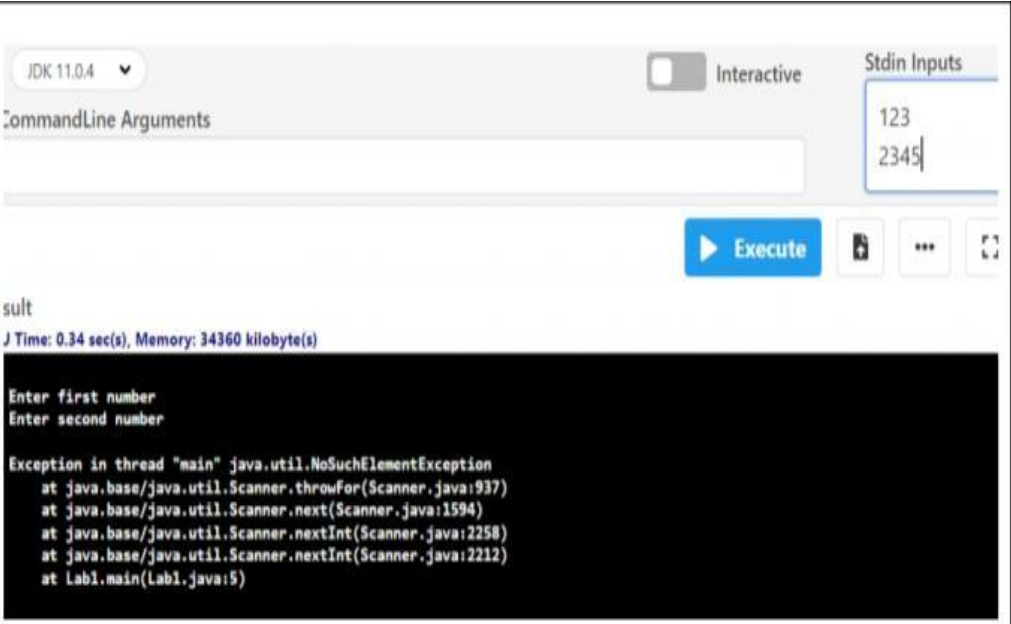| Algorithm:	2. Step 1 - input num1, num2 Step 3 - print num1, num2

Program :	// To print numbers entered by the user
	
	import java.util.Scanner;
	
	public class Lab1 {
	
	public static void main(String[] args) { Scanner sc = new Scanner(System.in); int
	
	n1,n2,temp;
	
	System.out.println("Enter first number"); n1=sc.nextInt();
	
	System.out.println("Enter second number"); n2=sc.nextInt();
	
	System.out.println("Numbers are "+n1 +" " + n2);
	
	}

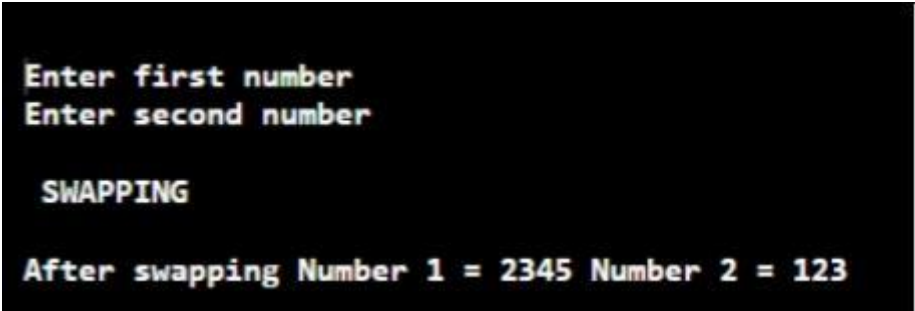|	
	}

Input given:	Enter first number
	Enter second number
	
	Exception in thread "main" java.util.NoSuchElementException
	    at java.base/java.util.Scanner.throwFor(Scanner.java:937)
	    at java.base/java.util.Scanner.next(Scanner.java:1594)
	    at java.base/java.util.Scanner.nextInt(Scanner.java:2258)
	    at java.base/java.util.Scanner.nextInt(Scanner.java:2212)
	    at Lab1.main(Lab1.java:4)

Output Screenshot:	JDK 11.0.4 Interactive Stdin Inputs CommandLine Arguments 111 222 ▶ Execute Result CPU Time: 0.31 sec(s), Memory: 37416 kilobyte(s) Enter first number Enter second number Numbers are 111 222

3.To swap two numbers

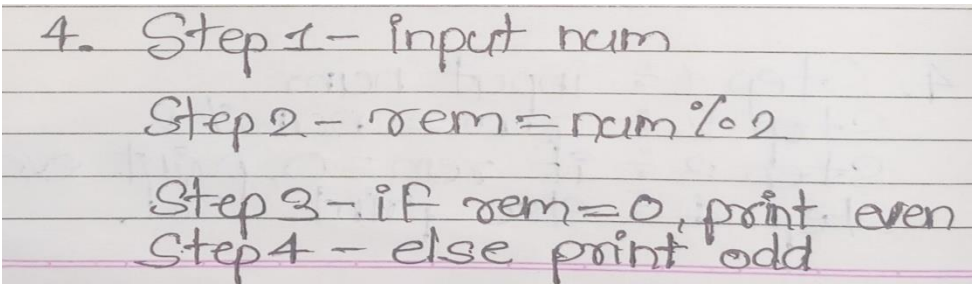|	

Algorithm :	3. Step 1 — Input a,b,c
	    Step 2 — a=b
	    Step 3 — b=c
	    Step 4 — c=a
	    Step 5 — print a,b

Program :	//to swap two numbers
	
	import java.util.Scanner; public class Lab1 {

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	public static void main(String[] args) { Scanner sc = new Scanner(System.in); int
	
	n1,n2,temp;
	
	System.out.println("Enter first number"); n1=sc.nextInt();
	
	System.out.println("Enter second number"); n2=sc.nextInt();
	
	System.out.println("\n SWAPPING\n"); temp=n1;
	
	n1=n2; n2=temp;
	
	System.out.println("After swapping Number 1 = "+n1+" Number 2 = "+n2);
	
	}
	
	}

Input given :	

Output Screenshot :	
	Enter first number Enter second number SWAPPING After swapping Number 1 = 2345 Number 2 = 123

4. TO CHECK WHETHER NUMBER IS EVEN OR ODD

Algorithm :	4. Step 1- Input num Step 2- rem = num % 2 Step 3- if rem = 0, print even Step 4 - else print odd

Program :	`// TO CHECK WHETHER NUMBER IS EVEN OR ODD`
	
	`import java.util.Scanner;`
	
	`public class EvenOdd {`
	
	`public static void main(String[] args) {`
	
	`Scanner reader = new Scanner(System.in);`
	
	`System.out.print("Enter a number: ");`
	
	`int num = reader.nextInt();`
	
	`if(num % 2 == 0)`
	
	`System.out.println(num + " is even");`
	
	`else`
	
	`System.out.println(num + " is odd");`
	
	`        }`

	}
Input given :	Enter a number: JDoodle - Timeout If your program reads input, please enter the inputs in the STDIN box above or try to enable the "Interactive" mode option above. Please check your program does not contain an infinite loop.
Output Screenshot :	Enter a number: 99 is odd

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