**PRACTICAL – 4(6)**

**Aim:** **Write a java that implements an interface AdvancedArithmetic which contains a method signature int divisor\_sum(int n). You need to write a class**

**Called MyCalculator which implements the interface. divisorSum function just takes an integer as input and return the sum of all its divisors. For example divisors of 6 are 1, 2, 3 and 6, so divisor sum should return 12. The value of n will be at most 1000.**

**SOURCE CODE:**

import java.util.Scanner;

interface AdvancedArithmetic {

*int* divisorSum(*int* *n*);

}

class MyCalculator implements *AdvancedArithmetic* {

    public *int* divisorSum(*int* *n*) {

        if (n <= 1) {

            return n;

        }

*int* res = n + 1;

        for (*int* i = 2; i < n; i++) {

            if (n % i == 0) {

                res += i;

            }

        }

        return res;

    }

}

class Practical\_4\_6 {

    public static *void* main(*String* *args*[]) {

*int* m;

*Scanner* sc = new Scanner(System.in);

        System.out.println("Enter an integer: ");

        m = sc.nextInt();

*AdvancedArithmetic* a1 = new MyCalculator();

        System.out.print("Sum of divisors of " + m + " : ");

        System.out.println(a1.divisorSum(m));

        System.out.println("\n20DCE019-Yatharth Chauhan");

        sc.close();

    }

}

**OUTPUT:**

**Text

Description automatically generated**

**CONCLUSION:** In this practical we learnt Concept of interface.