

Rajalakshmi Engineering College

Name: roshini S

Email: 240701442@rajalakshmi.edu.in

Roll no: 2116240701442

Phone: 6383640020

Branch: REC

Department: CSE - Section 10

Batch: 2028

Degree: B.E - CSE

Scan to verify results



2024_28_III_OOPS Using Java Lab

2028_REC_OOPS using Java_Week 2_Q5

Attempt : 1

Total Mark : 10

Marks Obtained : 10

Section 1 : Coding

1. Problem Statement

Ted, the computer science enthusiast, has accepted the challenge of writing a program that checks if the number of digits in an integer matches the sum of its digits.

Guide Ted in designing and writing the code to solve this problem using a 'do-while' loop.

Input Format

The input consists of an integer N, representing the number to be checked.

Output Format

If the sum is equal to the number of digits, print "The number of digits in N matches the sum of its digits."

Else, print "The number of digits in N does not match the sum of its digits."

Refer to the sample output for formatting specifications.

Sample Test Case

Input: 20

Output: The number of digits in 20 matches the sum of its digits.

Answer

```
import java.util.Scanner;
class digits{
    public static void main(String args[]){
        Scanner sc= new Scanner(System.in);
        int n =sc.nextInt();
        int d;
        int num=n;
        int sum=0;
        int count=0;
        do {
            d = n % 10;    // Get last digit
            sum += d;      // Add digit to sum
            count++;       // Increase digit count
            n /= 10;        // Remove last digit
        } while (n > 0);
        if(sum==count){
            System.out.print("The number of digits in "+num+ " matches the sum of
its digits.");
        }else{
            System.out.println("The number of digits in " +num+ " does not match the
sum of its digits.");
        }
    }
}

/*
import java.util.Scanner;
```

```
public class DigitSumChecker {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);

        int N = sc.nextInt(); // Read the number
        int original = N; // Store original number for later comparison

        int digitCount = 0;
        int digitSum = 0;

        // Use do-while loop to calculate digit count and sum
        do {
            int digit = N % 10; // Get last digit
            digitSum += digit; // Add digit to sum
            digitCount++; // Increase digit count
            N /= 10; // Remove last digit
        } while (N > 0);

        // Check if digit count matches digit sum
        if (digitCount == digitSum) {
            System.out.println("The number of digits in " + original + " matches the
sum of its digits.");
        } else {
            System.out.println("The number of digits in " + original + " does not match
the sum of its digits.");
        }
        sc.close();
    }
}
```

Status : Correct

Marks : 10/10