Rajalakshmi Engineering College

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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

```java
// You are using Java
import java.util.Scanner;
class DigitSumChecker {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);

        // Read input
        int N = scanner.nextInt();
        int temp = N;
        int digitCount = 0;
        int digitSum = 0;

        // Use do-while loop to count digits and compute sum of digits
        do {
            int digit = temp % 10;
            digitSum += digit;
            digitCount++;
            temp /= 10;
        } while (temp > 0);

        // Check condition and print result
        if (digitCount == digitSum) {
            System.out.println("The number of digits in " + N + " matches the sum of
its digits.");
        } else {
            System.out.println("The number of digits in " + N + " does not match the
sum of its digits.");
        }
```

```
        scanner.close();
    }
}
```

Status : Correct   **Marks : 10/10**