

Rajalakshmi Engineering College

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2024_28_III_OOPS Using Java Lab

2028_REC_OOPS using Java_Week 2_Q8

Attempt : 1
Total Mark : 10
Marks Obtained : 10

Section 1 : Coding

1. Problem Statement

A bank generates secure codes using 3-digit numbers where each digit is unique, and the code must be divisible by 3. You are tasked with generating the first N such codes based on user input, ensuring the digits are unique and the number is divisible by 3.

Note: Use nested for loops to solve.

Input Format

The first line contains an integer N representing the number of valid codes to generate.

Output Format

The output prints N lines, each line contains a valid 3-digit code.

Refer to the sample output for formatting specifications.

Sample Test Case

Input: 5

Output: 102

105

108

120

123

Answer

```
import java.util.Scanner;
class Unique3DigitCodesDivisibleBy3 {
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int N = sc.nextInt();
        sc.close();

        int count = 0;

        for (int num = 100; num <= 999 && count < N; num++) {
            int d1 = num / 100;
            int d2 = (num / 10) % 10;
            int d3 = num % 10;

            if (d1 != d2 && d2 != d3 && d1 != d3) {
                if ((d1 + d2 + d3) % 3 == 0) {
                    System.out.println(num);
                    count++;
                }
            }
        }
    }
}
```

Status : Correct

Marks : 10/10