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 line,s 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 UniqueDivisibleBy3 {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);
        int N = scanner.nextInt();
        int count = 0;

        for (int i = 1; i <= 9; i++) {
            // Tens place
            for (int j = 0; j <= 9; j++) {
                // Ones place
                for (int k = 0; k <= 9; k++) {
                    // All digits must be unique
                    if (i != j && j != k && i != k) {
                        int num = i * 100 + j * 10 + k;

                        if (num % 3 == 0) {
                            System.out.println(num);
                            count++;

                            if (count == N) {
                                return;
                            }
                        }
                    }
                }
```

```
         }
       }
    }
}
```

Status : Correct

Marks : 10/10