Rajalakshmi Engineering College

Name: Lathika N
Email: 241801135@rajalakshmi.edu.in
Roll no: 241801135
Phone: 7349649372
Branch: REC
Department: AI & DS - Section 1
Batch: 2028
Degree: B.E - AI & DS

Scan to verify results

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;

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

        // Loop for hundreds digit (1 to 9)
        for (int d1 = 1; d1 <= 9; d1++) {
            // Loop for tens digit (0 to 9)
            for (int d2 = 0; d2 <= 9; d2++) {
                // Loop for units digit (0 to 9)
                for (int d3 = 0; d3 <= 9; d3++) {
                    // Ensure all digits are unique
                    if (d1 != d2 && d1 != d3 && d2 != d3) {
                        int number = d1 * 100 + d2 * 10 + d3;
                        if (number % 3 == 0) {
                            System.out.print(number + " ");
                            count++;
                            if (count == N) {
                                break;
                            }
                        }
                    }
                }
                if (count == N) {
```

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

    scanner.close();
  }
}
```

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