

# Rajalakshmi Engineering College

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Batch: 2028

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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**

```
// You are using Java
import java.util.Scanner;

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

        int count = 0;

        for (int a = 1; a <= 9 && count < N; a++) {
            for (int b = 0; b <= 9 && count < N; b++) {
                if (b == a) continue;
                for (int c = 0; c <= 9 && count < N; c++) {
                    if (c == a || c == b) continue;

                    int num = 100 * a + 10 * b + c;
                    if (num % 3 == 0) {
                        System.out.print(num + " ");
                        count++;
                    }
                }
                if (count == N) break;
            }
        }
    }
}
```

```
        System.out.println();
        sc.close();
    }
}
```

**Status : Correct**

**Marks : 10/10**