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

```java
import java.util.*;

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

        for(int i=1;i<=9;i++){
            for(int j=0;j<=9;j++){
                for(int k=0;k<=9;k++){
                    if(count<N){
                        if(i!=j && i!=k &&j!=k){
                            int number=i*100+j*10+k;
                            if(number%3==0)
                            {
                                System.out.println(number);
                                count++;
                            }
                        }
                    }
                }
            }
        }
    }
}
```