

Reflection Log

```
1 package Mastery;
2
3+ import java.util.ArrayList;
4
5
6
7 public class EvensAndOdds {
8-     public static void main(String[] args) {
9         // Create a Random object
10        Random random = new Random();
11    }
```

This code initializes a Java program within the Mastery package and imports the ArrayList class from the java.util package. The main method creates a Random object, which can be used to generate random numbers for further operations in the program.

```
        // Display even numbers
        System.out.print("EVEN: ");
        for (int num : evens) {
            System.out.print(num + " ");
        }
        System.out.println(); // Move to the next line

        // Display odd numbers
        System.out.print("ODD: ");
        for (int num : odds) {
            System.out.print(num + " ");
        }
    }
```

This code snippet displays the contents of two lists: one containing even numbers and the other containing odd numbers. The first for-each loop iterates through the evens list, printing each number on the same line after the label "EVEN:". Similarly, the second for-each loop iterates through the odds list, printing each number on the same line after the label "ODD:".

```
        // Lists to store even and odd numbers
        List<Integer> evens = new ArrayList<>();
        List<Integer> odds = new ArrayList<>();

        // Generate 25 random numbers between 0 and 99
        for (int i = 0; i < 25; i++) {
            int number = random.nextInt(100); // Generates a number between 0 and 99

            if (number % 2 == 0) {
                evens.add(number);
            } else {
                odds.add(number);
            }
        }
```

This snippet initializes two ArrayList objects, evens and odds, to store even and odd numbers, respectively. The program generates 25 random integers between 0 and 99 using a loop and

the Random object. Each generated number is checked using an if condition—if divisible by 2, it is added to the evens list; otherwise, it is added to the odds list.