

Credit
2120
Assignment
E1EvensAndOdds

Create a EvensAndOdds application that generates 25 random integers between 0 and 99 and then displays all the evens on one line and all the odds on the next line.

How has your program changed from planning to coding to now? Please explain?

```
1 package mastery;
2
3 import java.util.ArrayList;
4 import java.util.Random;
5
6 public class E1EvenAndOdds {
7     public static void main(String[] args) {
8         // Create a Random object to generate random integers
9         Random random = new Random();
10
11
12         // Create lists to hold even and odd numbers
13         ArrayList<Integer> evens = new ArrayList<>();
14         ArrayList<Integer> odds = new ArrayList<>();
15     }
```

Starting it off creating lists and importing functions

Created the number generator

```
E1MySavings.java E3LunchOrder.java E3LunchOrderTest.java StudentRoster.java *E1EvenAndOdds.java X
1 package mastery;
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4 import java.util.Random;
5
6 public class E1EvenAndOdds {
7     public static void main(String[] args) {
8         // Create a Random object to generate random integers
9         Random random = new Random();
10
11
12         // Create lists to hold even and odd numbers
13         ArrayList<Integer> evens = new ArrayList<>();
14         ArrayList<Integer> odds = new ArrayList<>();
15
16         // Generate 25 random integers between 0 and 99
17         for (int i = 0; i < 25; i++) {
18             int num = random.nextInt(100); // Generates a random number between 0 and 99
19             if (num % 2 == 0) { //tests if number is even or odd
20                 evens.add(num); // Add to evens if the number is even
21             } else {
22                 odds.add(num); // Add to odds if the number is odd
23             }
24         }
25     }
```

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20                 evens.add(num); // Add to evens if the number is even
21             } else {
22                 odds.add(num); // Add to odds if the number is odd
23             }
24         }
25
26         // Display all odd numbers
27         System.out.print("ODD: ");
28         for (int odd : odds) {
29             System.out.print(odd + " ");
30         }
31         System.out.println(); // Move to the next line
32     }
33 }
```

Displays odd numbers

Copy and change for evens

```
// Display all even numbers
System.out.print("EVEN: ");
for (int even : evens) {
    System.out.print(even + " ");
}
```

Final code

```

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24         }
25
26         // Display all odd numbers
27         System.out.print("ODD: ");
28         for (int odd : odds) {
29             System.out.print(odd + " ");
30         }
31         System.out.println(); // Move to the next line
32
33         // Display all even numbers
34         System.out.print("EVEN: ");
35         for (int even : evens) {
36             System.out.print(even + " ");
37         }
38     }
39 }
40

```