Assignment name: EvenAndOdds Mastery Project - Chapter 9

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Reflection Log

Created array and initialized how many numbers should be in both arrays combined (Shown below)

```
final int Numbers = 25;
int[] EvenAndNum = new int[Numbers]; // Create array to store numbers
```

Created variable to count amount of numbers in odd and even array and generates 25 random numbers (Shown below)

```
int Even = 0; // Variable to count amount of even numbers
int Odd = 0; // Variable to count amount of odd numbers
for (int i = 0; i<Numbers; i++) { // Generates 25 random numbers</pre>
```

Generates random numbers between 0 and 99 (Shown below)

```
EvenAndNum[i] = (int) (100 * Math.random() + 0); // Generates random number between 0 and 100
```

Goes through the array and counts amont of even and odd numbers (Shown below)

```
for (int i = 0; i<Numbers; i++) { // Goes through array and counts even and odd numbers
```

Computer checks if the numbers in the array are even or odd (Shown below)

```
if ( EvenAndNum[i] % 2 ==0) { // Checks if number is even
    Even ++;
}
else if ( EvenAndNum[i]%2==1) { // Checks if number is odd
    Odd ++;
}
```

Created an array for numbers that are even and numbers that are odd (Shown below)

```
int[] even = new int[Even]; // Create array for even numbers
int[] odd = new int[Odd]; // Create array for odd numbers
```

If the number is even, it will add it to the even array. If the number is odd, it will add it to the odd array. It checks if the number is even or odd by diving it by 2 and it is even or odd depending on the remainder (Shown below)

```
if (EvenAndNum[i]%2==0) { // If the number is even, add it to the even array
    even[evenindex] = EvenAndNum[i];
    evenindex ++;
}
else if (EvenAndNum[i]%2==1) { // If number is odd, add it to the odd array
    odd[oddindex] = EvenAndNum[i];
    oddindex ++;
```

Outputs even numbers (Shown below)

```
// Outputs even numbers
System.out.println("Even: ");
for (int i = 0; i<even.length; i++) {
    System.out.print(even[i] + " ");
}</pre>
```

Outputs odd numbers (Shown below)

```
// Outputs odd numbers
System.out.println(" ");
System.out.println("Odd: ");
for (int i = 0; i<odd.length; i++) {
    System.out.print(odd[i]+" ");</pre>
```