Problem 2595: Number of Even and Odd Bits

Problem Information

Difficulty: Easy
Acceptance Rate: 73.06%
Paid Only: No
Tags: Bit Manipulation

Problem Description

You are given a **positive** integer `n`.

Let `even` denote the number of even indices in the binary representation of `n` with value 1.

Let `odd` denote the number of odd indices in the binary representation of `n` with value 1.

Note that bits are indexed from **right to left** in the binary representation of a number.

Return the array `[even, odd]`.

Example 1:

Input: n = 50

Output: [1,2]

Explanation:

The binary representation of 50 is `110010`.

It contains 1 on indices 1, 4, and 5.

Example 2:

Input: n = 2

Output: [0,1]

Explanation:

The binary representation of 2 is `10`.

It contains 1 only on index 1.

Constraints:

* `1 <= n <= 1000`

Code Snippets

C++:

```
class Solution {
public:
vector<int> evenOddBit(int n) {

}
};
```

Java:

```
class Solution {
public int[] evenOddBit(int n) {

}
}
```

Python3:

```
class Solution:
def evenOddBit(self, n: int) -> List[int]:
```