605 Can Place Flowers (link)

Description

You have a long flowerbed in which some of the plots are planted, and some are not. However, flowers cannot be planted in **adjacent** plots.

Given an integer array `flowerbed` containing `0`'s and `1`'s, where `0` means empty and `1` means not empty, and an integer `n`, return `true` *if* `n` *new flowers can be planted in the* `flowerbed` *without violating the no-adjacent-flowers rule and* `false` *otherwise*.

Example 1:

```
Input: flowerbed = [1,0,0,0,1], n = 1
Output: true
```

Example 2:

```
Input: flowerbed = [1,0,0,0,1], n = 2
Output: false
```

Constraints:

- `1 <= flowerbed.length <= 2 * 10^4`
- `flowerbed[i]` is `0` or `1`.
- There are no two adjacent flowers in `flowerbed`.
- `0 <= n <= flowerbed.length`

(scroll down for solution)

Solution

Language: cpp

Status: Accepted

```cpp
#include <vector>
using namespace std;

class Solution {
public:
    bool canPlaceFlowers(vector<int>& flowerbed, int n) {
        int count = 0;
        int size = flowerbed.size();

        for (int i = 0; i < size; ++i) {
            if (flowerbed[i] == 0 &&
                (i == 0 || flowerbed[i-1] == 0) &&
                (i == size - 1 || flowerbed[i+1] == 0)) {
                flowerbed[i] = 1;
                count++;
            }

            if (count >= n) {
                return true;
            }
        }

        return count >= n;
    }
};
```