链滴

[每日 LeetCode] 605. Can Place Flowers

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原文链接：https://ld246.com/article/1551961736142

来源网站：链滴

Description:

Suppose 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 - they would compete for water and bo h would die.

Given a flowerbed (represented as an array containing 0 and 1, where 0 means empty and 1 eans not empty), and a number**n**, return if**n**new flowers can be planted in it without violating he no-adjacent-flowers rule.

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

Note:

1. The input array won't violate no-adjacent-flowers rule.
2. The input array size is in the range of [1, 20000].
3. **n**is a non-negative integer which won't exceed the input array size.

思路：**首先处理首位置和末位置的情况(默认首位的前面和末尾的后一位为0)。**然后遍历数组，如果个位置为0，就看其前面一个和后面一个位置的值，如果pre和next均为0，那么说明当前位置可以放，n自减1，并且当前位置的后一个位置一定不能放置，i++，最后看n是否小于等于0。

C++代码

```
class Solution {
public:
    bool canPlaceFlowers(vector<int>& flowerbed, int n) {
        flowerbed.insert(flowerbed.begin(),0);
        flowerbed.push_back(0);
        int i=1;
        while (i<flowerbed.size()-1)
        {
            if (flowerbed[i]==0 && flowerbed[i-1]==0 &&flowerbed[i+1]==0)
            {
                n--;
                //如果当前这个放置了，那么后面一个不用判断了，因为一定不能放置。
                i++;
            }
            i++;
        }
        return n<=0;
```

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```
    }
};
```

运行时间：20ms

运行内存：12M

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