Problem 2672: Number of Adjacent Elements With the Same Color

Problem Information

Difficulty: Medium
Acceptance Rate: 57.62%
Paid Only: No
Tags: Array

Problem Description

You are given an integer `n` representing an array `colors` of length `n` where all elements are set to 0's meaning **uncolored**. You are also given a 2D integer array `queries` where `queries[i] = [indexi, colori]`. For the `ith` **query** :

* Set `colors[indexi]` to `colori`. * Count the number of adjacent pairs in `colors` which have the same color (regardless of `colori`).

Return an array `answer` of the same length as `queries` where `answer[i]` is the answer to the `ith` query.

Example 1:

Input: n = 4, queries = [[0,2],[1,2],[3,1],[1,1],[2,1]]

Output: [0,1,1,0,2]

Explanation:

* Initially array colors = [0,0,0,0], where 0 denotes uncolored elements of the array. * After the 1st query colors = [2,0,0,0]. The count of adjacent pairs with the same color is 0. * After the 2nd query colors = [2,2,0,0]. The count of adjacent pairs with the same color is 1. * After the 3rd query colors = [2,2,0,1]. The count of adjacent pairs with the same color is 1. * After the 4th query colors = [2,1,0,1]. The count of adjacent pairs with the same color is 0. * After the 5th query colors = [2,1,1,1]. The count of adjacent pairs with the same color is 2.

Example 2:

Input: n = 1, queries = [[0,100000]]

Output: [0]

Explanation:

After the 1st query colors = [100000]. The count of adjacent pairs with the same color is 0.

Constraints:

* `1 <= n <= 105` * `1 <= queries.length <= 105` * `queries[i].length == 2` * `0 <= indexi <= n - 1` * `1 <= colori <= 105`

Code Snippets

C++:

```
class Solution {
public:
vector<int> colorTheArray(int n, vector<vector<int>>& queries) {

}
};
```

Java:

```
class Solution {
public int[] colorTheArray(int n, int[][] queries) {

}
}
```

Python3:

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