Problem 904: Fruit Into Baskets

Problem Information

Difficulty: Medium
Acceptance Rate: 49.90%
Paid Only: No
Tags: Array, Hash Table, Sliding Window

Problem Description

You are visiting a farm that has a single row of fruit trees arranged from left to right. The trees are represented by an integer array `fruits` where `fruits[i]` is the **type** of fruit the `ith` tree produces.

You want to collect as much fruit as possible. However, the owner has some strict rules that you must follow:

* You only have **two** baskets, and each basket can only hold a **single type** of fruit. There is no limit on the amount of fruit each basket can hold. * Starting from any tree of your choice, you must pick **exactly one fruit** from **every** tree (including the start tree) while moving to the right. The picked fruits must fit in one of your baskets. * Once you reach a tree with fruit that cannot fit in your baskets, you must stop.

Given the integer array `fruits`, return _the**maximum** number of fruits you can pick_.

Example 1:

Input: fruits = [_1,2,1_] **Output:** 3 **Explanation:** We can pick from all 3 trees.

Example 2:

Input: fruits = [0,_1,2,2_] **Output:** 3 **Explanation:** We can pick from trees [1,2,2]. If we had started at the first tree, we would only pick from trees [0,1].

Example 3:

Input: fruits = [1,_2,3,2,2_] **Output:** 4 **Explanation:** We can pick from trees [2,3,2,2]. If we had started at the first tree, we would only pick from trees [1,2].

Constraints:

* `1 <= fruits.length <= 105` * `0 <= fruits[i] < fruits.length`

Code Snippets

C++:

```
class Solution {
public:
int totalFruit(vector<int>& fruits) {

}
};
```

Java:

```
class Solution {
public int totalFruit(int[] fruits) {

}
}
```

Python3:

```
class Solution:
def totalFruit(self, fruits: List[int]) -> int:
```