Problem 992: Subarrays with K Different Integers

Problem Information

Difficulty: Hard
Acceptance Rate: 67.03%
Paid Only: No
Tags: Array, Hash Table, Sliding Window, Counting

Problem Description

Given an integer array `nums` and an integer `k`, return _the number of**good subarrays** of _`nums`.

A **good array** is an array where the number of different integers in that array is exactly `k`.

* For example, `[1,2,3,1,2]` has `3` different integers: `1`, `2`, and `3`.

A **subarray** is a **contiguous** part of an array.

Example 1:

Input: nums = [1,2,1,2,3], k = 2 **Output:** 7 **Explanation:** Subarrays formed with exactly 2 different integers: [1,2], [2,1], [1,2], [2,3], [1,2,1], [2,1,2], [1,2,1,2]

Example 2:

Input: nums = [1,2,1,3,4], k = 3 **Output:** 3 **Explanation:** Subarrays formed with exactly 3 different integers: [1,2,1,3], [2,1,3], [1,3,4].

Constraints:

* `1 <= nums.length <= 2 * 104` * `1 <= nums[i], k <= nums.length`

Code Snippets

C++:

```
class Solution {
public:
int subarraysWithKDistinct(vector<int>& nums, int k) {

}
};
```

Java:

```
class Solution {
public int subarraysWithKDistinct(int[] nums, int k) {

}
}
```

Python3:

```
class Solution:
def subarraysWithKDistinct(self, nums: List[int], k: int) -> int:
```