# 3092. Most Frequent IDs

Solved ●

Medium | 🏷 Topics | 🔒 | 💡 Hint

The problem involves tracking the frequency of IDs in a collection that changes over time. You have two integer arrays, `nums` and `freq`, of equal length `n`. Each element in `nums` represents an ID, and the corresponding element in `freq` indicates how many times that ID should be added to or removed from the collection at each step.

- **Addition of IDs:** If `freq[i]` is positive, it means `freq[i]` IDs with the value `nums[i]` are added to the collection at step `i`.

- **Removal of IDs:** If `freq[i]` is negative, it means `-freq[i]` IDs with the value `nums[i]` are removed from the collection at step `i`.

Return an array `ans` of length `n`, where `ans[i]` represents the **count** of the *most frequent ID* in the collection after the `i`th step. If the collection is empty at any step, `ans[i]` should be 0 for that step.

**Example 1:**

**Input:** nums = [2,3,2,1], freq = [3,2,-3,1]

**Output:** [3,3,2,2]

**Explanation:**

After step 0, we have 3 IDs with the value of 2. So `ans[0] = 3`.
After step 1, we have 3 IDs with the value of 2 and 2 IDs with the value of 3. So `ans[1] = 3`.
After step 2, we have 2 IDs with the value of 3. So `ans[2] = 2`.
After step 3, we have 2 IDs with the value of 3 and 1 ID with the value of 1. So `ans[3] = 2`.

**Example 2:**

**Input:** nums = [5,5,3], freq = [2,-2,1]

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

**Explanation:**

After step 0, we have 2 IDs with the value of 5. So `ans[0] = 2`.
After step 1, there are no IDs. So `ans[1] = 0`.
After step 2, we have 1 ID with the value of 3. So `ans[2] = 1`.

**Constraints:**

- `1 <= nums.length == freq.length <= 10^5`
- `1 <= nums[i] <= 10^5`
- `-10^5 <= freq[i] <= 10^5`
- `freq[i] != 0`
- The input is generated such that the occurrences of an ID will not be negative in any step.

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Seen this question in a real interview before?    1/5

Yes      No

**Accepted** 24,225/57.3K  |  **Acceptance Rate** 42.3%

| Topics | ⌄ |
|---|---|
| 🔒 | ⌄ |
| Hint 1 | ⌄ |
| Hint 2 | ⌄ |
| Hint 3 | ⌄ |
| Discussion (30) | ⌄ |