2340. Minimum Adjacent Swaps to Make a Valid Array Premium

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You are given a **0-indexed** integer array `nums`.

Swaps of **adjacent** elements are able to be performed on `nums`.

A **valid** array meets the following conditions:

- The largest element (any of the largest elements if there are multiple) is at the rightmost position in the array.
- The smallest element (any of the smallest elements if there are multiple) is at the leftmost position in the array.

Return *the **minimum** swaps required to make* `nums` *a valid array.*

Example 1:

```
Input: nums = [3,4,5,5,3,1]
Output: 6
Explanation: Perform the following swaps:
- Swap 1: Swap the 3rd and 4th elements, nums is then [3,4,5,3,5,1].
- Swap 2: Swap the 4th and 5th elements, nums is then [3,4,5,3,1,5].
- Swap 3: Swap the 3rd and 4th elements, nums is then [3,4,5,1,3,5].
- Swap 4: Swap the 2nd and 3rd elements, nums is then [3,4,1,5,3,5].
- Swap 5: Swap the 1st and 2nd elements, nums is then [3,1,4,5,3,5].
- Swap 6: Swap the 0th and 1st elements, nums is then [1,3,4,5,3,5].
It can be shown that 6 swaps is the minimum swaps required to make a valid array.
```

Example 2:

```
Input: nums = [9]
Output: 0
Explanation: The array is already valid, so we return 0.
```

Constraints:

- `1 <= nums.length <= 10^5`
- `1 <= nums[i] <= 10^5`

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

Yes No

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Hint 1

Notice that in order to obtain the minimum swaps, we should focus on the smallest element that is the leftmost and the largest element that is the rightmost.

Hint 2

We can take those elements and greedily only do swaps that bring them closer to their respective end positions.

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