# 2164. Sort Even and Odd Indices Independently

# Description

You are given a **0-indexed** integer array nums. Rearrange the values of nums according to the following rules:

- 1. Sort the values at **odd indices** of nums in **non-increasing** order.
  - For example, if nums = [4, 1, 2, 3] before this step, it becomes [4, 3, 2, 1] after. The values at odd indices 1 and 3 are sorted in non-increasing order.
- 2. Sort the values at **even indices** of nums in **non-decreasing** order.
  - For example, if nums = [ 4,1, 2,3] before this step, it becomes [ 2,1, 4,3] after. The values at even indices 0 and 2 are sorted in non-decreasing order.

Return the array formed after rearranging the values of nums.

#### **Example 1:**

```
Input: nums = [4,1,2,3]
Output: [2,3,4,1]
Explanation:
First, we sort the values present at odd indices (1 and 3) in non-increasing order.
So, nums changes from [4, 1,2, 3] to [4, 3,2, 1].
Next, we sort the values present at even indices (0 and 2) in non-decreasing order.
So, nums changes from [4,1,2,3] to [2,3,4,1].
Thus, the array formed after rearranging the values is [2,3,4,1].
```

## Example 2:

```
Input: nums = [2,1]
Output: [2,1]
Explanation:
Since there is exactly one odd index and one even index, no rearrangement of values takes place.
The resultant array formed is [2,1], which is the same as the initial array.
```

## **Constraints:**

- 1 <= nums.length <= 100
- 1 <= nums[i] <= 100