

2200. Find All K-Distant Indices in an Array

Description

You are given a **0-indexed** integer array `nums` and two integers `key` and `k`. A **k-distant index** is an index `i` of `nums` for which there exists at least one index `j` such that $|i - j| \leq k$ and `nums[j] == key`.

Return *a list of all k-distant indices sorted in increasing order*.

Example 1:

Input: `nums = [3,4,9,1,3,9,5]`, `key = 9`, `k = 1`

Output: `[1,2,3,4,5,6]`

Explanation: Here, `nums[2] == key` and `nums[5] == key`.

- For index 0, $|0 - 2| > k$ and $|0 - 5| > k$, so there is no `j` where $|0 - j| \leq k$ and `nums[j] == key`. Thus, 0 is not a k-distant index.
- For index 1, $|1 - 2| \leq k$ and `nums[2] == key`, so 1 is a k-distant index.
- For index 2, $|2 - 2| \leq k$ and `nums[2] == key`, so 2 is a k-distant index.
- For index 3, $|3 - 2| \leq k$ and `nums[2] == key`, so 3 is a k-distant index.
- For index 4, $|4 - 5| \leq k$ and `nums[5] == key`, so 4 is a k-distant index.
- For index 5, $|5 - 5| \leq k$ and `nums[5] == key`, so 5 is a k-distant index.
- For index 6, $|6 - 5| \leq k$ and `nums[5] == key`, so 6 is a k-distant index.

Thus, we return `[1,2,3,4,5,6]` which is sorted in increasing order.

Example 2:

Input: `nums = [2,2,2,2,2]`, `key = 2`, `k = 2`

Output: `[0,1,2,3,4]`

Explanation: For all indices `i` in `nums`, there exists some index `j` such that $|i - j| \leq k$ and `nums[j] == key`, so every index is a k-distant index. Hence, we return `[0,1,2,3,4]`.

Constraints:

- $1 \leq \text{nums.length} \leq 1000$
- $1 \leq \text{nums}[i] \leq 1000$
- `key` is an integer from the array `nums`.
- $1 \leq k \leq \text{nums.length}$

