Next Greater Element

Try to solve the Next Greater Element problem.

We'll cover the following

Statement

Given the two distinct integer arrays, `nums1` and `nums2`, where `nums1` is a subset of `nums2`, find all the next greater elements for `nums1` values in the corresponding places of `nums2`.

> **Note:** The next greater element of an element, x, in an array is the first greater element present on the right side of x in the same array.

For each element x in `nums1`, find the next greater element present on the right side of x in `nums2` and store it in the `ans` array. If there is no such element, store -1 for this number. The `ans` array should be of the same length as `nums1`, and the order of the elements in the `ans` array should correspond to the order of the elements in `nums1`.

Return the `ans` array after finding the next greater elements.

> **Note:** The input data may or may not be sorted.

Constraints:

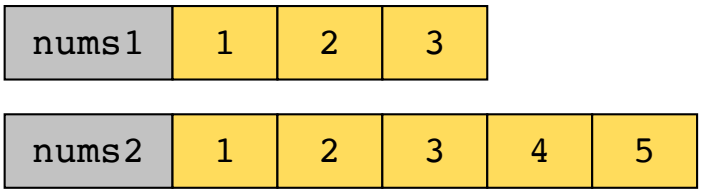
- $1 \leq$ `nums1.length` $\leq$ `nums2.length` $\leq 10^3$
- $0 \leq$ `nums1[i]`, `nums2[i]` $\leq 10^4$
- `nums1` have distinct integers.
- `nums2` have distinct integers.
- All integers in `nums1` also appear in `nums2`.

Examples

Sample example 1

In **nums2**, the number greater than 1 is 2, so we place 2 at its index in the **ans** array. Similarly, the number greater than 2 is 3, so we place 3 at its index in the **ans** array. Lastly, the number greater than 3 is 4, so we place 4 at its index in the **ans** array.

Input



Output

1 of 2

Understand the problem

Let's take a moment to make sure you've correctly understood the problem. The quiz below helps you check if you're solving the correct problem:

Next Greater Element

1 What is the output if the following arrays are given as input?

nums1 = [5, 4, 7]

nums2 = [4, 5, 7, 3]

A) ans = [7, 7, 3]

B) ans = [7, 7, -1]

C) ans = [7, 5, -1]

D) ans = [7, 5, 3]

Submit Answer

Question 1 of 3
0 attempted

Reset Quiz

Figure it out!

We have a game for you to play. Rearrange the logical building blocks to develop a clearer understanding of how to solve this problem.

Drag and drop the cards to rearrange them in the correct sequence.

Create an empty stack and an empty hash map.

Iterate over `nums2`, and for each element, compare it with the top element of the stack.

If the current element of `nums2` is greater than the top element, pop the top element and put a key-value pair in the hash map with the popped element as the key and the current element of `nums2` as the value.

Push the current element onto the stack.

Repeat the process above until we have iterated over all elements in `nums2`.

Finally, iterate over `nums1`, and for each element, append its corresponding value from the hash map to a new array

`ans` and return the `ans` array as the final result.

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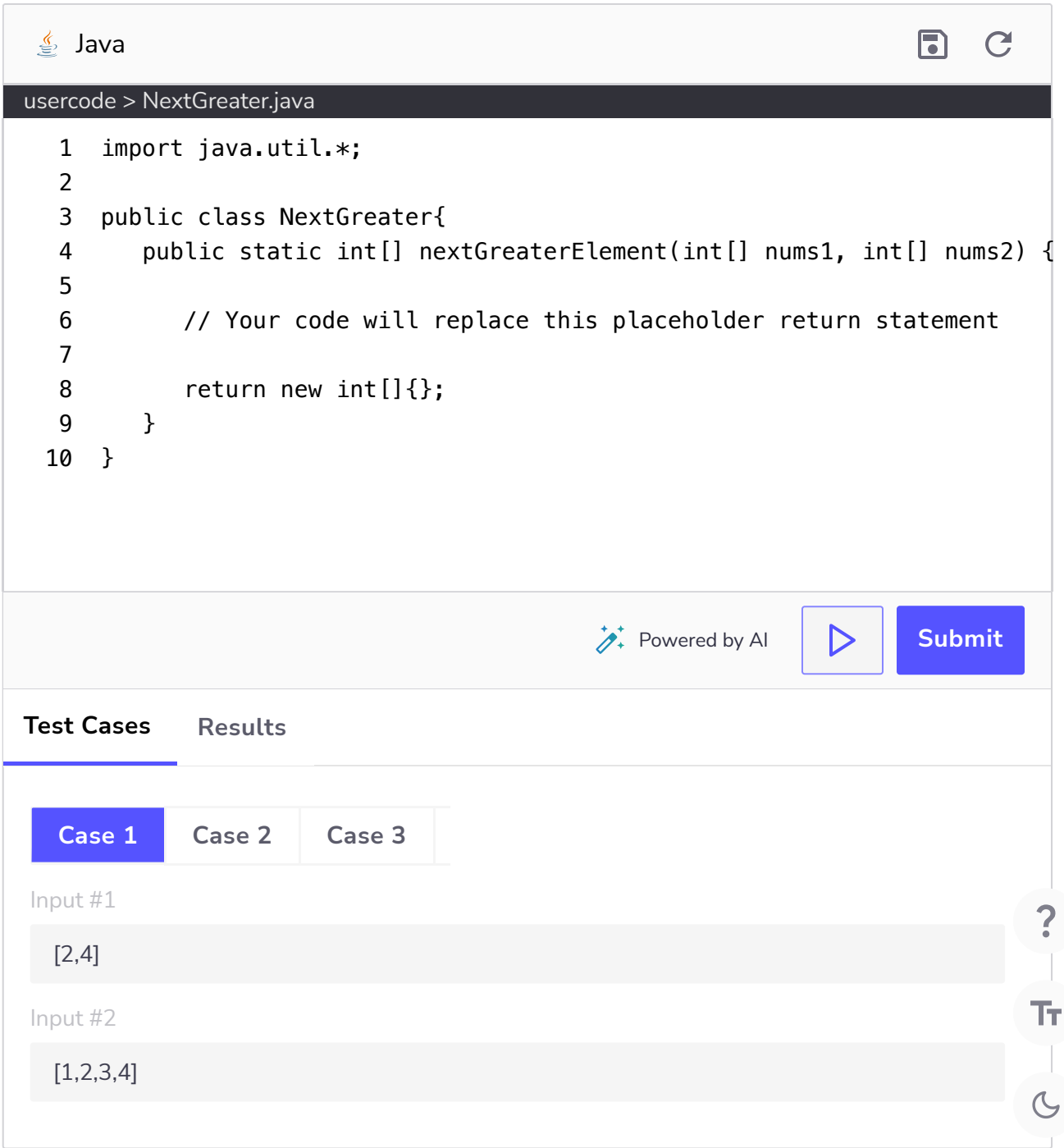
Try it yourself

Implement your solution in the following coding playground:



Next Greater Element

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Solution: Logger Rate ...

Next

Solution: Next Greater...

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