

Array #9 ✓

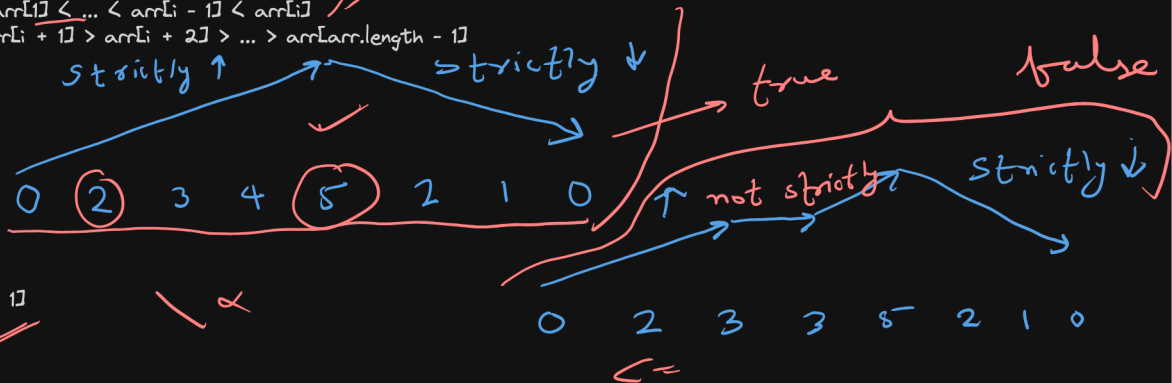
Leetcode #941 ✓

Valid Mountain Array ✓

<https://leetcode.com/problems/valid-mountain-array/> ✓

Given an array of integers `arr`, return true if and only if it is a valid mountain array.
Recall that `arr` is a mountain array if and only if:

- `arr.length >= 3` ✓
- There exists some `i` with $0 < i < arr.length - 1$
 - `arr[0] < arr[1] < ... < arr[i - 1] < arr[i]` ✓
 - `arr[i] > arr[i + 1] > arr[i + 2] > ... > arr[arr.length - 1]`



Example 1:

Input: `arr = [2, 1]`

Output: false ✓

Example 2:

Input: `arr = [3, 5, 5]`

Output: false ✓

Example 2:

Input: `arr = [0, 3, 2, 1]`

Output: true ✓

Constraints:

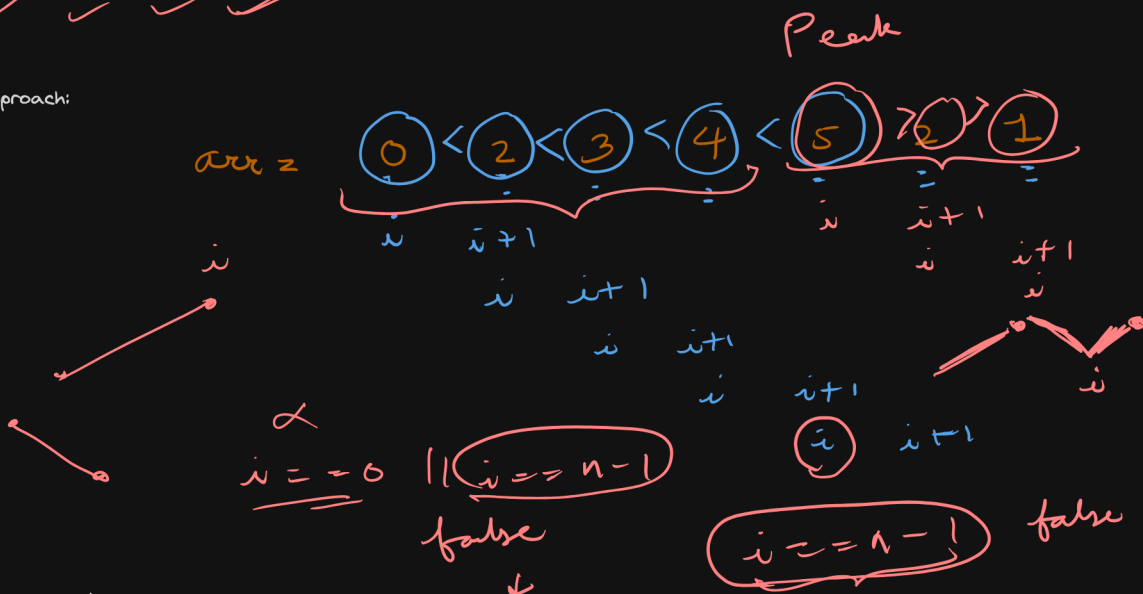
$1 \leq arr.length \leq 10^4$ ✓

$0 \leq arr[i] \leq 10^4$ ✓

Companies:

Google, Amazon, Uber, Adobe ✓ ✓ ✓ ✓

Approach:



Time complexity:

$O(N)$ ✓

Space complexity:

$O(1)$ ✓

```
class Solution {
    public boolean validMountainArray(int[] arr) {
        int i = 0,
            n = arr.length;

        while (i + 1 < n && arr[i] < arr[i + 1]) {
            i++;
        }

        if (i == 0 || i == n - 1) {
            return false;
        }

        while (i + 1 < n && arr[i] > arr[i + 1]) {
            i++;
        }

        return i == n - 1;
    }
}
```