**🧑‍💻 Intern (0–1 Years Experience)**

Given an integer array nums, return *the length of the longest strictly increasing subsequence*. Come up with an algorithm that runs in O(n log(n)) time complexity

**Example 1:**

Input: nums = [10,9,2,5,3,7,101,18]

Output: 4

Explanation: The longest increasing subsequence is [2,3,7,101], therefore the length is 4.

**Example 2:**

Input: nums = [0,1,0,3,2,3]

Output: 4

**Example 3:**

Input: nums = [7,7,7,7,7,7,7]

Output: 1

**Constraints:**

* 1 <= nums.length <= 2500
* -104 <= nums[i] <= 104

**Focus Areas**:

* Dynamic Programming
* Binary Search
* Time and space optimisation