Given an integer array instructions, you are asked to create a sorted array from the elements in instructions. You start with an empty container nums. For each element from **left to right** in instructions, insert it into nums. The **cost** of each insertion is the **minimum** of the following:

* The number of elements currently in nums that are **strictly less than** instructions[i].
* The number of elements currently in nums that are **strictly greater than** instructions[i].

For example, if inserting element 3 into nums = [1,2,3,5], the **cost** of insertion is min(2, 1) (elements 1 and 2 are less than 3, element 5 is greater than 3) and nums will become [1,2,3,3,5].

Return *the****total cost****to insert all elements from*instructions*into*nums. Since the answer may be large, return it **modulo** 109 + 7

**Example 1:**

**Input:** instructions = [1,5,6,2]

**Output:** 1

**Explanation:** Begin with nums = [].

Insert 1 with cost min(0, 0) = 0, now nums = [1].

Insert 5 with cost min(1, 0) = 0, now nums = [1,5].

Insert 6 with cost min(2, 0) = 0, now nums = [1,5,6].

Insert 2 with cost min(1, 2) = 1, now nums = [1,2,5,6].

The total cost is 0 + 0 + 0 + 1 = 1.

**Example 2:**

**Input:** instructions = [1,2,3,6,5,4]

**Output:** 3

**Explanation:** Begin with nums = [].

Insert 1 with cost min(0, 0) = 0, now nums = [1].

Insert 2 with cost min(1, 0) = 0, now nums = [1,2].

Insert 3 with cost min(2, 0) = 0, now nums = [1,2,3].

Insert 6 with cost min(3, 0) = 0, now nums = [1,2,3,6].

Insert 5 with cost min(3, 1) = 1, now nums = [1,2,3,5,6].

Insert 4 with cost min(3, 2) = 2, now nums = [1,2,3,4,5,6].

The total cost is 0 + 0 + 0 + 0 + 1 + 2 = 3.

**Example 3:**

**Input:** instructions = [1,3,3,3,2,4,2,1,2]

**Output:** 4

**Explanation:** Begin with nums = [].

Insert 1 with cost min(0, 0) = 0, now nums = [1].

Insert 3 with cost min(1, 0) = 0, now nums = [1,3].

Insert 3 with cost min(1, 0) = 0, now nums = [1,3,3].

Insert 3 with cost min(1, 0) = 0, now nums = [1,3,3,3].

Insert 2 with cost min(1, 3) = 1, now nums = [1,2,3,3,3].

Insert 4 with cost min(5, 0) = 0, now nums = [1,2,3,3,3,4].

​​​​​​​Insert 2 with cost min(1, 4) = 1, now nums = [1,2,2,3,3,3,4].

​​​​​​​Insert 1 with cost min(0, 6) = 0, now nums = [1,1,2,2,3,3,3,4].

​​​​​​​Insert 2 with cost min(2, 4) = 2, now nums = [1,1,2,2,2,3,3,3,4].

The total cost is 0 + 0 + 0 + 0 + 1 + 0 + 1 + 0 + 2 = 4.