

## 436. Find Right Interval

You are given an array of intervals, where  $\text{intervals}[i] = [\text{start}_i, \text{end}_i]$  and each  $\text{start}_i$  is unique.

The right interval for an interval  $i$  is an interval  $j$  such that  $\text{start}_j \geq \text{end}_i$  and  $\text{start}_j$  is minimized. Note that  $i$  may equal  $j$ .

Return an array of right interval indices for each interval  $i$ . If no right interval exists for interval  $i$ , then put  $-1$  at index  $i$ .

### Example 1:

- **Input:**  $\text{intervals} = [[1,2]]$
- **Output:**  $[-1]$
- **Explanation:** There is only one interval in the collection, so it outputs  $-1$ .

### Example 2:

- **Input:**  $\text{intervals} = [[3,4],[2,3],[1,2]]$
- **Output:**  $[-1,0,1]$
- **Explanation:**
  - There is no right interval for  $[3,4]$ .
  - The right interval for  $[2,3]$  is  $[3,4]$  since  $\text{start}_0 = 3$  is the smallest start that is  $\geq \text{end}_1 = 3$ .
  - The right interval for  $[1,2]$  is  $[2,3]$  since  $\text{start}_1 = 2$  is the smallest start that is  $\geq \text{end}_2 = 2$ .

### Example 3:

- **Input:** intervals = [[1,4],[2,3],[3,4]]
- **Output:** [-1,2,-1]
- **Explanation:**
  - There is no right interval for [1,4] and [3,4].
  - The right interval for [2,3] is [3,4] since start2 = 3 is the smallest start that is  $\geq$  end1 = 3.

### Constraints:

- $1 \leq \text{intervals.length} \leq 2 * 10^4$
- $\text{intervals}[i].\text{length} == 2$
- $-10^6 \leq \text{start}_i \leq \text{end}_i \leq 10^6$
- The start point of each interval is unique.