

## Merge Intervals

Given an array of intervals where  $\text{intervals}[i] = [\text{start}_i, \text{end}_i]$ , merge all overlapping intervals, and return *an array of the non-overlapping intervals that cover all the intervals in the input.*

### **Example 1:**

**Input:**  $\text{intervals} = [[1,3],[2,6],[8,10],[15,18]]$

**Output:**  $[[1,6],[8,10],[15,18]]$

**Explanation:** Since intervals  $[1,3]$  and  $[2,6]$  overlap, merge them into  $[1,6]$ .

### **Example 2:**

**Input:**  $\text{intervals} = [[1,4],[4,5]]$

**Output:**  $[[1,5]]$

**Explanation:** Intervals  $[1,4]$  and  $[4,5]$  are considered overlapping.

### **Constraints:**

- $1 \leq \text{intervals.length} \leq 10^4$
- $\text{intervals}[i].\text{length} == 2$
- $0 \leq \text{start}_i \leq \text{end}_i \leq 10^4$