

# 56. Merge Intervals

## Description

Given an array of `intervals` where `intervals[i] = [starti, endi]`, merge all overlapping intervals, and return *an array of the non-overlapping intervals that cover all the intervals in the input*.

### Example 1:

**Input:** `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:** `intervals = [[1,4],[4,5]]`

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

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

### Constraints:

- `1 <= intervals.length <= 104`
- `intervals[i].length == 2`
- `0 <= starti <= endi <= 104`

