056. Merge Intervals

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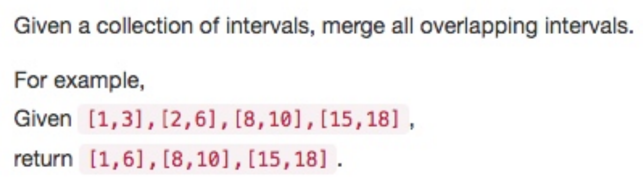
- **Sort**+array

Description



Given a collection of intervals, merge all overlapping intervals.

For example,
Given `[1,3],[2,6],[8,10],[15,18]`,
return `[1,6],[8,10],[15,18]`.

1. Thought line

2. Greedy+array

```
/**
 * Definition for an interval.
 * struct Interval {
 *     int start;
 *     int end;
 *     Interval() : start(0), end(0) {}
 *     Interval(int s, int e) : start(s), end(e) {}
 * };
 */
class Solution {
public:
    vector<Interval> merge(vector<Interval>& intervals) {
        vector<Interval> result;

        sort(intervals.begin(), intervals.end(), [](const Interval & a, const Interval & b){
            return a.start < b.start;
        });

        for (int i=0; !intervals.empty()&&i<=intervals.size()-1; ++i){
            Interval temp = intervals[i];
            while (i+1<=intervals.size()-1 && intervals[i+1].start<=temp.end){
                temp.end = temp.end>intervals[i+1].end?temp.end:intervals[i+1].end;
                ++i;
            }
            result.push_back(temp);
        }
        return result;
    }
};
```