

(14) merging intervals: - sort by start time, compare for each element  
Compare startTime of current with end time of previous,  
merge if less than or equals.

```
List<Interval> mergeIntervals (List<Interval> a) {  
    Collections.sort(a, (Interval a, Interval b) =>  
        { return a.startTime - b.startTime; });  
  
    List<Interval> result = new ArrayList<>();  
  
    Interval previous = a.get(0);  
    result.add(previous);  
    for (int i = 1; i < a.size(); i++) {  
        Interval current = a.get(i);  
        if (previous.endTime >= current.startTime) {  
            if (current.endTime > previous.endTime) {  
                previous.endTime = current.endTime;  
            }  
            result.add(previous);  
        } else {  
            result.add(previous, current);  
            result.add(current);  
            previous = current;  
        }  
    }  
    result.add(previous);  
    return result;  
}
```