```
Runs in O(n) assuming the intervals are given sorted by end time

minAnnouncements(intervals)
    announcements = empty list
    lastAnnouncement = null

    For each interval in intervals:
        start = interval.start
        end = interval.end
        If lastAnnouncement is null or start > lastAnnouncement then
            lastAnnouncement = end
            announcements.add(lastAnnouncement)

    return announcements
```