

## 218. The Skyline Problem



A city's **skyline** is the outer contour of the silhouette formed by all the buildings in that city when viewed from a heights of all the buildings, return the **skyline** formed by these buildings collectively.

The geometric information of each building is given in the array buildings where buildings[i] = [lefti, ri

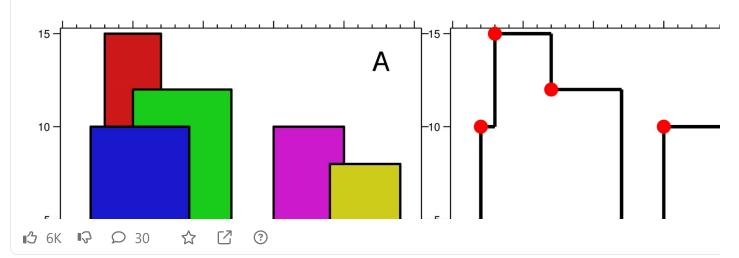
- $[left_i]$  is the x coordinate of the left edge of the  $[i^{th}]$  building.
- right; is the x coordinate of the right edge of the ith building.
- height<sub>i</sub> is the height of the [i<sup>th</sup>] building.

You may assume all buildings are perfect rectangles grounded on an absolutely flat surface at height 0.

The **skyline** should be represented as a list of "key points" **sorted by their x-coordinate** in the form  $[[x_1, y_1], [$  the left endpoint of some horizontal segment in the skyline except the last point in the list, which always has a y-the skyline's termination where the rightmost building ends. Any ground between the leftmost and rightmost building skyline's contour.

**Note:** There must be no consecutive horizontal lines of equal height in the output skyline. For instance, [..., [27]] is not acceptable; the three lines of height 5 should be merged into one in the final output as such: [...]

## **Example 1:**



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