[452. Minimum Number of Arrows to Burst Balloons](https://leetcode.com/problems/minimum-number-of-arrows-to-burst-balloons/)

Medium

6.3K

176

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There are some spherical balloons taped onto a flat wall that represents the XY-plane. The balloons are represented as a 2D integer array points where points[i] = [xstart, xend] denotes a balloon whose **horizontal diameter** stretches between xstart and xend. You do not know the exact y-coordinates of the balloons.

Arrows can be shot up **directly vertically** (in the positive y-direction) from different points along the x-axis. A balloon with xstart and xend is **burst** by an arrow shot at x if xstart <= x <= xend. There is **no limit** to the number of arrows that can be shot. A shot arrow keeps traveling up infinitely, bursting any balloons in its path.

Given the array points, return *the****minimum****number of arrows that must be shot to burst all balloons*.

**Example 1:**

**Input:** points = [[10,16],[2,8],[1,6],[7,12]]

**Output:** 2

**Explanation:** The balloons can be burst by 2 arrows:

- Shoot an arrow at x = 6, bursting the balloons [2,8] and [1,6].

- Shoot an arrow at x = 11, bursting the balloons [10,16] and [7,12].

**Example 2:**

**Input:** points = [[1,2],[3,4],[5,6],[7,8]]

**Output:** 4

**Explanation:** One arrow needs to be shot for each balloon for a total of 4 arrows.

**Example 3:**

**Input:** points = [[1,2],[2,3],[3,4],[4,5]]

**Output:** 2

**Explanation:** The balloons can be burst by 2 arrows:

- Shoot an arrow at x = 2, bursting the balloons [1,2] and [2,3].

- Shoot an arrow at x = 4, bursting the balloons [3,4] and [4,5].

**Constraints:**

* 1 <= points.length <= 105
* points[i].length == 2
* -231 <= xstart < xend <= 231 - 1