3119. Maximum Number of Potholes That Can Be Fixed Premium

Medium | Topics | Companies | Hint

You are given a string `road`, consisting only of characters `"x"` and `"."`, where each `"x"` denotes a *pothole* and each `"."` denotes a smooth road, and an integer `budget`.

In one repair operation, you can repair `n` **consecutive** potholes for a price of `n + 1`.

Return the **maximum** number of potholes that can be fixed such that the sum of the prices of all of the fixes **doesn't go over** the given budget.

Example 1:

> **Input:** `road = "..", budget = 5`
>
> **Output:** `0`
>
> **Explanation:**
>
> There are no potholes to be fixed.

Example 2:

> **Input:** `road = "..xxxxx", budget = 4`
>
> **Output:** 3
>
> **Explanation:**
>
> We fix the first three potholes (they are consecutive). The budget needed for this task is `3 + 1 = 4`.

Example 3:

> **Input:** `road = "x.x.xxx...x", budget = 14`
>
> **Output:** 6
>
> **Explanation:**
>
> We can fix all the potholes. The total cost would be `(1 + 1) + (1 + 1) + (3 + 1) + (1 + 1) = 10` which is within our budget of 14.

Constraints:

- `1 <= road.length <= 10^5`
- `1 <= budget <= 10^5 + 1`
- `road` consists only of characters `'.'` and `'x'`.

Seen this question in a real interview before? **1/5**

Yes No

Accepted **1.4K** | Submissions **2.5K** | Acceptance Rate **57.1%**

Topics

String Greedy Sorting

Companies

0 - 3 months

Geico 7 Microsoft 2

Hint 1

Find all consecutive blocks of `'x'`.

Hint 2

Sort them by their length.

Hint 3

Try to fix the block from the largest one until you have enough budget.

Discussion (2)