Description Discussion (1) Solutions (255) Submissions

2483. Minimum Penalty for a Shop

Hint

Medium 189 3

Companies

You are given the customer visit log of a shop represented by a **0-indexed** string `customers` consisting only of characters `'N'` and `'Y'`:

- if the i^{th} character is `'Y'`, it means that customers come at the i^{th} hour
- whereas `'N'` indicates that no customers come at the i^{th} hour.

If the shop closes at the j^{th} hour (`0 <= j <= n`), the **penalty** is calculated as follows:

- For every hour when the shop is open and no customers come, the penalty increases by `1`.
- For every hour when the shop is closed and customers come, the penalty increases by `1`.

Return *the **earliest** hour at which the shop must be closed to incur a **minimum** penalty.*

Note that if a shop closes at the j^{th} hour, it means the shop is closed at the hour `j`.

Example 1:

```
Input: customers = "YYNY"
Output: 2
Explanation:
- Closing the shop at the 0th hour incurs in 1+1+0+1 = 3 penalty.
- Closing the shop at the 1st hour incurs in 0+1+0+1 = 2 penalty.
- Closing the shop at the 2nd hour incurs in 0+0+0+1 = 1 penalty.
- Closing the shop at the 3rd hour incurs in 0+0+1+1 = 2 penalty.
- Closing the shop at the 4th hour incurs in 0+0+1+0 = 1 penalty.
Closing the shop at 2nd or 4th hour gives a minimum penalty. Since 2 is earlier, the optimal closing time
is 2.
```

Example 2:

```
Input: customers = "NNNNN"
Output: 0
Explanation: It is best to close the shop at the 0th hour as no customers arrive.
```

Example 3:

```
Input: customers = "YYYY"
Output: 4
Explanation: It is best to close the shop at the 4th hour as customers arrive at each hour.
```

Constraints:

- `1 <= customers.length <= 10^5`
- `customers` consists only of characters `'Y'` and `'N'`.

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Seen this question in a real interview before? 1/4

Yes No

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1  class Solution {
2      public int bestClosingTime(String customers) {
3
4      }
5  }
```


Console Run Submit