

2017. Minimum Number of Flips to Make the Binary String Alternating

Difficulty : Medium

<https://leetcode.com/problems/minimum-number-of-flips-to-make-the-binary-string-alternating>

You are given a binary string s . You are allowed to perform two types of operations on the string in any sequence:

- **Type-1: Remove** the character at the start of the string s and **append** it to the end of the string.
- **Type-2: Pick** any character in s and **flip** its value, i.e., if its value is '0' it becomes '1' and vice-versa.

Return the *minimum* number of **type-2** operations you need to perform such that s becomes **alternating**.

The string is called **alternating** if no two adjacent characters are equal.

- For example, the strings "010" and "1010" are alternating, while the string "0100" is not.

Example 1:

Input: $s = "111000"$

Output: 2

Explanation: Use the first operation two times to make $s = "100011"$.

Then, use the second operation on the third and sixth elements to make $s = "10\underline{1}01\underline{0}"$.

Example 2:

Input: $s = "010"$

Output: 0

Explanation: The string is already alternating.

Example 3:

Input: $s = "1110"$

Output: 1

Explanation: Use the second operation on the second element to make $s = "1\underline{0}10"$.

Constraints:

- $1 \leq s.length \leq 10^5$
- $s[i]$ is either '0' or '1'.