6035. Number of Ways to Select Buildings

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User Accepted:	0
User Tried:	0
Total Accepted:	0
Total Submissions:	0
Difficulty:	Medium

You are given a **0-indexed** binary string `s` which represents the types of buildings along a street where:

- `s[i] = '0'` denotes that the i^{th} building is an office and
- `s[i] = '1'` denotes that the i^{th} building is a restaurant.

As a city official, you would like to **select** 3 buildings for random inspection. However, to ensure variety, **no two consecutive** buildings out of the **selected** buildings can be of the same type.

- For example, given `s = "001101"`, we cannot select the 1^{st}, 3^{rd}, and 5^{th} buildings as that would form `"011"` which is **not** allowed due to having two consecutive buildings of the same type.

Return *the **number of valid ways** to select 3 buildings.*

Example 1:

```
Input: s = "001101"
Output: 6
Explanation:
The following sets of indices selected are valid:
- [0,2,4] from "001101" forms "010"
- [0,3,4] from "001101" forms "010"
- [1,2,4] from "001101" forms "010"
- [1,3,4] from "001101" forms "010"
- [2,4,5] from "001101" forms "101"
- [3,4,5] from "001101" forms "101"
No other selection is valid. Thus, there are 6 total ways.
```

Example 2:

```
Input: s = "11100"
Output: 0
Explanation: It can be shown that there are no valid selections.
```

Constraints:

- `3 <= s.length <= 10^5`
- `s[i]` is either `'0'` or `'1'`.

JavaScript

```javascript
const numberOfWays = (s) => op(s, '101') + op(s, '010')

const op = (s, t) => {
    let one = 0, two = 0, three = 0;
    for (const c of s) {
        if (c == t[2]) three += two;
        if (c == t[1]) two += one;
        if (c == t[0]) one++;
    }
    return three;
};
```

Custom Testcase Use Example Testcases

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