5457. Number of Sub-arrays With Odd Sum

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Given an array of integers `arr` . Return *the number of sub-arrays* with **odd** sum.

As the answer may grow large, the answer **must be** computed modulo `10^9 + 7` .

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

Example 1:

```
Input: arr = [1,3,5]
Output: 4
Explanation: All sub-arrays are [[1],[1,3],[1,3,5],[3],[
All sub-arrays sum are [1,4,9,3,8,5].
Odd sums are [1,9,3,5] so the answer is 4.
```

Example 2:

```
Input: arr = [2,4,6]
Output: 0
Explanation: All sub-arrays are [[2],[2,4],[2,4,6],[4],[4,6],[6]]
All sub-arrays sum are [2,6,12,4,10,6].
All sub-arrays have even sum and the answer is 0.
```

Example 3:

```
Input: arr = [1,2,3,4,5,6,7]
Output: 16
```

Example 4:

```
Input: arr = [100,100,99,99]
Output: 4
```

Example 5:

```
Input: arr = [7]
Output: 1
```

Constraints:

- `1 <= arr.length <= 10^5`
- `1 <= arr[i] <= 100`

JavaScript

```
/**
 * @param {number[]} arr
 * @return {number}
 */
const numOfSubarrays = (arr) => {
    let n = arr.length;
    let tmp = [1, 0];
    let res = 0, val = 0;
    for (let i = 0; i <= n - 1; i++) {
        val = ((val + arr[i]) % 2 + 2) % 2;
        tmp[val]++;
    }
    res = tmp[0] * tmp[1];
    return res % 1000000007;
};
```

Custom Testcase Use Example Testcases

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