6288. Find Consecutive Integers from a Data Stream

My Submissions (/contest/biweekly-contest-95/problems/find-consecutive-integers-from-a-data-stream/submissions/)

Back to Contest (/contest/biweekly-contest-95/)

For a stream of integers, implement a data structure that checks if the last `k` integers parsed in the stream are **equal** to `value`.

Implement the **DataStream** class:

- `DataStream(int value, int k)` Initializes the object with an empty integer stream and the two integers `value` and `k`.
- `boolean consec(int num)` Adds `num` to the stream of integers. Returns `true` if the last `k` integers are equal to `value`, and `false` otherwise. If there are less than `k` integers, the condition does not hold true, so returns `false`.

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

Example 1:

```
Input
["DataStream", "consec", "consec", "consec", "consec"]
[[4, 3], [4], [4], [4], [3]]
Output
[null, false, false, true, false]

Explanation
DataStream dataStream = new DataStream(4, 3); //value = 4, k = 3
dataStream.consec(4); // Only 1 integer is parsed, so returns False.
dataStream.consec(4); // Only 2 integers are parsed.
                      // Since 2 is less than k, returns False.
dataStream.consec(4); // The 3 integers parsed are all equal to value, so returns True.
dataStream.consec(3); // The last k integers parsed in the stream are [4,4,3].
                      // Since 3 is not equal to value, it returns False.
```

Constraints:

- `1 <= value, num <= 10^9`
- `1 <= k <= 10^5`
- At most `10^5` calls will be made to `consec`.

JavaScript

```
function DataStream(v, k) {
    let a = [];
    return { consec }
    function consec(x) {
        a.push(x);
        if (a.length < k) return false;
        for (let i = a.length - 1, cnt = 0; cnt < k && i >= 0; cnt++, i--) {
            if (a[i] != v) return false;
        }
        return true;
    }
}
```

Custom Testcase | Use Example Testcases

Run | Submit

Submission Result: Accepted (/submissions/detail/873355538/) | More Details > (/submissions/detail/873355538/)

Share your acceptance!