


2526. Find Consecutive Integers from a Data Stream

Hint Medium   69  2   Companies

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`.

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:

- $1 \leq \text{value}, \text{num} \leq 10^9$
- $1 \leq k \leq 10^5$
- At most 10^5 calls will be made to `consec`.

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Yes No

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