346. Moving Average from Data Stream Premium

Solved ●

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Given a stream of integers and a window size, calculate the moving average of all integers in the sliding window.

Implement the `MovingAverage` class:

- `MovingAverage(int size)` Initializes the object with the size of the window `size`.
- `double next(int val)` Returns the moving average of the last `size` values of the stream.

Example 1:

> **Input**
> ["MovingAverage", "next", "next", "next", "next"]
> [[3], [1], [10], [3], [5]]
> **Output**
> [null, 1.0, 5.5, 4.66667, 6.0]
>
> **Explanation**
> MovingAverage movingAverage = new MovingAverage(3);
> movingAverage.next(1); // return 1.0 = 1 / 1
> movingAverage.next(10); // return 5.5 = (1 + 10) / 2
> movingAverage.next(3); // return 4.66667 = (1 + 10 + 3) / 3
> movingAverage.next(5); // return 6.0 = (10 + 3 + 5) / 3

Constraints:

- `1 <= size <= 1000`
- `-10^5 <= val <= 10^5`
- At most `10^4` calls will be made to `next`.

Seen this question in a real interview before? 1/4

Yes No

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