

Data Stream as Disjoint Intervals

Given a data stream input of non-negative integers $a_1, a_2, \dots, a_n, \dots$, summarize the numbers seen so far as a list of disjoint intervals.

For example, suppose the integers from the data stream are 1, 3, 7, 2, 6, ..., then the summary will be:

[1, 1]

[1, 1], [3, 3]

[1, 1], [3, 3], [7, 7]

[1, 3], [7, 7]

[1, 3], [6, 7]

Follow up:

What if there are lots of merges and the number of disjoint intervals are small compared to the data stream's size?

Credits:

Special thanks to [@yunhong](#) for adding this problem and creating most of the test cases.

From [Leetcode](#).