

Two Pointers

સરળતા array (or) ગ્રેડેડ list ન

merge કરો with (value, list_id)

એમ્પ્ટી ચાલે તેના list [2] ને એમ્પ્ટી

track કરે ચાલે sliding window ની

અને ગ્રેડેડ range choose કરો, એવાને

સો list (અથવા) atleast ગ્રેડેડ ચાલે,

right pointer move કરો સરળતા

જો એમ્પ્ટી સો list નું ગ્રેડેડ (or)

at least થોડું,

left pointer shrink કરો સરળતા

same list નું ગ્રેડેડ એમ્પ્ટી

Candidate સરળતા,

Setup

nums

[1, 2, 3]

[1, 2, 3]

[1, 2, 3]

We go through each list in nums and
append each number to the
merged array, pairing the number with its list index.

After the first list (nums[0] = [1, 2, 3]):
merged = [(1, 0), (2, 0), (3, 0)].

After the second list (nums[1] = [1, 2, 3]):
merged = [(1, 0), (2, 0), (3, 0), (1, 1), (2, 1), (3, 1)].

After the third list (nums[2] = [1, 2, 3]):
merged = [(1, 0), (2, 0), (3, 0), (1, 1), (2, 1), (3, 1), (1, 2), (2, 2), (3, 2)].

Merged (sorted): [(1, 0), (1, 1), (1, 2), (2, 0), (2, 1), (2, 2), (3, 0), (3, 1), (3, 2)].

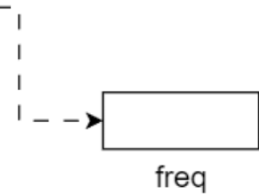
Sliding window

Merged	(1, 0)	(1, 1)	(1, 2)	(2, 0)	(2, 1)	(2, 2)	(3, 0)	(3, 1)	(3, 2)
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left = 0, count = 0, rangeStart = 0, rangeEnd = INT_MAX

The key in the freq map is the list index
(the second element of each pair in the merged array).

The value in the freq map is the count of numbers from
that specific list that are currently in the sliding window.



Merged	(1, 0)	(1, 1)	(1, 2)	(2, 0)	(2, 1)	(2, 2)	(3, 0)	(3, 1)	(3, 2)
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↑ left ↑ right

count = 2 (we've covered 2 out of 3 lists).

Still not enough coverage, so continue.

{1: 1}
{0: 1}

freq

Merged	(1, 0)	(1, 1)	(1, 2)	(2, 0)	(2, 1)	(2, 2)	(3, 0)	(3, 1)	(3, 2)
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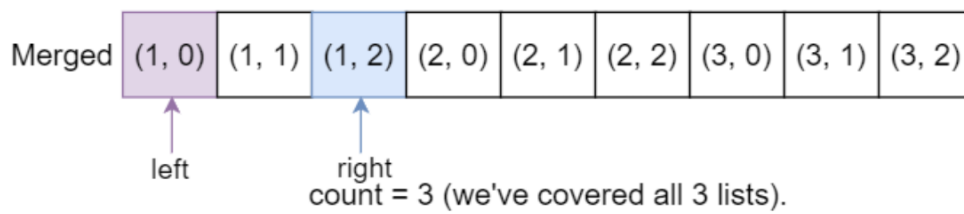
↑ left, right

count = 1 (we've covered 1 out of the 3 lists).

Since count is not equal to nums.size() (3),
we continue expanding the window.

{0: 1}

freq



Now that we've covered all the lists, we calculate the current range:

Current range:
 $\text{merged}[\text{right}].\text{first} - \text{merged}[\text{left}].\text{first} = 1 - 1 = 0.$

This is smaller than $\text{rangeEnd} - \text{rangeStart} = \text{INT_MAX},$

so we update the range:
 $\text{rangeStart} = 1, \text{rangeEnd} = 1.$

{2: 1}
{1: 1}
{0: 1}

freq



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