

#### 4. Median of 2 Sorted Arrays

Input: 2 Sorted Arrays

2 Sorted Arrays  $\left\{ \begin{array}{l} \rightarrow \text{Min Heap of Bigger Half} \\ \rightarrow \text{Max Heap of Smaller Half} \end{array} \right.$

Arbitrarily give the bigger heap  $(n // 2) + 1$  if odd

1, 3	min_heap =	<sup>1</sup> 1	<sup>2</sup> 1, 2	len_diff > 1	2	<sup>3</sup> 2, 3	<sup>4</sup> 2, 3, 4	len_diff > 1	3, 4
2	max_heap =				1	1	1		1, 2

Iterate through List A and B and next() is the lowest value of the 2

⑥ Push into min\_heap

①  $\text{len}(\text{min\_heap}) - \text{len}(\text{max\_heap}) > 1$

val = pop from min\_heap

push val into max\_heap