Algorithm Merge k Sorted Vectors

Require: This pseudocode is specific to *vector* container in C++

1: **function** MERGE_SORTED_VECTORS(mat)
    ▷ This solution destroys the original vectors
    ▷ min_heap contains the element, and the index of the vector it came from

2:     **for** each *vector* in *mat* **do**
3:         $reverse(vector)$
4:     **for** $index = 1 : mat.size$ **do**   ▷ Push the minimum element into min_heap
5:         $min\_heap.push(mat[index].back, index)$
6:     **while** min_heap is not **empty do**
7:         $(current\_element, index) \leftarrow min\_heap.top$
8:         $min\_heap.pop$
9:         $mat[index].pop\_back$
10:        **Print** $current\_element$
11:        **if** $mat[index]$ is not **empty then**
12:            $min\_heap.push(mat[index].back, index)$