Homework

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# Sorted Merge

Assume that you have two `vector`s, sorted in ascending order. Write a function which merges those two `vector`s, keeping the elements in sorted order and produces a new, sorted result. The input `vector`s are not modified.

Keep a separate index into each `vector`, indicating how much of it has been processed already. On each iteration, append the smallest unprocessed element from either `vector`, then advance the appropriate index.

For example, if `vector a` contains the elements `[1 4 9 16]` while `vector b` contains `[4 7 9 9 11]`, then the merged sorted `vector` should contain `[1 4 4 7 9 9 9 11 16]`.

Do not use the `sort()` function from the standard library. Your solution should make one pass through both vectors to produce the result. It should not add the vectors together and them sort them.

Use `make run`, `make test` and `make submit` as usual. Ask questions on the discussion board if you get stuck or come by my office hours.