

simulation. $O(n)$.

note. if the two sorted lists are represented as finger search trees, with size n and m (wlog assume $n \leq m$), can merge in $O(n \log \frac{m}{n})$ time and get a result list with the same format [1].

<https://chaoxuprime.com/posts/2014-11-22-applications-of-finger-tree.html>

References

- [1] Mark R Brown and Robert E Tarjan. A fast merging algorithm. Technical report, STANFORD UNIV CALIF DEPT OF COMPUTER SCIENCE, 1977.