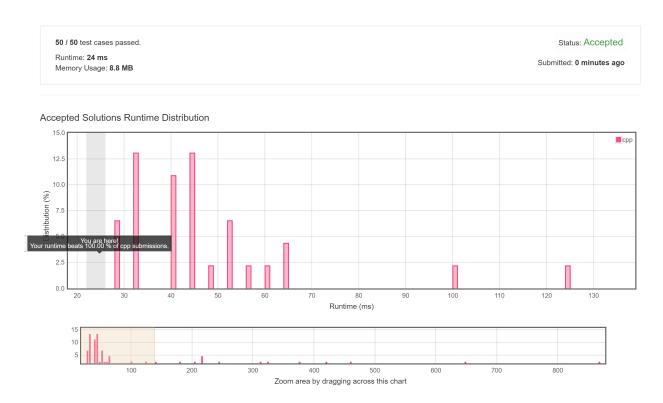
For each string  $s_i$ , greedily choose whether to reverse it or not, then connect all strings in the given order to form a string  $\hat{s}$ . The optimal solution must start from a string  $s_j$ 's suffix/reversed prefix, append a corresponding circular shift of  $\hat{s}$  after deleting  $s_j$  from it, then append the remaining part of  $s_j$ . After constructing a suffix tree of  $\hat{s}\#s_1\#s_1\#s_2\#s_2\#\ldots$ , we can compute the LCP of two different solutions in O(1) time, therefore we can find the lexicographically biggest string using O(L) string comparisons. O(L).



## References