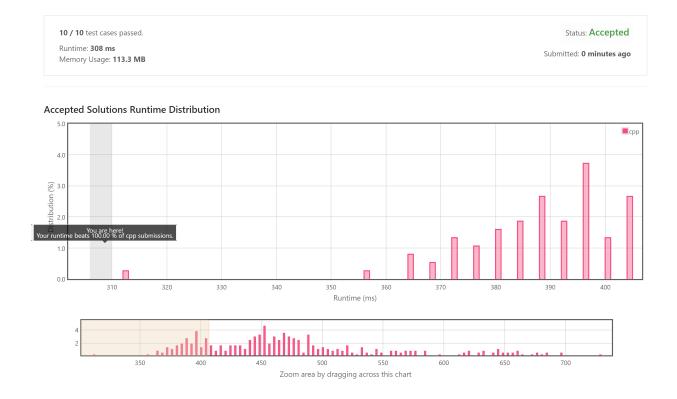
This is the level ancestor problem. O(n) preprocessing, O(1) query.

https://en.wikipedia.org/wiki/Level\_ancestor\_problem



## References