Daily Coding Problem: Problem #24 [Medium]
1 message

Daily Coding Problem <founders@dailycodingproblem.com>   Fri, Jul 1, 2022 at 11:33 AM
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Daily Coding Problem

Good morning! Here's your coding interview problem for today.

This problem was asked by Google.

Implement locking in a binary tree. A binary tree node can be locked or unlocked only if all of its descendants or ancestors are not locked.

Design a binary tree node class with the following methods:

- `is_locked`, which returns whether the node is locked
- `lock`, which attempts to lock the node. If it cannot be locked, then it should return false. Otherwise, it should lock it and return true.
- `unlock`, which unlocks the node. If it cannot be unlocked, then it should return false. Otherwise, it should unlock it and return true.

You may augment the node to add parent pointers or any other property you would like. You may assume the class is used in a single-threaded program, so there is no need for actual locks or mutexes. Each method should run in O(h), where h is the height of the tree.

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If you liked this problem, feel free to forward it along so they can subscribe here! As always, shoot us an email if there's anything we can help with!

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No more?