582. Kill Process Premium

Medium | Topics | Companies

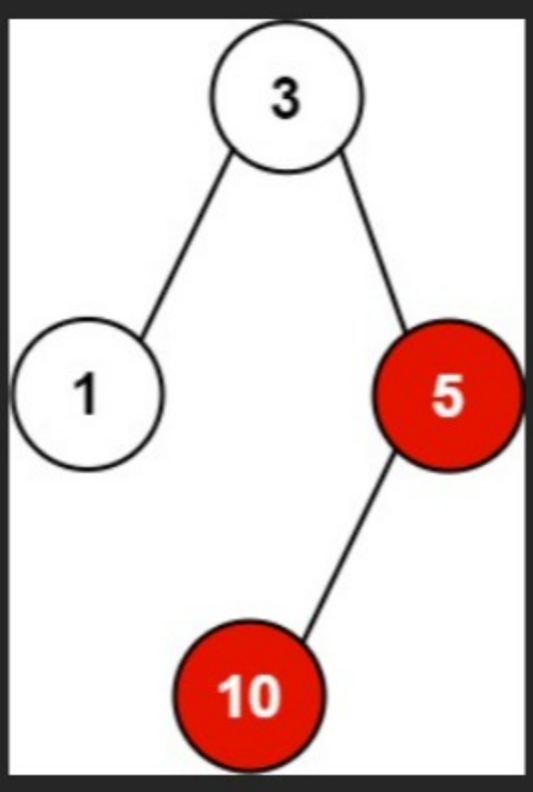
You have `n` processes forming a rooted tree structure. You are given two integer arrays `pid` and `ppid`, where `pid[i]` is the ID of the `i^th` process and `ppid[i]` is the ID of the `i^th` process's parent process.

Each process has only **one parent process** but may have multiple children processes. Only one process has `ppid[i] = 0`, which means this process has **no parent process** (the root of the tree).

When a process is **killed**, all of its children processes will also be killed.

Given an integer `kill` representing the ID of a process you want to kill, return *a list of the IDs of the processes that will be killed. You may return the answer in* ***any order***.

Example 1:



> **Input:** pid = [1,3,10,5], ppid = [3,0,5,3], kill = 5
> **Output:** [5,10]
> **Explanation:** The processes colored in red are the processes that should be killed.

Example 2:

> **Input:** pid = [1], ppid = [0], kill = 1
> **Output:** [1]

Constraints:

- `n == pid.length`
- `n == ppid.length`
- `1 <= n <= 5 * 10^4`
- `1 <= pid[i] <= 5 * 10^4`
- `0 <= ppid[i] <= 5 * 10^4`
- Only one process has no parent.
- All the values of `pid` are **unique**.
- `kill` is **guaranteed** to be in `pid`.

Seen this question in a real interview before? 1/5

Yes No

Accepted 88.9K | Submissions 127.5K | Acceptance Rate 69.8%

Topics

Array Hash Table Tree Depth-First Search Breadth-First Search

Companies

0 - 3 months

Oracle 2

0 - 6 months

Bloomberg 3 Amazon 2

6 months ago

Citadel 2

Discussion (2)

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