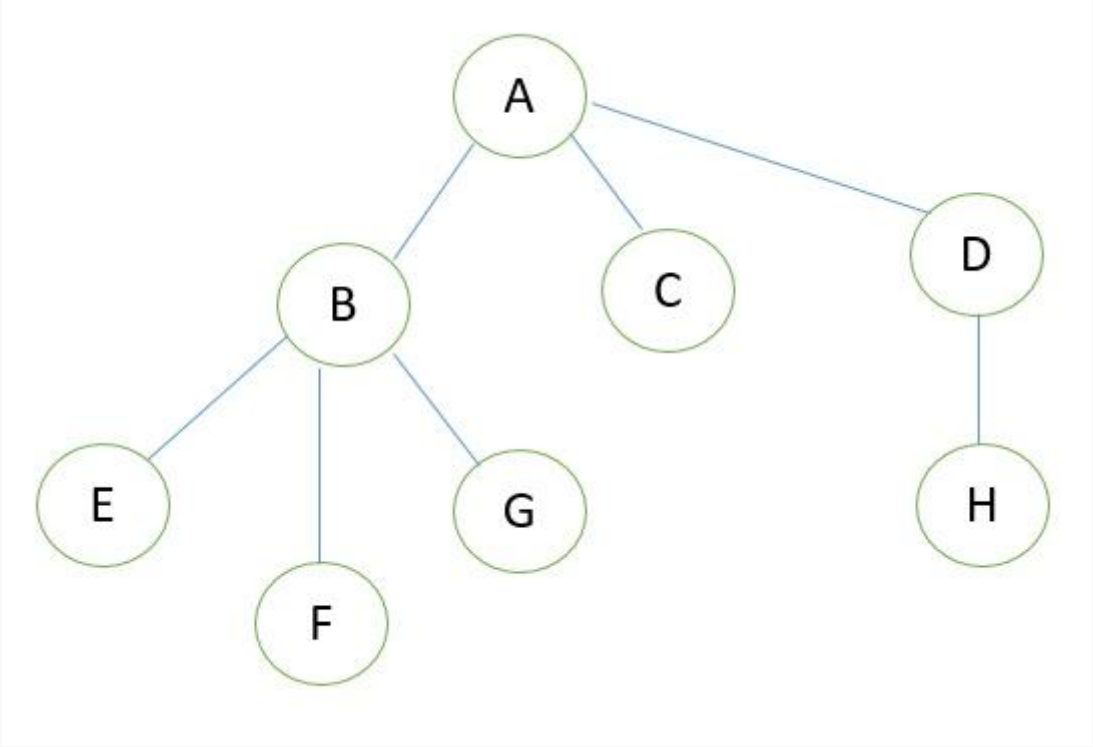
Dependency Tree

A dependency tree organizes structures so there are explicit relationships between entities. In a tree structure, each node can have only one parent but a node may have many children. A dependecy tree can drawn between jobs, softwares or items. For example, consider the dependency tree figure given below:



A is referred as parent of B, C and D, B is parent of E, F and G and E, F and G are children of B and so on. Given the details of all parent and child relationship in a dependency tree and a name ‘m’, write a C++ code to find all dependencies of ‘m’. The above tree structure contain seven parent child relation as follows:

A B

A C

B E

B F

B G

D H

For example, in the above tree, if ‘F’ is given then the dependencies are B and A.

Input Format

Number of parent child realtion in the tree, n

Next ‘n’ lines contain the name of the parent and the child nodes

Next line contains the name of the node whose dependency is to be found ‘m’

Output Format

Print the dependency node names from direct parent of the node ‘m’ in a line separated by a space

Problem Statistics

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Solved By: 0

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```python

n = int(input())
tree = {}
for i in range(n):
    parent,child = tuple(input().split())
    if child in tree:
        tree[child].append(parent)
    else:
        tree[child]=[parent]
for child in tree:
    for parent in tree[child]:
        if parent in tree:
            for relation in tree[parent]:
                if relation not in tree[child]: tree[child].ap
node = input()
print(*tree[node])

```

Use custom I/O

Run Code | Save Code | Pause Test

Status:

Success your code has passed all test cases!!