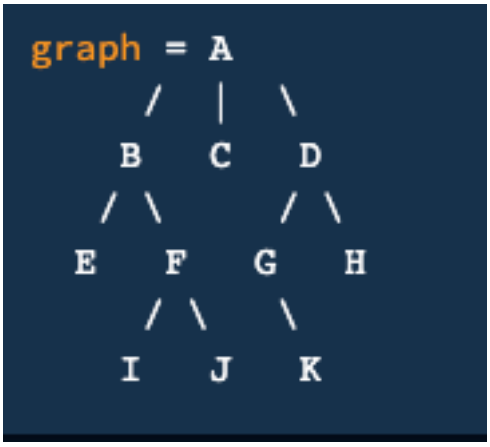
Depth-first Search

You're given a new class that has a name and an array of optional children nodes. When put together, nodes form a cyclic tree like structure.

Implement the depth first search method on the new class, which takes in an empty array, traverses the tree using depth first search approach (specifically navigating the tree from left to right), stores all the node names in the input array, and returns it.

Example:



Solution:

➔ `["A","B","E","F","I","J","C","D","G","K","H"]`

Optimal space and time complexity:
O(v + e) time and O(v) space, where v is the number of vertices of the input graph and e is the number of edges of the input graph