

Solution 1

```
1 # Copyright © 2020 AlgoExpert, LLC. All rights reserved.
2
3 class Node:
4     def __init__(self, name):
5         self.name = name
6         self.children = []
7
8     def addChild(self, name):
9         self.children.append(Node(name))
10        return self
11
12 # O(v + e) time | O(v) space
13 def breadthFirstSearch(self, array):
14     queue = [self]
15     while len(queue) > 0:
16         current = queue.pop(0)
17         array.append(current.name)
18         for child in current.children:
19             queue.append(child)
20     return array
21
```

Solution 1 Solution 2 Solution 3

```
1 # Do not edit the class below except
2 # for the breadthFirstSearch method.
3 # Feel free to add new properties
4 # and methods to the class.
5 class Node:
6     def __init__(self, name):
7         self.children = []
8         self.name = name
9
10    def addChild(self, name):
11        self.children.append(Node(name))
12        return self
13
14    def breadthFirstSearch(self, array):
15        # Write your code here.
16        pass
17
```

Run or submit code when you're ready.