

Python IV - Lesson 29

Date: Jan 2, 2022

Agenda

- ▶ CCC questions (2012 J5)
- ▶ DFS (if we have time)



Proverbs 10:12

- ▶ “Hatred stirs up conflict, but love covers over all wrongs.”

CCC questions

Introduction:

<https://cemc.uwaterloo.ca/contests/computing/details.html>

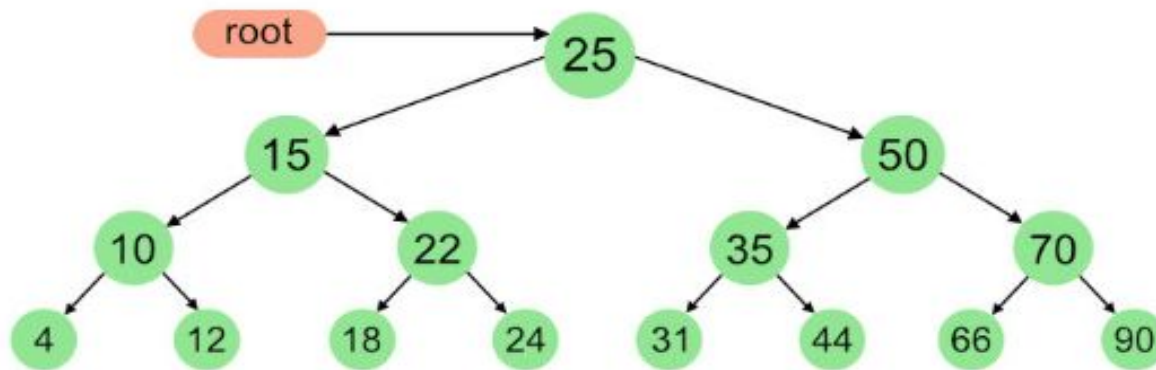
Past contests:

https://www.cemc.uwaterloo.ca/contests/past_contests.html

DFS

Depth First Search

We will be using recursion to keep track of all the previous (parent) nodes while traversing.



InOrder(root) visits nodes in the following order:

4, 10, 12, 15, 18, 22, 24, 25, 31, 35, 44, 50, 66, 70, 90

```
class Node:
    def __init__(self, key):
        self.left = None
        self.right = None
        self.val = key
```

1. Traverse the left subtree, i.e., call Inorder(left->subtree)
2. Visit the root.
3. Traverse the right subtree, i.e., call Inorder(right->subtree)