Let's start at 9:05 PM sharp.

L82
Traversals & DP on Trees

Join Discord - https://bit.ly/ly-discord
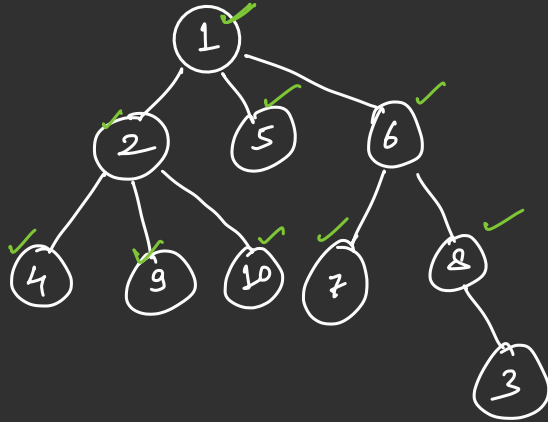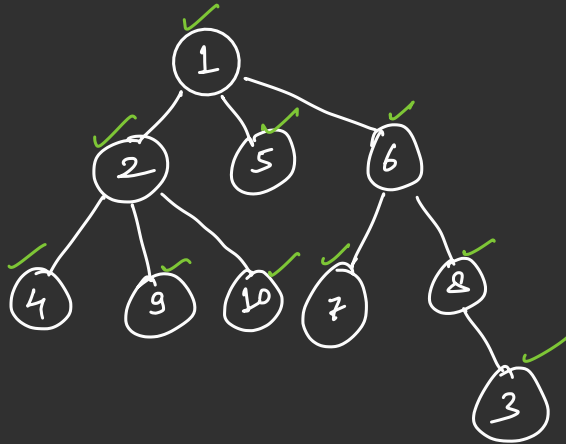
RECAP

Traversals

DFS

BFS

1. Depth first Search

```
print (cur);
for (children of cur):
    recur(child);
```


1, 2, 4, 9, 10, 5, 6, 7, 8, 3
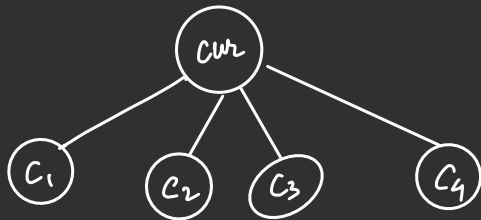
2. Breadth first Search

cur →

[ ]

1, 2, 5, 6, 4, 9, 10, 7, 8, 3

The DFS Call

Subtree Size of each node

$$num[cur] = 1 + num[c_1] + num[c_2] + num[c_3] + num[c_4]$$

$$num[cur] = 1 + \sum_{c \in children(cur)} num[c]$$

LearnYard

Level of each node
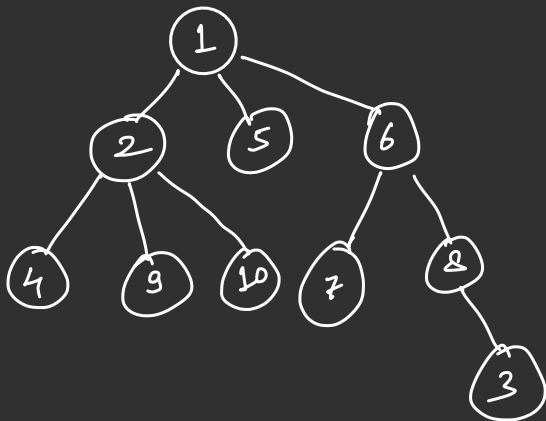

$$level[cur] = level[par] + 1$$

Practice Problems

1. Family Tree

Intuition

Let's implement

Thank You!

Reminder: Going to the gym & observing the trainer work out can help you know the right technique, but you'll muscle up only if you lift some weights yourself.

So, PRACTICE, PRACTICE, PRACTICE!