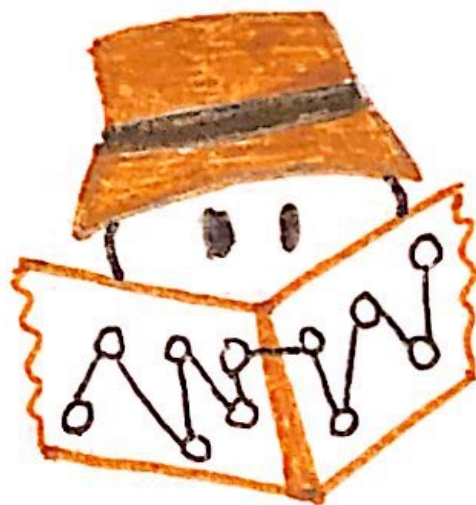


TRAVEL

THROUGH



TREES!



BY: AMANDA

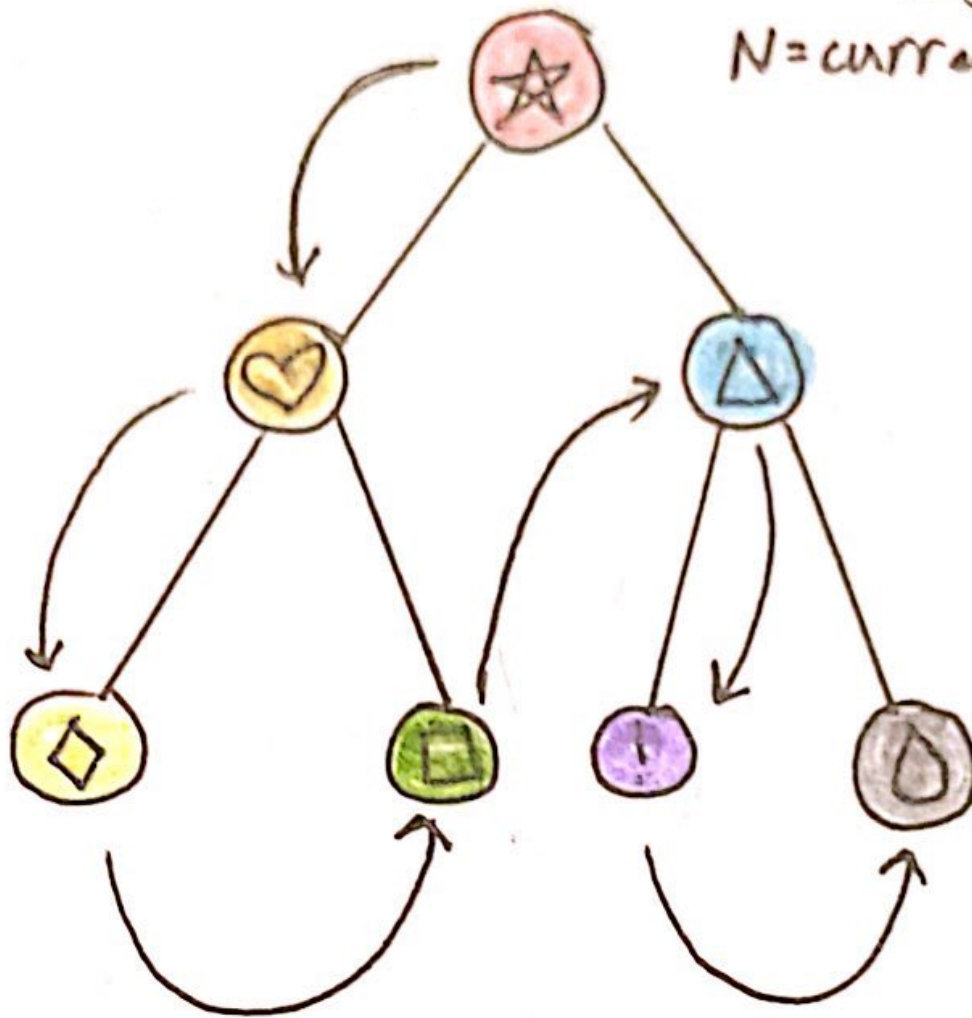
PIYAPANEE

2020

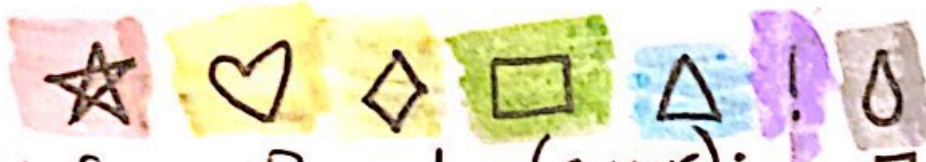
# PRE-ORDER

1. Root N
2. Left L
3. Right R

N = current node



Print Order:



```
def printPreorder(curr):  
    if curr:  
        print(curr.val)  
        printPreorder(curr.left)  
        printPreorder(curr.right)
```

Code in  
Python

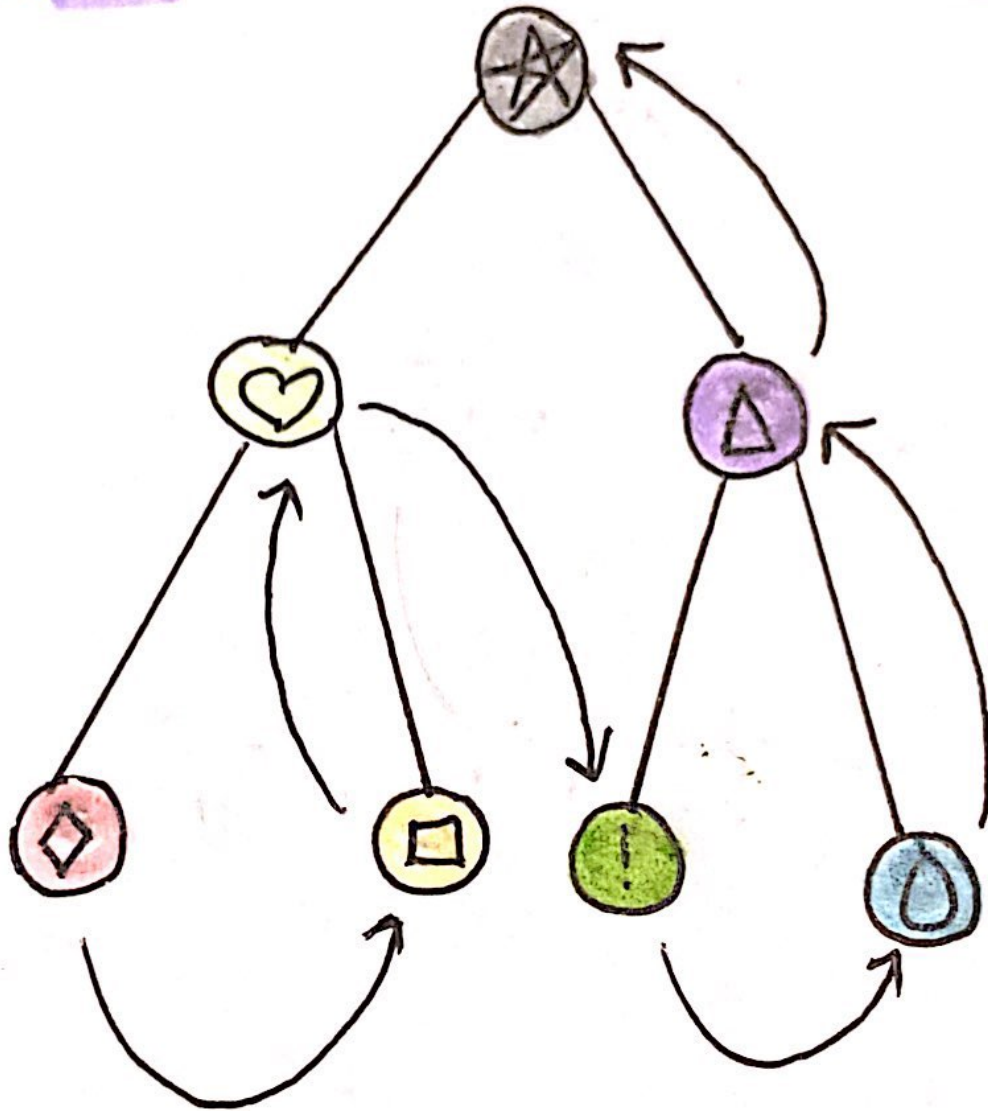
1. Left

2. Right

3. Root

LRN

# POST-ORDER



```
def printPostorder(curr):
```

```
  if curr:
```

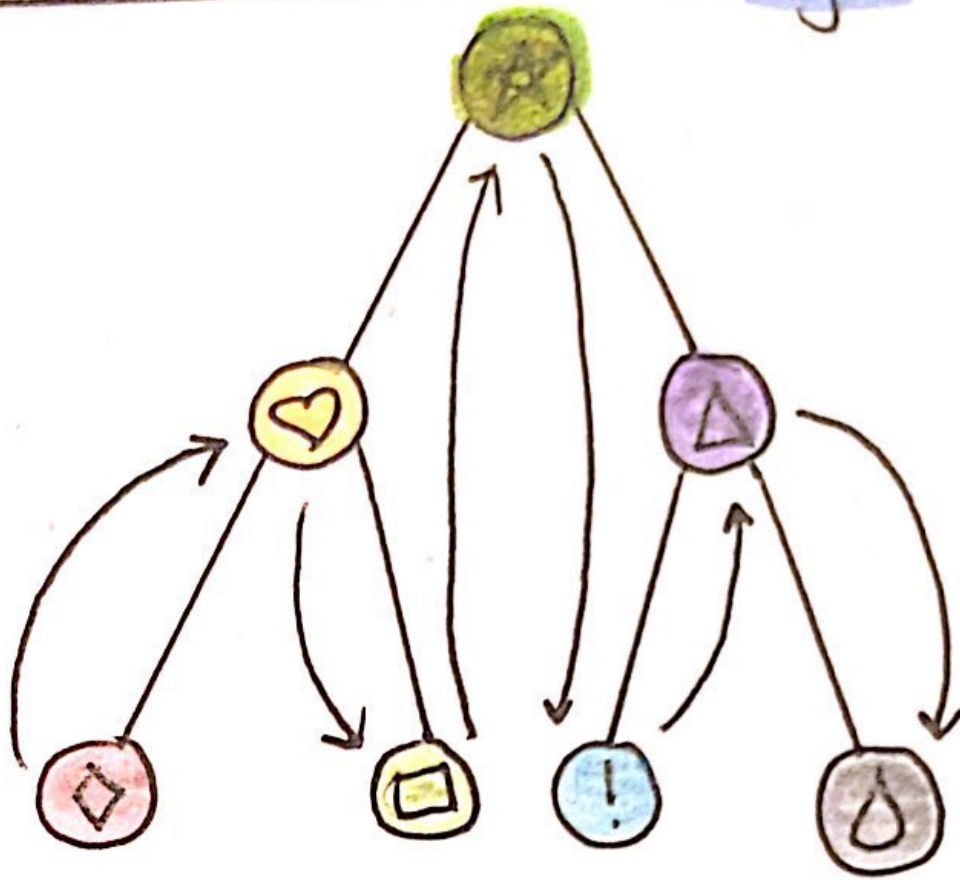
```
    printPostorder(curr.left)
```

```
    printPostorder(curr.right)
```

```
    print(curr.val)
```

# IN-ORDER

1. Left
  2. Root
  3. Right
- LNR



Print Order:

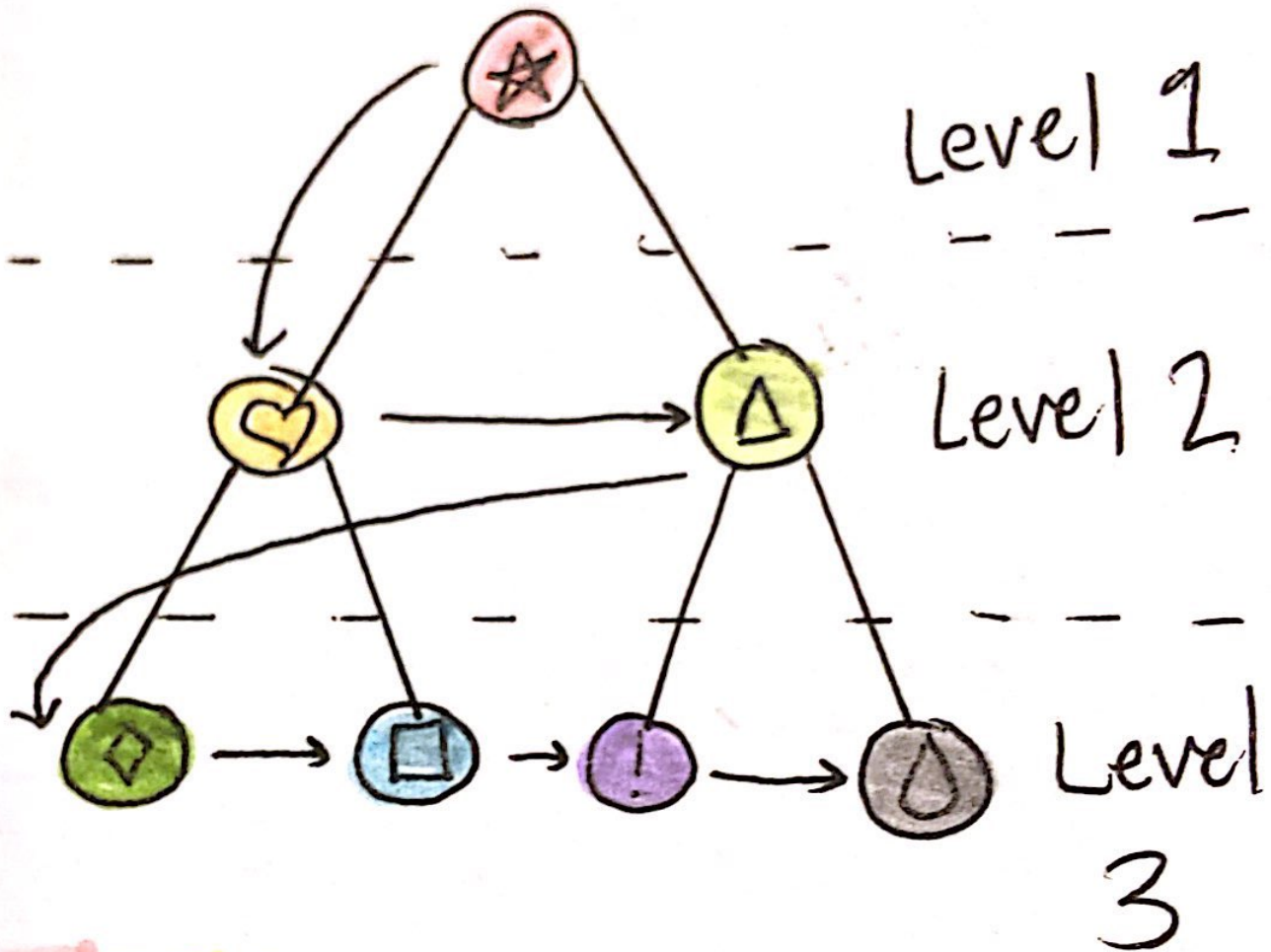


```
def printInorder(curr):  
    if curr:  
        print(curr.left)  
        print(curr.val)  
        print(curr.right)
```

Each Level:  
Left to Right

# LEVEL-ORDER

also known as BFS



```
def printLevelorder (root):
```

```
    if root:
```

```
        queue = [root]
```

```
        while len(queue):
```

```
            curr = queue.pop(0)
```

```
            print(curr.val)
```

```
            if curr.left: queue.append(curr.left)
```

```
            if curr.right: queue.append(curr.right)
```

```
# works on binary trees, but not on all trees
```