

BINARY SEARCH TREE

```
: def insert_in_bst(current_root, data):
    # empty tree
    if current_root is None:
        return Node(data) # this is the time when there is no more
    # further child available of current_root

    if data <= current_root.data:
        current_root.left = insert_in_bst(current_root.left,data)
    else:
        current_root.right = insert_in_bst(current_root.right,data)
```

49, 53

49

root node

our root node

53

call

insert_in_bst
insert_in_bst(49, 53)

PAUSE

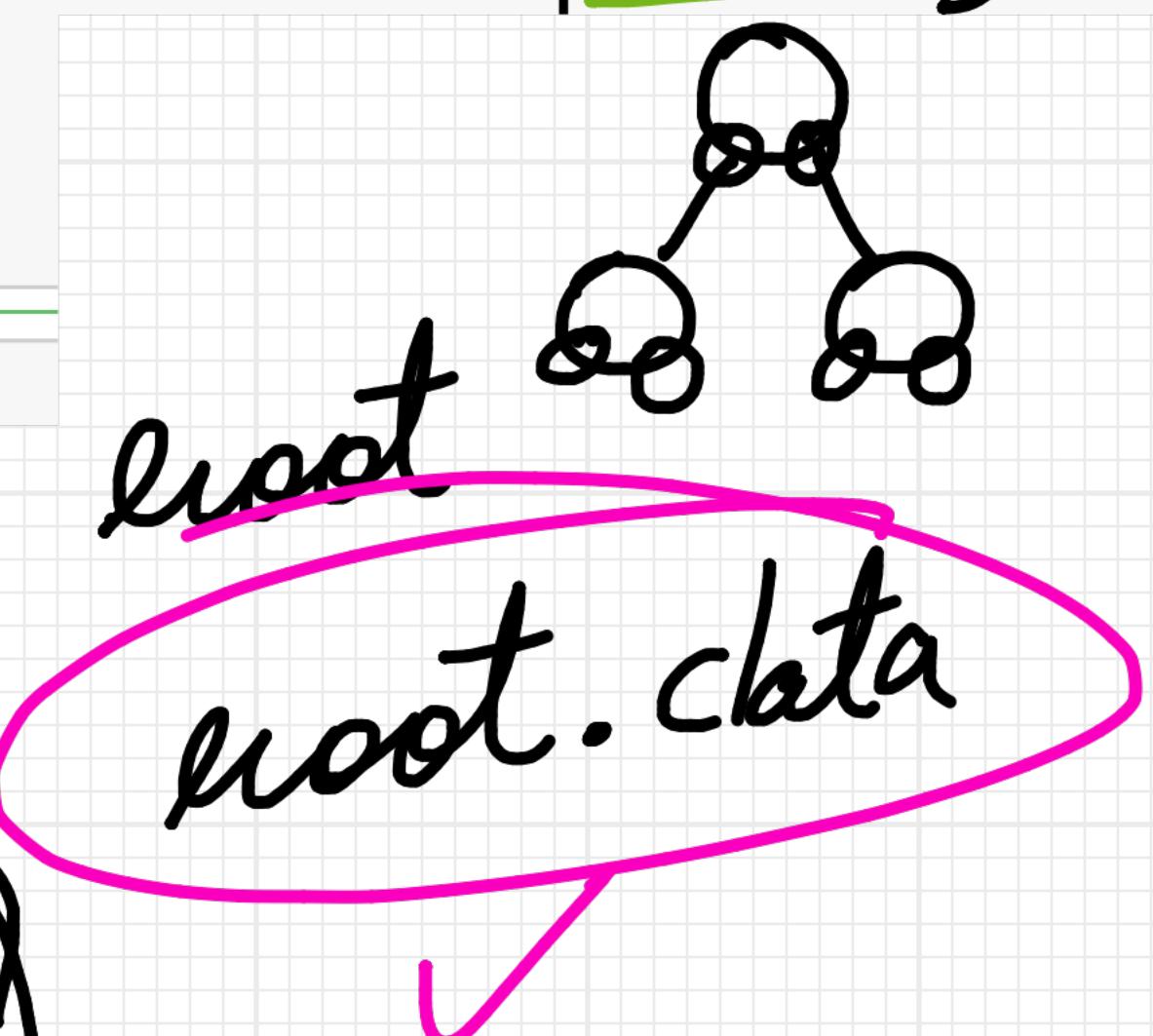
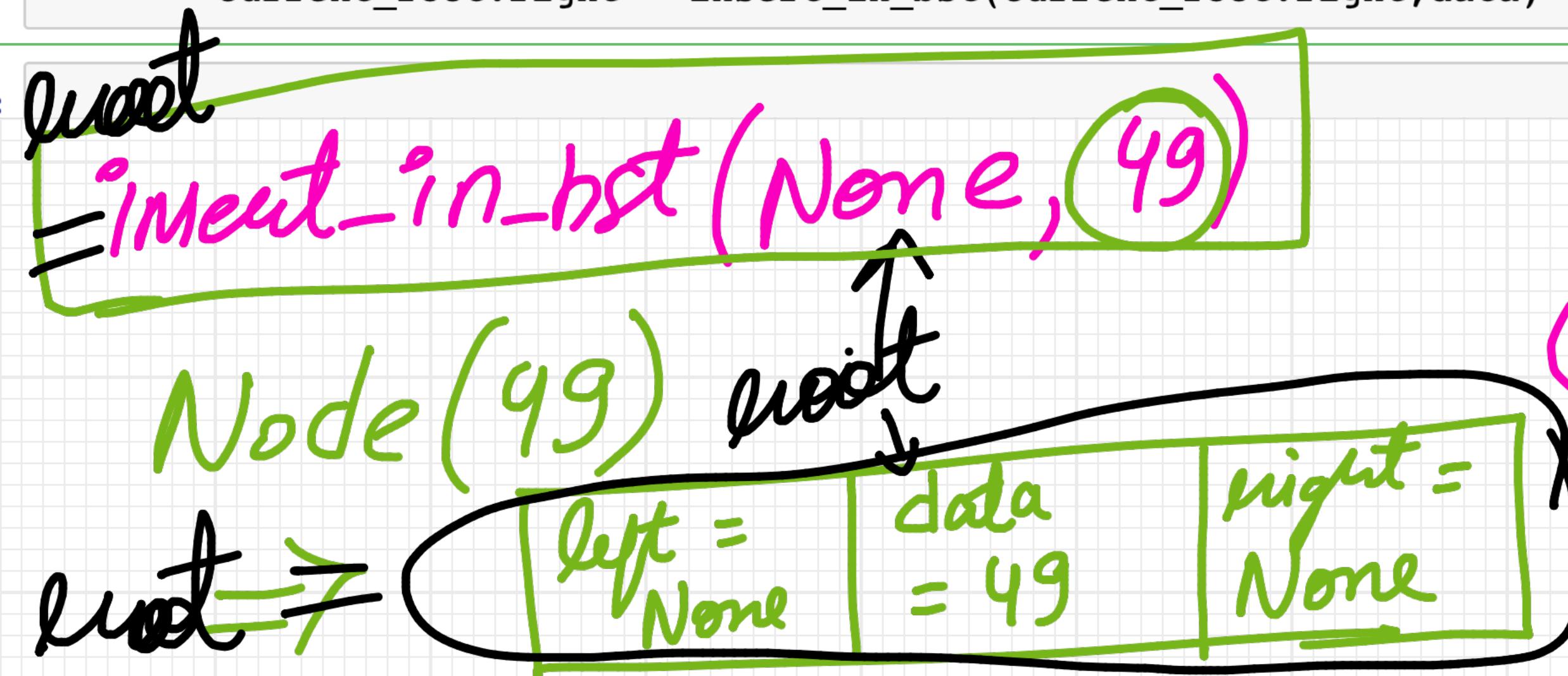
BINARY SEARCH TREE

```
def insert_in_bst(current_root, data):
    # empty tree
    if current_root is None: ✓ True
        return Node(data) # this is the time when
    # further child available or current_root
        .
    if data <= current_root.data:
        current_root.left = insert_in_bst(current_root.left, data)
    else:
        current_root.right = insert_in_bst(current_root.right, data)
```

: class Node:

```
def __init__(self, data):
    self.left = None
    self.right = None
    self.data = data
```

This is
Node object



BINARY SEARCH TREE

```
None 53  
def insert_in_bst(current_root, data):  
    # empty tree  
    if current_root is None:  
        return Node(data) # this is the time when tree is  
    # further child available of current_root  
    if 53 <= 99  
    if data <= current_root.data:  
        current_root.left = insert_in_bst(current_root.left, data)  
    else:  
        current_root.right = insert_in_bst(current_root.right, data)
```

: class Node:

```
def __init__(self, data):  
    self.left = None  
    self.right = None  
    self.data = data
```

root =

LEFT	DATA	RIGHT
None	99	49

current root

LEFT	DATA	RIGHT
None	53	None

insert_in_bst(root, 53)

insert_in_bst(None, 53)
insert_in_bst(root, 53)

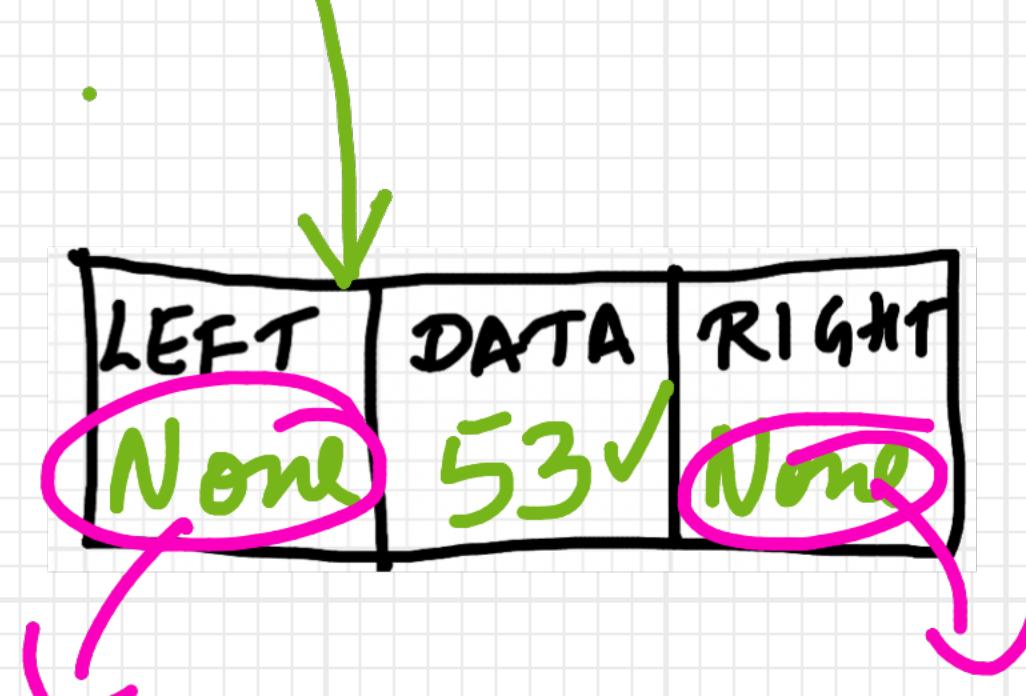
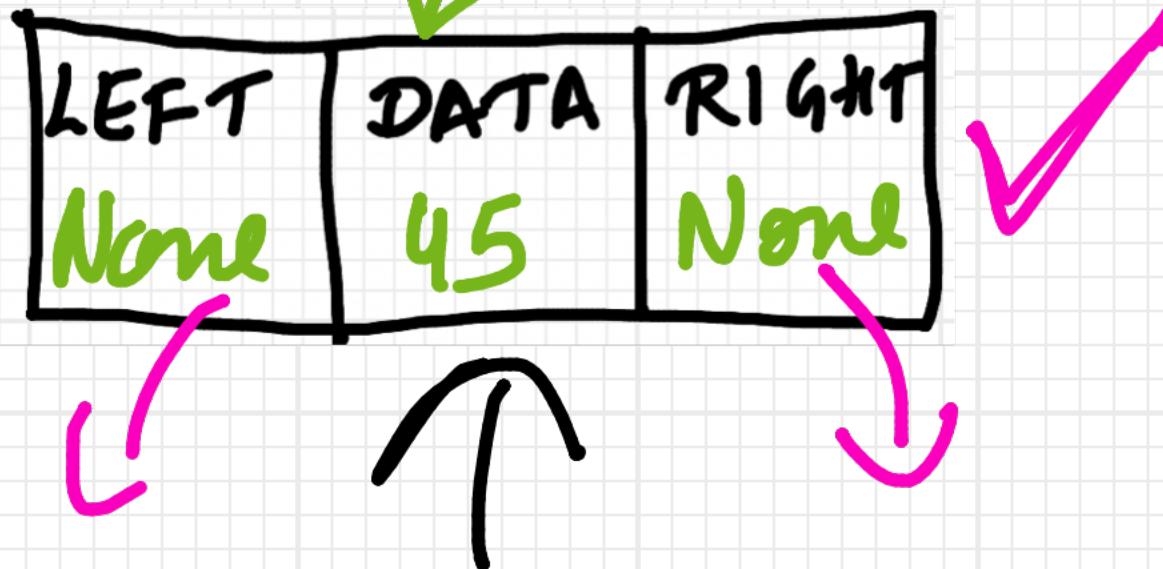
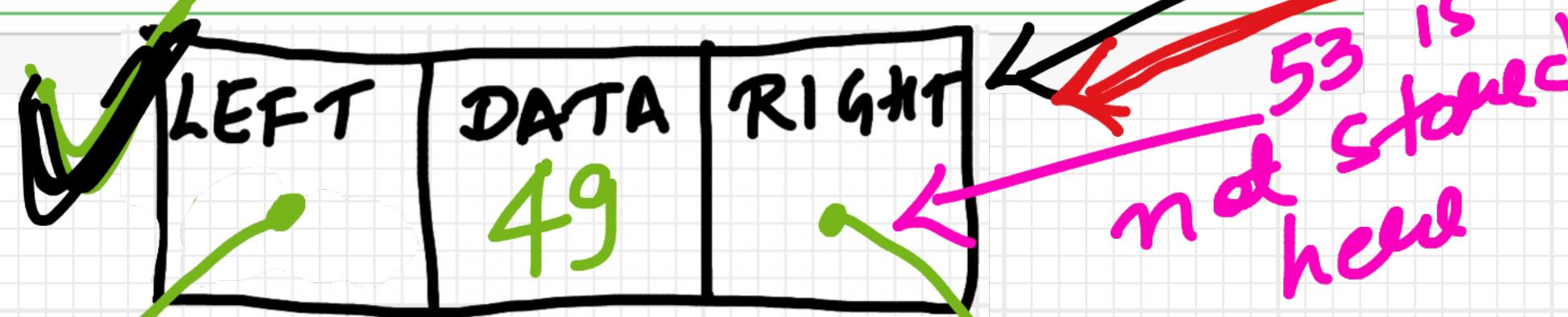
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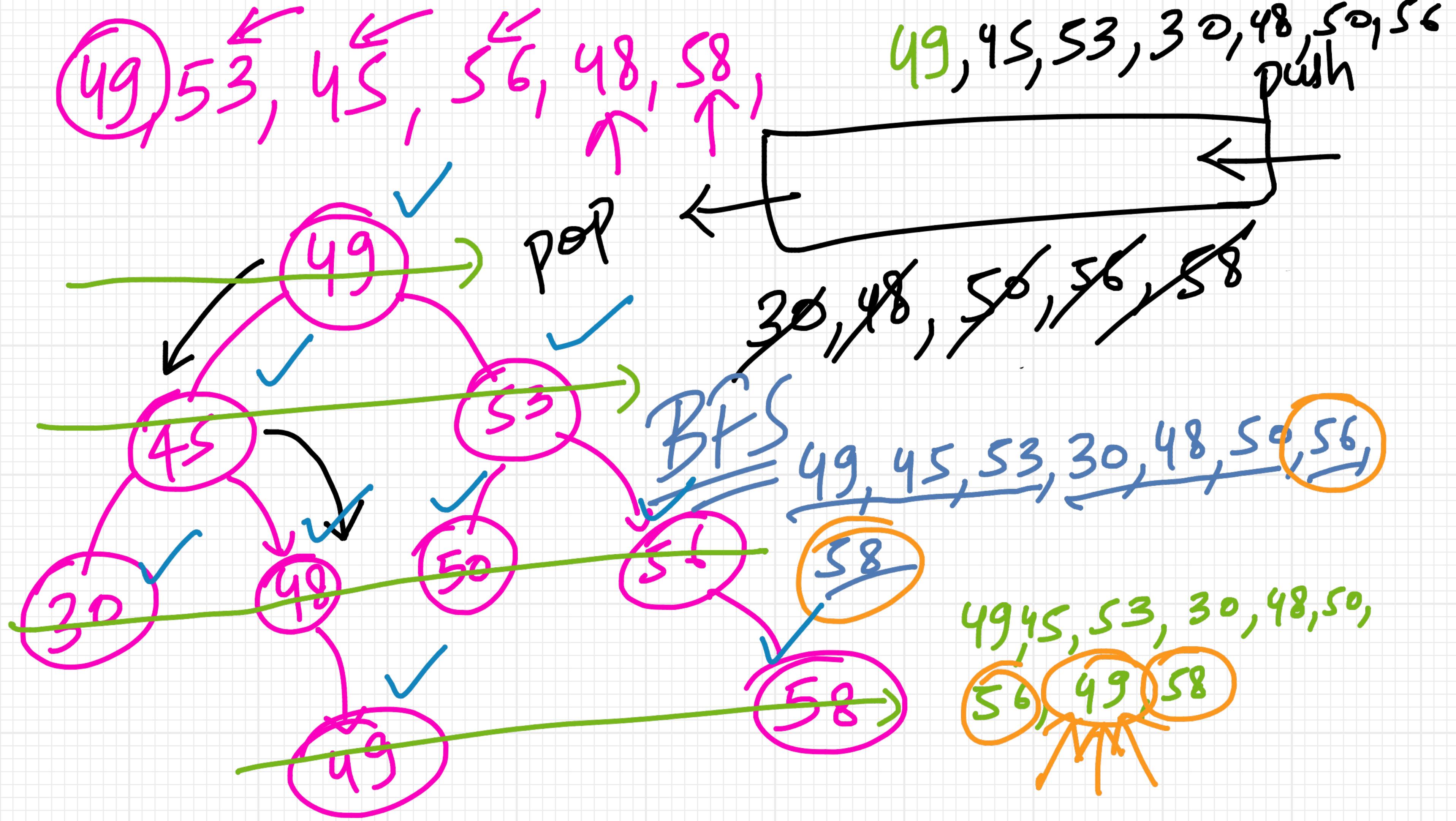
```

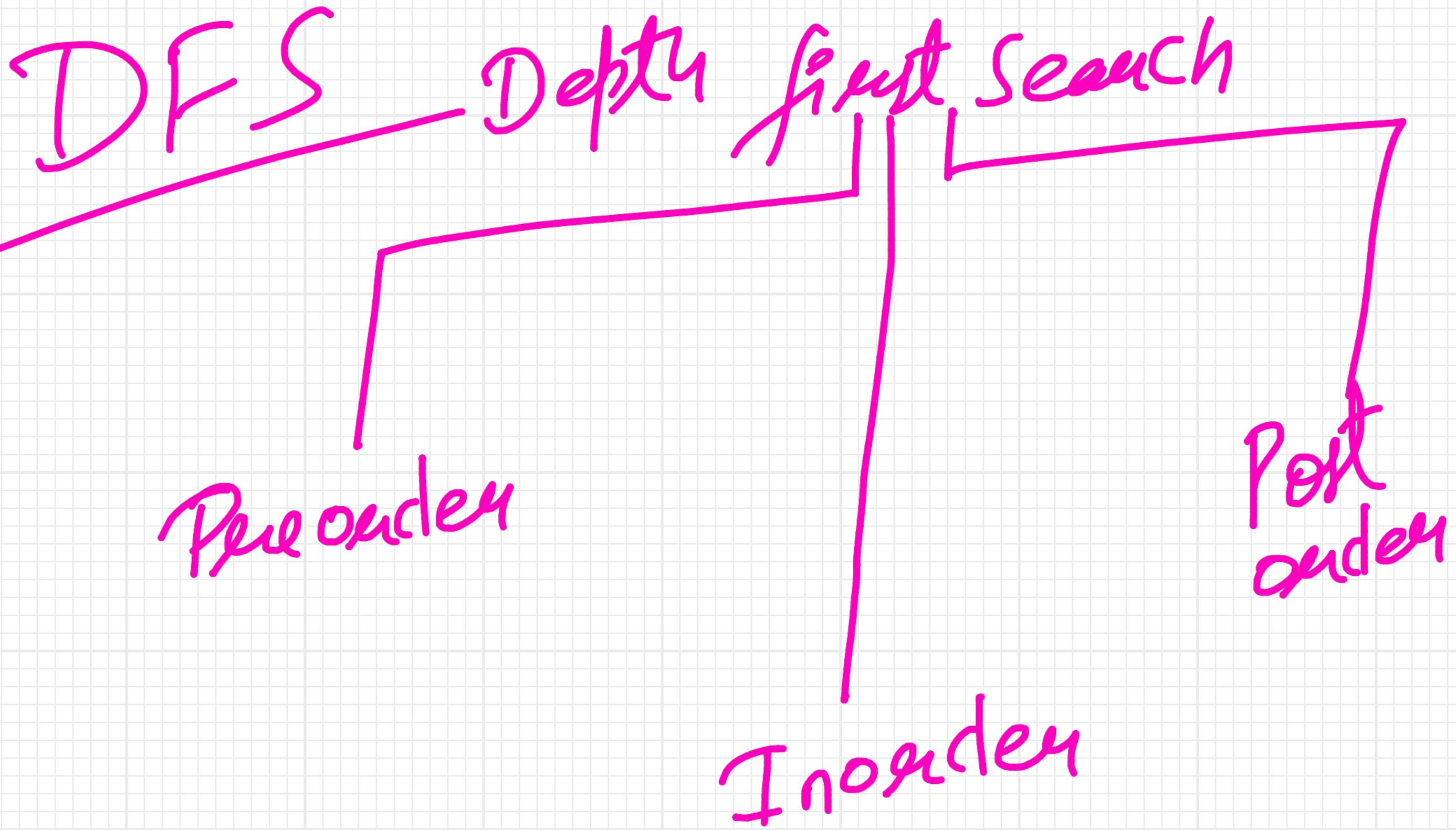
def insert_in_bst(current_root, data):
    # empty tree
    if current_root is None:
        return Node(data) # this is the time when there is no more
    # further child available of current_root
    → 45 <= 49
    if data <= current_root.data:
        current_root.left = insert_in_bst(current_root.left, data)
    else:
        current_root.right = insert_in_bst(current_root.right, data)
    
```

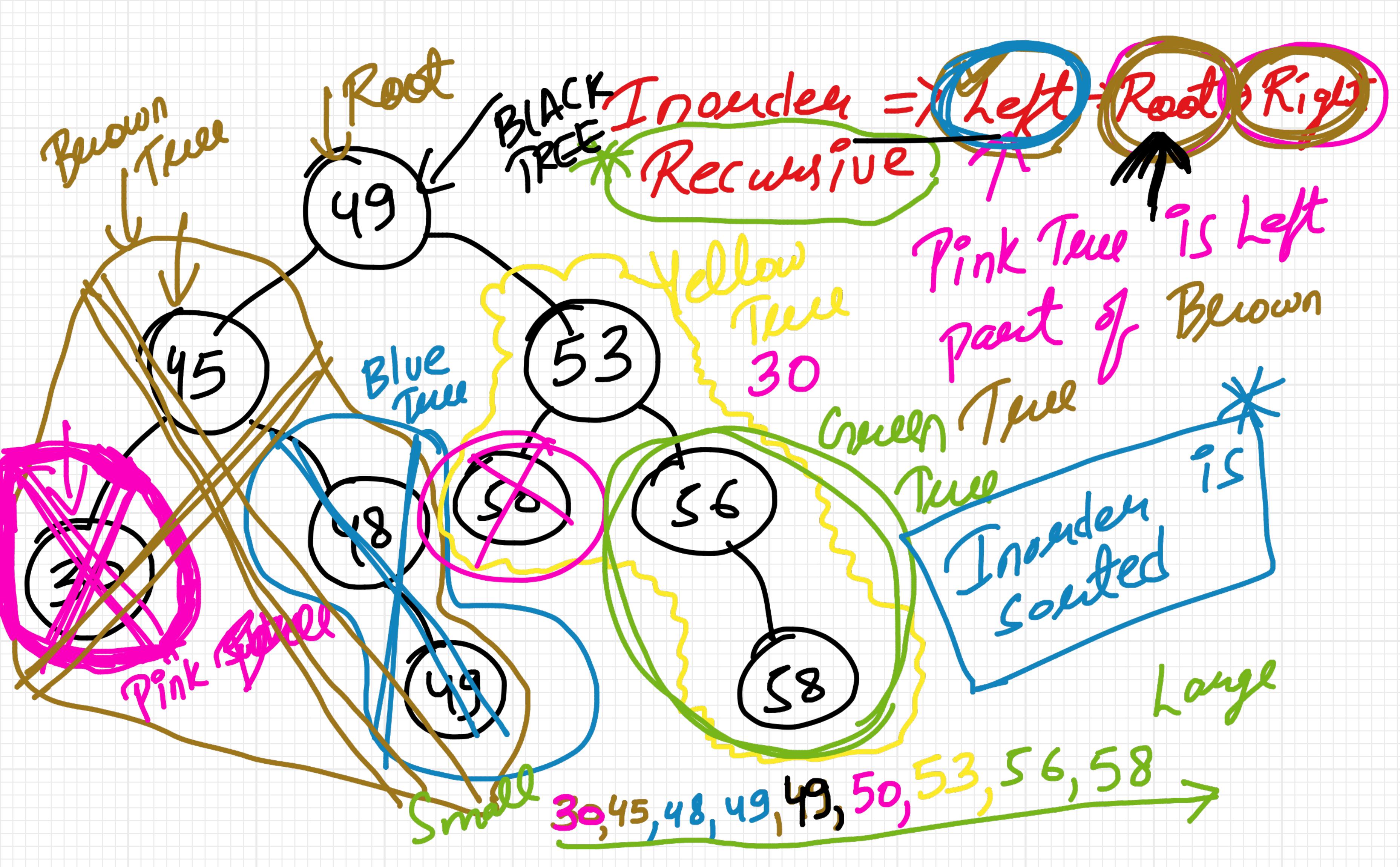
insert_in_bst(root, 45)

root current_root
?insert_in_bst(None,
45)



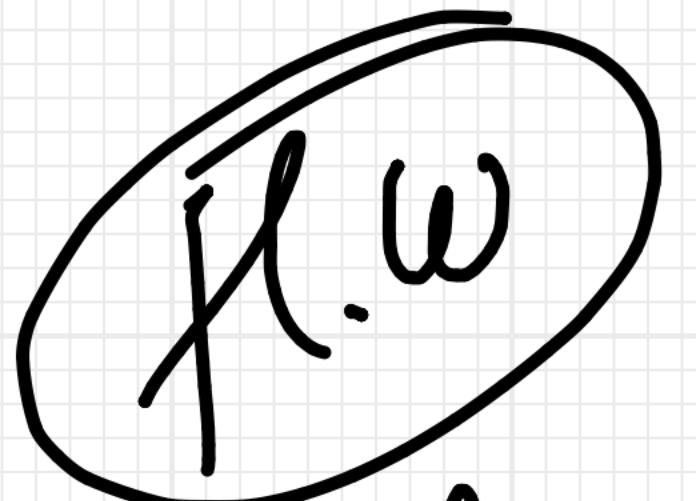






Peel bender

Root Left Right



Post bender

Left Right Root