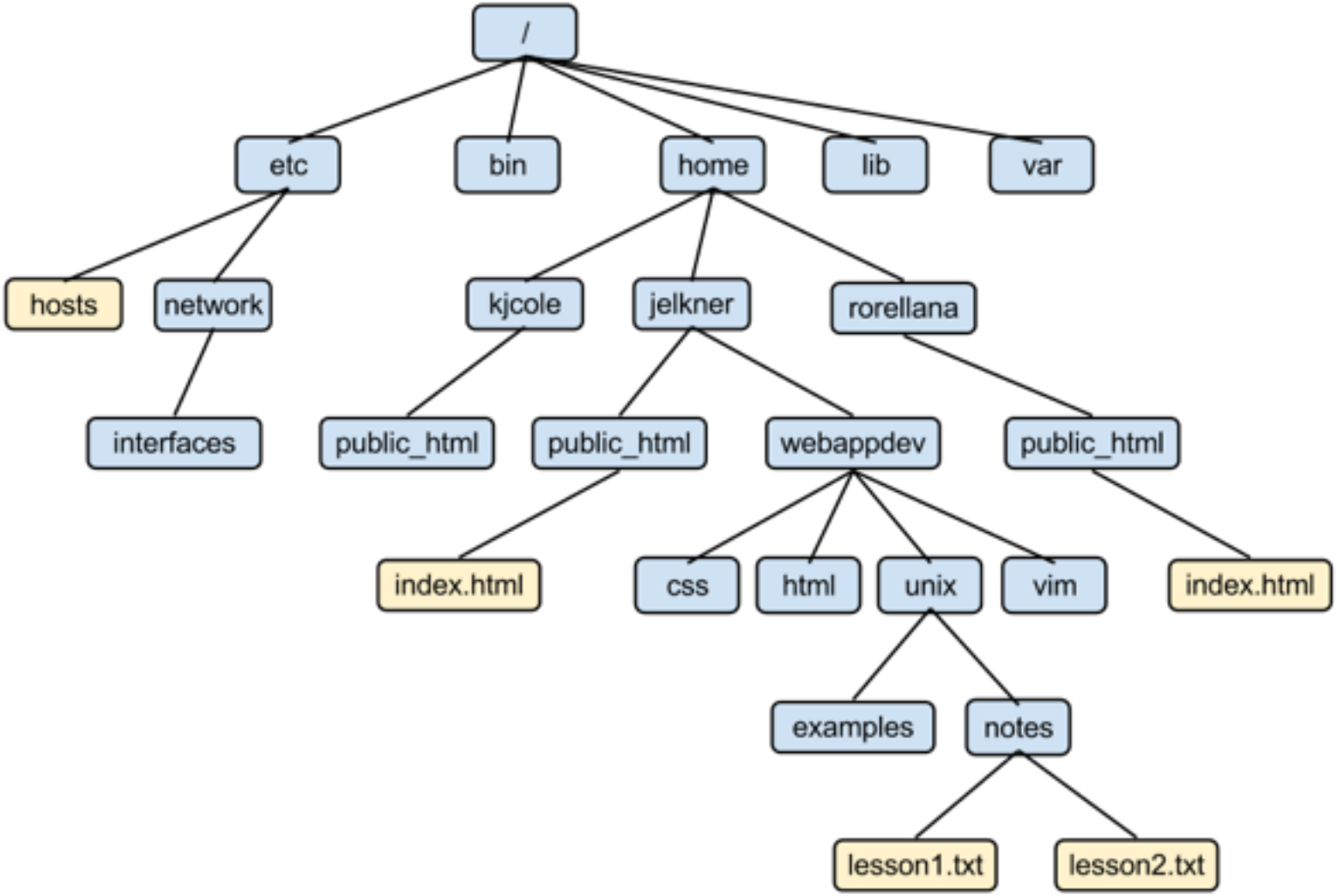

GoCode
We learn by doing, by falling down,
and by picking ourselves back up
HTTP://GOCODENOW.COM

Tree


/
etc
bin
home
lib
var
hosts
network
kjcole
jelkner
rorellana
interfaces
public_html
public_html
webappdev
public_html
index.html
css
html
unix
vim
index.html
examples
notes
lesson1.txt
lesson2.txt

Binary Search Tree

1) Binary search tree is faster to keep a sorted list.

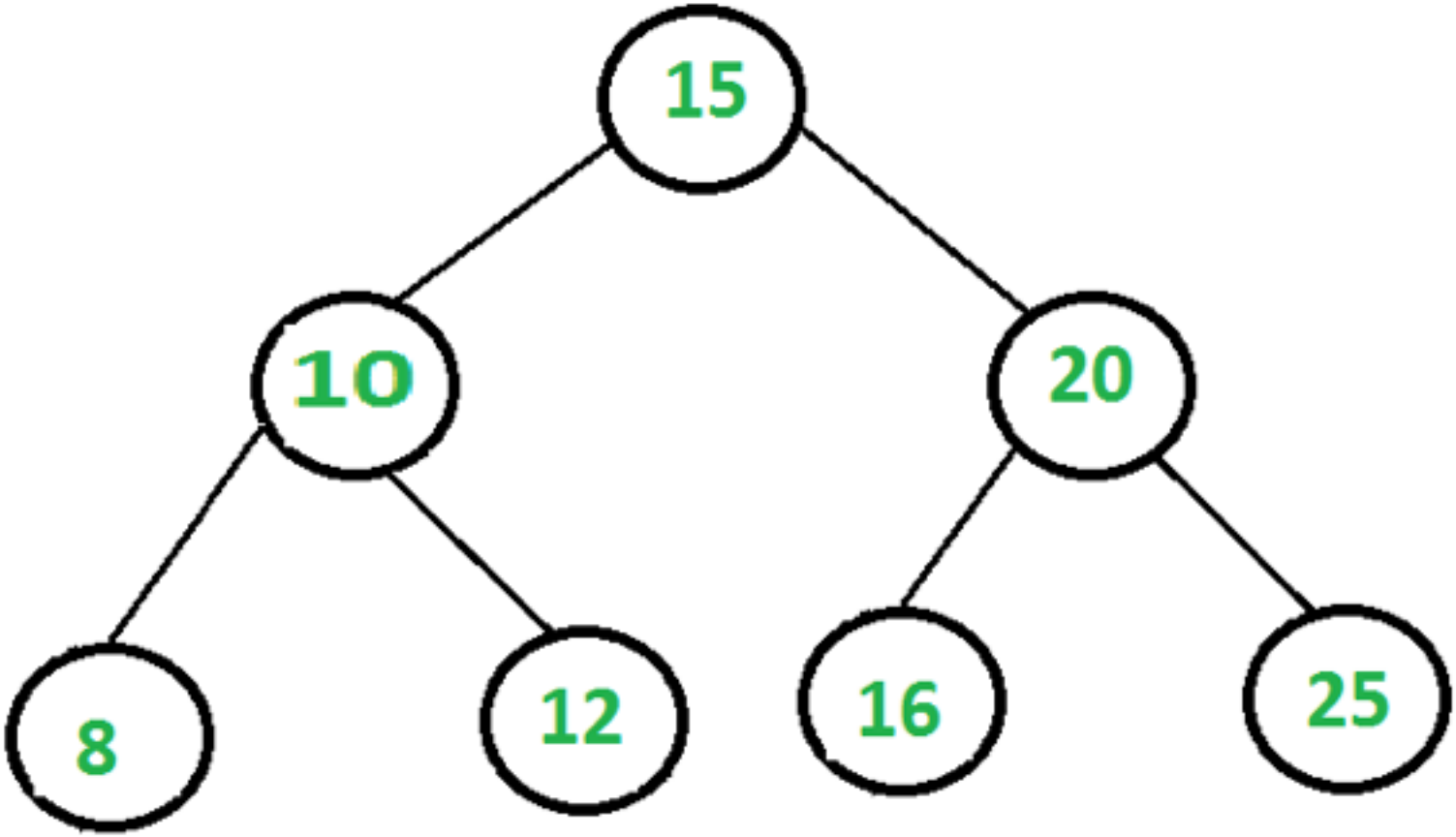
2) It does this by always keep the tree balanced.

3) Each node has two children, left and a right.

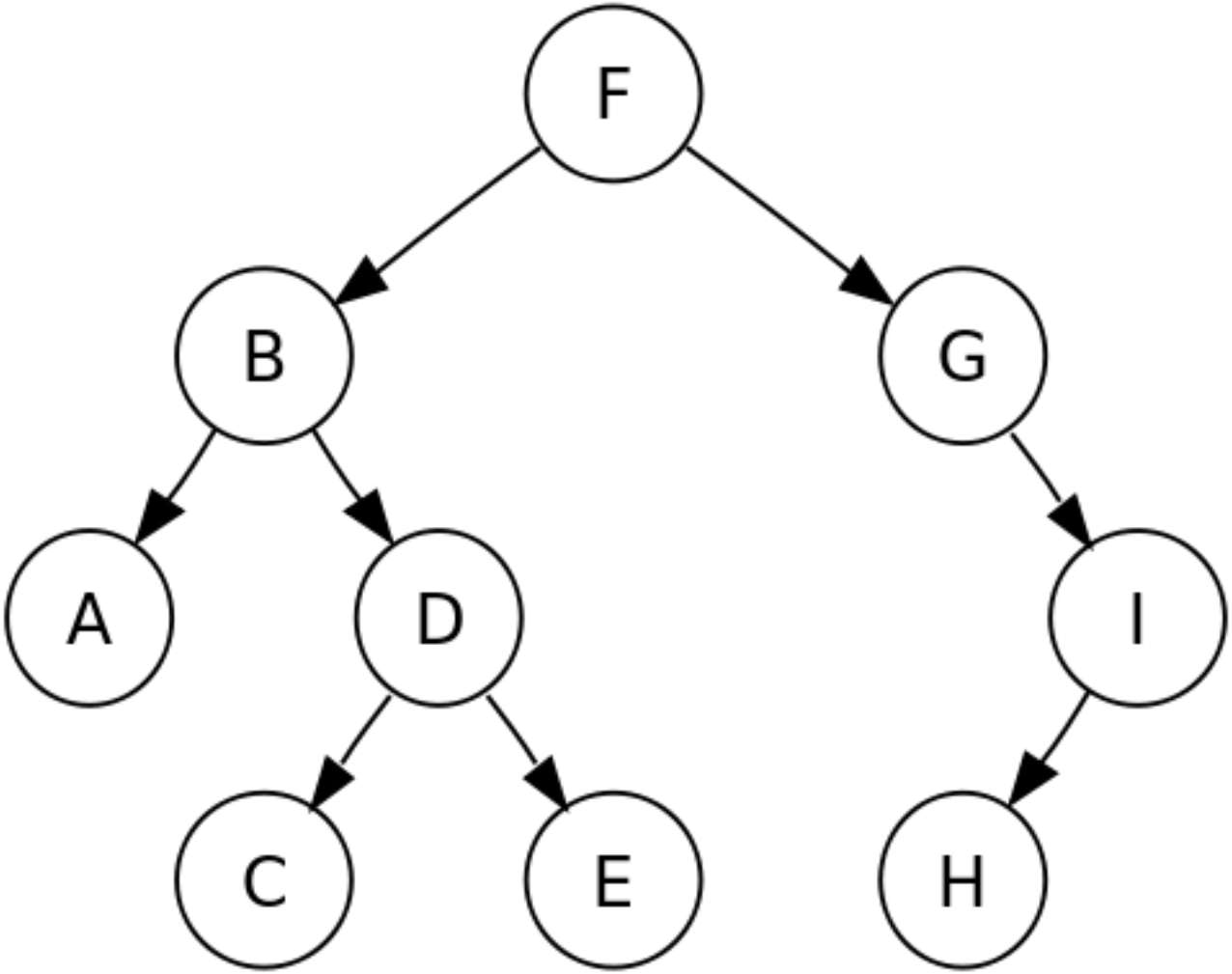
4) Left is “lower” than that node.

5) Right is “higher” than that node.

Trees



Trees



Binary Search Tree

Inorder: Go left
Print value
Go right

Preorder: Print Value
Go left
Go right

Postorder: Go left
Go right
Print value

Binary Search Tree

Binary Search Tree Big O

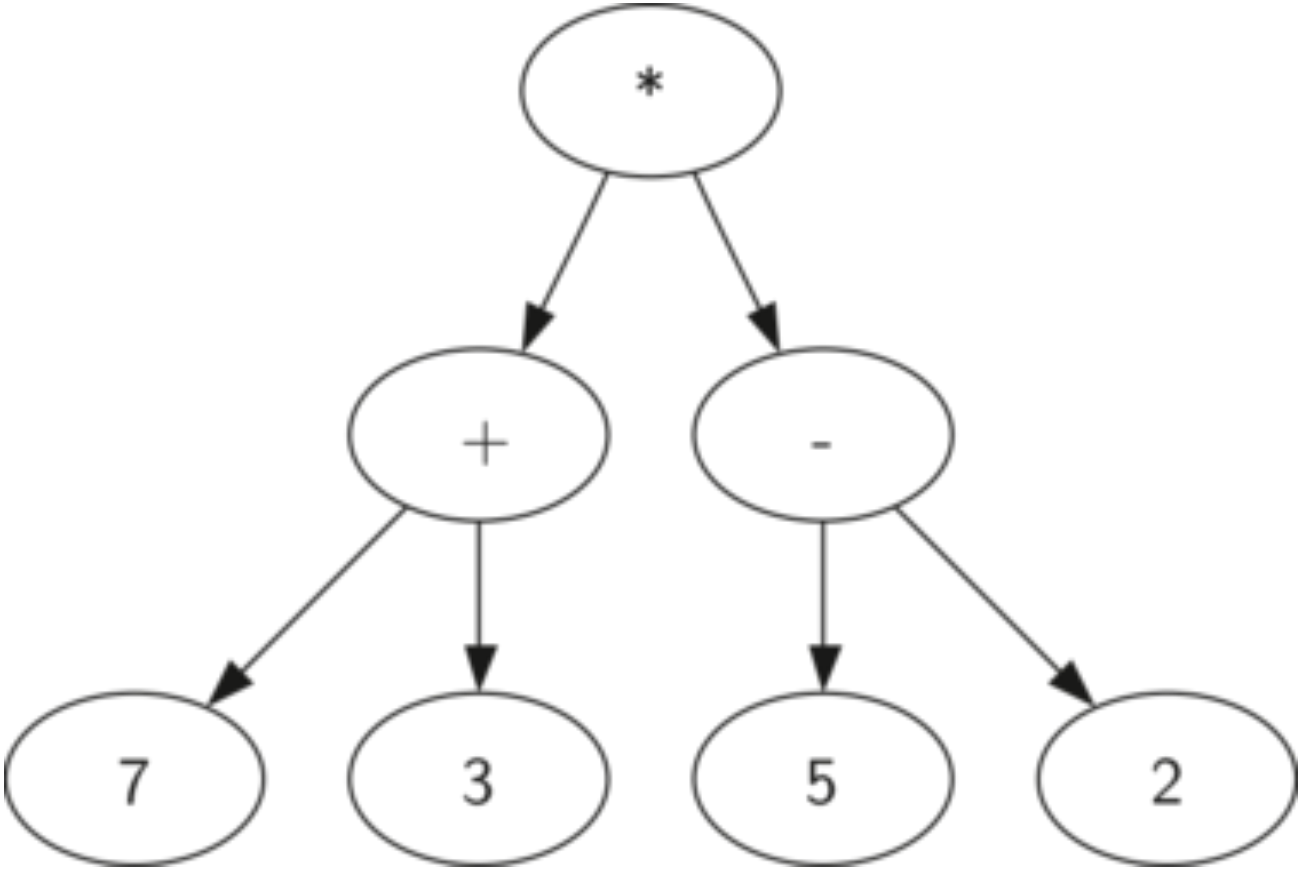
Average:

Lookup: **O(log(n))**
Insertion: **O(log(n))**

Worst Case:

Lookup: **O(n)**
Insertion:**O(n)**

Parse Tree



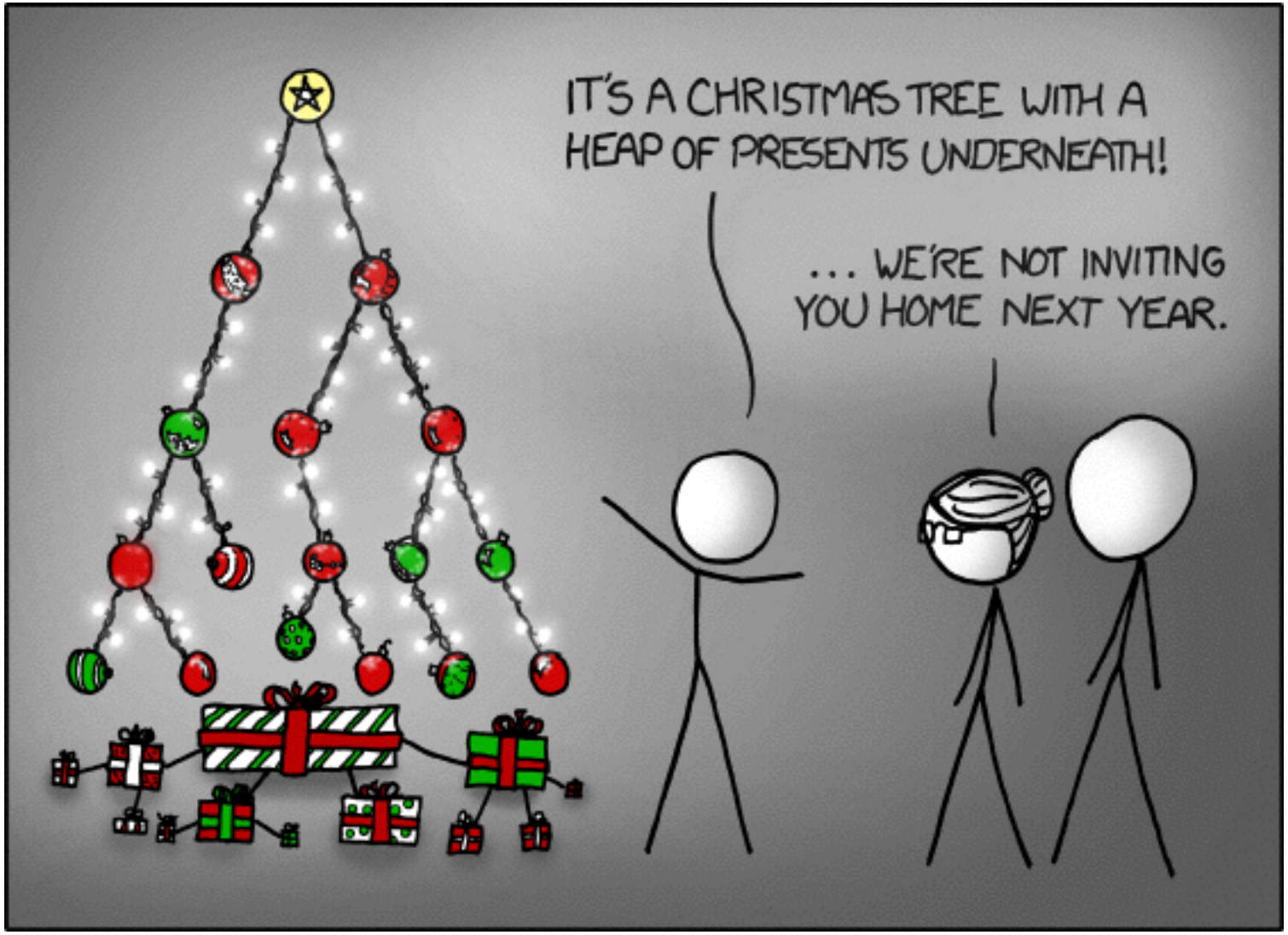
Key Points

1)A filesystem is just a tree

2)Fast lookups, but slower inserts

3)Many class of problems map to trees

Key Points


IT'S A CHRISTMAS TREE WITH A HEAP OF PRESENTS UNDERNEATH!
... WE'RE NOT INVITING YOU HOME NEXT YEAR.