

CS180 - AVL trees (2)

Note Title

11/21/2011

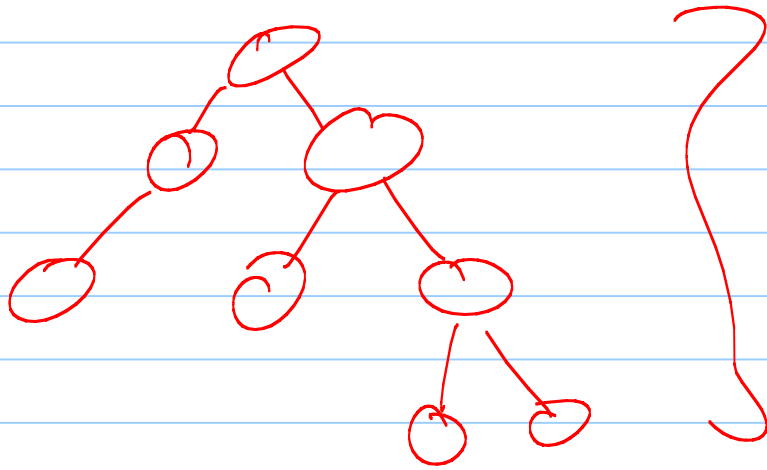
Announcements

- HW now due Mon
- Test next Friday
(review next Thurs)
- Lab tomorrow
- Boeing scholarships - due Fri.

AVL trees

Main property:

- height of children are within 1 of each other.

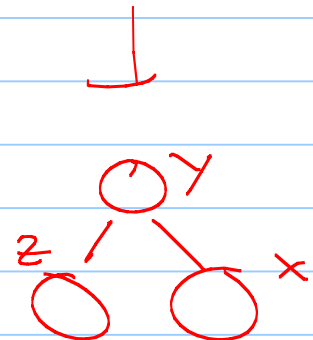
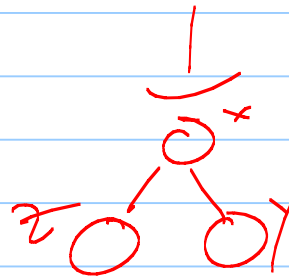
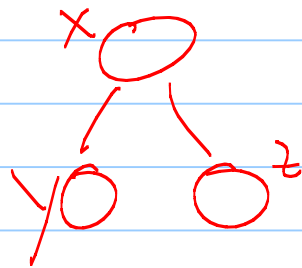
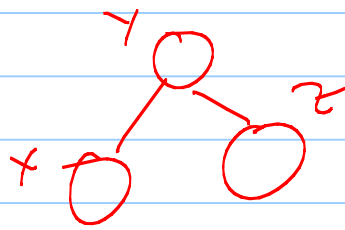
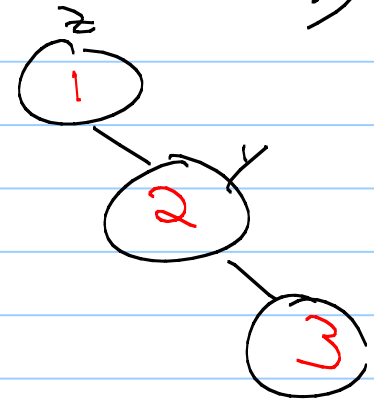
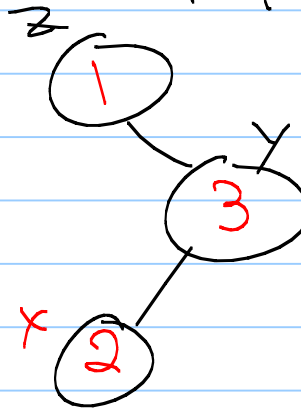
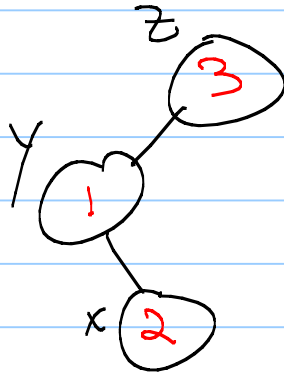
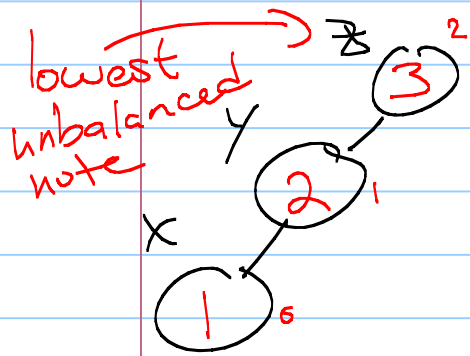


$$\leq 2 \lceil \log_2 n \rceil$$

Insert:

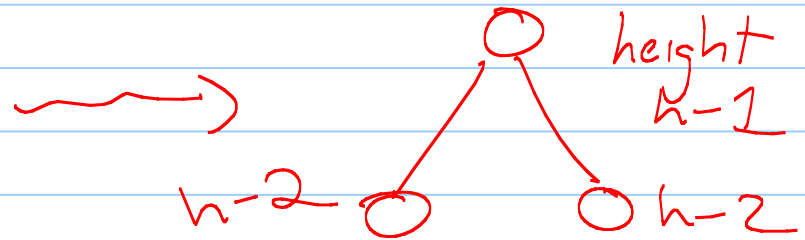
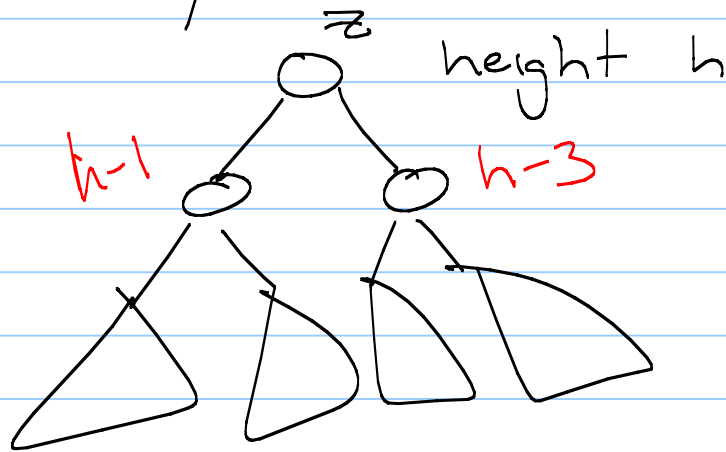
Consider $x, y, \& z$. How can we restructure?

(Hint: What is inorder traversal of these in each case?)



Note: Only have to rotate once!

Why?



So how can we code this?

Back to Binary Tree.h:

- pivot(it) will swap it
and its parent

