

More on Balanced Trees

4-17-2002

Opening Discussion

- What did we talk about last class?
- Do you have any questions about the assignments?
- Only one person got the minute essay from last time correct, but the reason is that I wasn't clear on the fact that rotations are done coming back UP the tree.

Black-Red Trees and AA-trees

- Your book also discusses both black-red trees and AA-trees which are other forms of balanced trees. You should strongly consider reading it.
- Today I'm going for depth instead of breadth. Instead of trying to zoom through the many rules of black-red trees we will code up some of an AVL tree.

Code

- We are going to write as much code as possible of an implementation of an AVL tree. We will look closely at the methods for doing rotations to see how they can be implemented and what the deficiencies of the two possibilities are.

Minute Essay

- We will try another AVL tree. This time draw the AVL trees that result as we add these values to an empty tree: 1, 4, 8, 2, 3, 9.
- Hopefully you are making progress on your assignments. Remember I want everything you intend to turn in by the second reading day.
