Homework Assignment #6 – 2-3-4 Tree Class Implementation (Part 2)

by Evan Olds

Cpt S 223 – Advanced Data Structures

Submission Instructions:

Submit source code (zipped) to Angel BEFORE the due date/time. If the Angel submission is not working, then submit to TA via email BEFORE the due date/time.

Optional: Include a readme.txt file in the zip with any relevant information that you want the grader to be aware of.

Assignment Instructions:

Read all the instructions *carefully* before you write any code.

Continue where you left off on homework 5 for this assignment.

Implement the Remove function for the 2-3-4 tree (10 points):

The project files from homework 5 have the declaration (but not implementation) for the removal function. You must correctly fuse nodes and handle all fusion cases:

1. Take from left child
2. Take from right child
3. Take from parent
4. Fuse root if the above three are not options

Use the removal scheme that is an inverse of the insertion scheme: while traversing through the tree for a removal, if you encounter any node that has only 1 value in it, then fuse.