Data Structures Homework #6 Due: Sunday, April 25, 2010

For this assignment, you are to re-implement homework #5 two ways:

1) implement the dictionary ADT using the same hash table (HashMap) from Lab 12

2) implement the dictionary ADT using the same hash table (HashMap) from Lab 12, except each slot contains an AVL instead of linked list.

After you complete your two additional implementations, complete the following timings using your programs and the same data files as homework #5:

Program	Stop Words Hash Table Size	Concordance Hash Table Size	Execution Time (seconds)
HashMap with linked list at slots	3,000	200	
HashMap with AVLs in slots	3,000	200	
HashMap with linked list at slots	1,500	100	
HashMap with AVLs in slots	1,500	100	
HashMap with linked list at slots	750	50	
HashMap with AVLs in slots	750	50	
HashMap with linked list at slots	375	25	
HashMap with AVLs in slots	375	25	
HW #5 with single BST	-	-	
HW #5 with single AVL tree	-	-	

DATA FILES

The stop words are in the file

http://www.cs.uni.edu/~fienup/cs052s10/homework/stop_words.txt

The textual information to be examined is in the file

http://www.cs.uni.edu/~fienup/cs052s10/homework/hw5data.txt

HINTS:

0) The word-concordance application code and each dictionary ADT should be developed and tested separately.

1) A user-define or STL queue ADT may be useful to store the lines-of-occurence for each word.

SUBMISSION

You are to submit a single zip file containing:

- a one page overview of the design of your program, the above completed timing table, and directions for running your program, and
- all of your program files