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COSC 2436

6/19/17

Design Document A7

Byte Array is created

Start Time

Sort Using Heap Sort

End Time

Print Completion Time with number of elements sorted using Heap Sort

Reset Time and Restart Start Time

End Time

Sort Using Bubble Sort

Print Completion Time with number of elements sorted using Bubble Sort

Purpose:

Program will implement Heap Sort and a slow sort, Bubble Sort. The program will generate a very large array (30,000 or more) of bytes and sort increasingly larger portions of the array (5000, 10000... 30000) with both algorithms.

Pseudo Code:

* 30000 element Byte array is created (another Byte Array is created which Increments by 5000 elements in program till it reaches the max 30000 elements this was a list of execution times can be compared with number of elements being sorted.)
* Time starts running
* Byte array is sorted using Heap Sort
* End Time
* Print Completion Time with number of elements sorted using Heap Sort
* Reset Time and Restart Start Time
* End Time
* Sort same Byte Array Using Bubble Sort
* Print Completion Time with number of elements sorted using Bubble Sort