CS 2420  
Assignment

Heaps

# Purpose to familiarize you with Heaps

# Tasks

* Create a Heap Class
  + Member variables
    - array
    - etc. (you can figure this out.)
  + Constructor
  + Destructor
  + void Insert (int item)
  + int RemoveFront()
  + void print
    - just print the array
  + void print-tree
    - Print the heap as a tabbed tree.
      * This will require some thinking on your part.
      * Similar to the print of the BST.
* Create a driver
  + Create a global HeapSort function using the Heap.
    - This should take an array and a size of the array as parameters
    - Should create a heap as a local variable and use it to sort the array that was passed in.
  + Create an interactive driver similar to the ones used in other projects
    - Feel free to start with one of those and adapt it to this.
    - Be sure to include an option to create a random array
      * A small one.
  + Test all public functions

# Turn in

* Code (.h and .cpp files)
* Windows executable