CS 171 Assignment 5, Due on Oct.16th

1. Priority queue without explicit links. Implement a priority queue using array. And your implementation should support the following operations:

a) Insert(Insert), delete the maximum(deleteMax), and delete the minimum(deleteMin). All of them are in logarithmic time.
b) Find the maximum(findMax) and find the minimum(findMin). Both are in constant time.
c) The resizing resize should also be included.

(Hint: use two private priority queues; this is methodName.)

2. Priority queue with explicit links. Implement a priority queue using a heap-ordered binary tree, but use a triply linked structure instead of an array. You will need three links per node: two to traverse down the tree and one to traverse up the tree. Your implementation should guarantee logarithmic running time for operations insert and deleteMax, even if no maximum priority-queue size is known ahead of time. You may include other private helper methods in your program.