**CS311 Printer Queue Extra Credit Assignment [10 points]**

**Must email the code and test results to Rika prior to Week 13.**

**Presentation is due prior to Week 15. Sign up for a date when you email the work**

**Implement a printer queue as a heap tree but use an array instead of links and nodes.**

**Required functions:**

* Insert a job – this will add a new job to the array (note this works the same way as the heap tree construction via insertion)
* Print a job – this will remove the front job and display its priority number.
* Reheapify – this will re-heapify the array after a job has been printed
* Display the queue – display the content of the array

**Required functionality of main:**

* Add 10 jobs in a random order of priority
* Display the queue
* Print a job and reheapify
* Display the queue
* Print a job and reheapify
* Display the queue
* Add 2 jobs in a random order
* Display the queue

**Required testing:**

Run it at least twice with different jobs

**Required Presentation:**

Show your code to the class and explain how each major function works.

Run your program.