CSSE 230 Day 30

That's all folks.

Let's revisit the "Big picture", with understanding

THE **BIG** PICTURE
CSSE 230 – DATA STRUCTURES AND ALGORITHM ANALYSIS

Applications:
(10%)

ADT: (15%)	List	Stack	Queue	PriQ	Set / Map (key/value)	Graph

Implementation Choices

(heap) (hash) (circular) (2D)
Array-based
(20%)

Object/pointer-based
(40%)

Algorithms:
(15%)

List	ArrayList	LinkedList	EditorTree (with ranks)
Diagram			
Access by index			
Insert/remove at end			
Insert/remove at iterator position			

PriorityQueue	Heap
Diagram	
add	
findMin	
deleteMin	

Course Evaluations on Banner

‣ Numbers are nice, but written explanations are much better

‣ Focus:
  ◦ Did you learn a lot?
  ◦ Are there things you know/can do now that you didn't/couldn't at the beginning of the term?
  ◦ What about the course/instructor enhanced your learning?
  ◦ What about the course/instructor were barriers to your learning?

  ◦ Be as specific as possible.

Some Final Thoughts

- Data is at the heart of software.
  - The companies you may work for agree!
  - The data is the "irreducible complexity" of the code.
- This class has been very "heads down."
  - Getting the algorithms right.
  - Making good OO design choices.
  - There will be more course work like this (CSSE304, 473)
- You also need to be "heads up."
  - Like the ethics assignment you did.
  - Understanding requirements means knowing the clients and users! (CSSE 371)
- Most upper-level courses require some of each in projects

- Interview tips:
  - http://jetheis.com/blog/2011/12/08/five-less-mushy-technical-interview-tips/

Final Exam Details

- Format same as previous exams.
- You can bring two sides of 8.5" x 11" paper.
- Comprehensive, but more focus on last 3 weeks
  - 60% paper, 40% programming (90/60 points)
- Best preparation:
  - Written problems
  - re-do programming problems you struggled with on homework/exams

Final Exam topics

- Reading, programs, in-class, written assignments.
- Foci:
  - Binary trees, including EBT, AVL, red/black, and rank
    - Traversals and iterators, numeric properties
  - PriorityQueues, Heaps and heapsort
  - Issues in Hash table implementation
  - Graph implementations
  - Recurrence relations
  - Sorting algorithms and analysis
    - Algorithm analysis (O, θ, ω) in general
  - OO programming, using various data structures (lists, stacks, queues, sets, maps, priority queues)
    - +/- with ADT implementation options (like we did for PQ – be specific with answers)

What's left?

- Finish sorting races by 11:00 PM today (or use a late day).
- Since some students will not finish SortingRaces until late Friday evening, it is possible that it will not be graded before the exam.
- If there are issues with grades on old assignments, we should get them resolved as soon as possible.
- Final Exam Wednesday 1:00 PM
- Study, including taking the practice exam