CS 367 - Introduction to Data Structures
Thursday, July 16, 2015, Lecture 19

Course website: http://pages.cs.wisc.edu/~cstapleton/367/
Piazza: https://piazza.com/wisc/summer2015/cs367/

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Last Time

- Heaps (finish)
- Binary Search Trees

Today

- Binary Search Trees (cont'd)
- Operations: print, lookup, min/max, succ/pred, insert, delete
- PG3 Assigned

Next Time

- Last week in review
- Associative Arrays/Maps
- Binary Search Trees
- delete method (finish)
- Complexities
- Balanced Search Trees (intro)
Implementing BSTs

public class BST<E extends Comparable<E>> {

    private BSTNode<E> root;

    public BST() { root = null; }

    public void insert(E key) throws { ... }

    public void delete(E key) { ... }

    public void boolean lookup(E key) { ... }

    public void print(PrintStream p) { ... }

    ...

}
**BST print() method**

**Strategy:**

**Implementation:**
**BST lookup(E) method**

**Strategy:**

**Implementation:**
Implementing min/max on a BST

Finding successors and predecessors
Inserting into a BST

High-level algorithm/pseudocode:

Example
Deleting from a BST

High-level algorithm:

Example