CS180 - Binary Trees

Announcements

- Next program is up -
  due next Thursday

- use list STL
A Note on next Program:
Constant iterators: Why?

If we have const list, the compiler will object to normal iterators.

```cpp
class const_iterator:
    all same functions, but no live reference
```
Binary Tree class

We want to code a generic binary tree class. (linked)

Get basic functionality down & when we code later tree structures: Inheritance!
Brainstorm:

→ Private data?
  - size
  - root

Related classes/structs?

Node struct → data
  - parent pointer
  - child pointers
  - aux

Iterator implementation
  - left, right, parent, is leaf, is root, etc.
Functions?

remove:

remove and promote left

right

protected functions:
- copy subtree
- remove subtree
Note about text book:

"leaf" is actually an internal node:
char a = 'c';
char b = b(a); b, q | c | l75