Day's Goals
Monday, February 5, 2018 9:56 AM

linkedList3.cpp in G-drive

- Finish up with struct based LL approach
  - Deleting a node
- Classes/Objects Intro

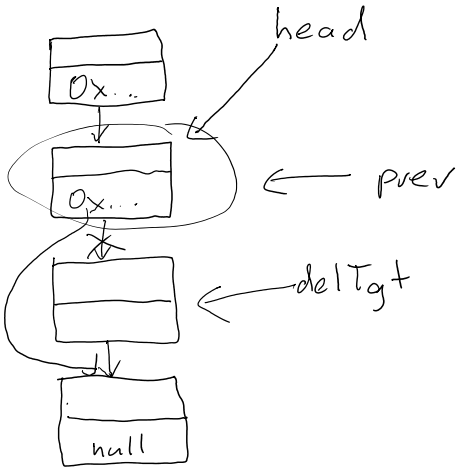
Deleting a node from existing LL

e.g. delete specified node

```
if ( specified node == head )
{ 1) update head to point
     to head->next
  2) free specified node
}else{
  1) Find node preceding
     specified node

  2) Link previous node
     w/ new next node

  3) Deallocate memory
     for deleted node
}
```



Classes

Given a structure

```
struct Time
{ int hour;
  int minutes;
  string meridiem; // am pm
};
```

↓ main

```
Time t;
t.hour = 13; // compromised data integrity
```

```
int hour=13;
if hour>12 and hour<0
    error;
```

Error prone approach

If we had a way to embed data validation within the struct...

Classes and Objects

Class is a complex type just like struct. Instance of a class is an object.

Features of a Class

1. Complex type, has members
2. Can define member functions, called methods
   ↳ control access to member variables
3. Members can be private or public
   public - can be outside the class
   private - can only be accessed by class methods
   e.g. Cannot access private member inside of main()
4. Constructors are public methods used to initialize objects. They get the same name as the class.

Class E.G.

Create a class called Time12 for storing time in the 12hr format.

- 3 private members: int hour, int minute, string mer
- Constructor takes 3 arguments.
- Public method to display time