Lab 5

This lab comes to us from PSU, and has been used in their proficiency demo. It has been slightly modified, but the basic idea is still the same. Doing this lab should give you a good idea of what that PSU proficiency demo will be like.

Start with the code in `~lliang/cs260/labs/lab5`. You will want to copy it into a directory of your own.

File `supplied.o` contains code that can build, display, duplicate, and destroy a *circular linked list*. A circular linked list is like a normal linked list, except that the last node in the list points back to the first node in the list instead of containing a null pointer.

For this lab, you will need to write the following four functions in `clist.cpp`, and add function prototypes for them to `clist.h`.

- `int count(node * head)` *Iteratively* compute and return the number of nodes in the circular linked list.
- `int countR(node * head)` *Recursively* compute and return the number of nodes in the circular linked list.
- `int sum(node * head)` *Iteratively* compute and return the sum of the `ints` contained in the circular linked list.
- `int sumR(node * head)` *Recursively* compute and return the sum of the `ints` contained in the circular linked list.

You should build the app using the `make` utility, which is supported by the file named `makefile` provided in the directory.

For lab5 submission, copy the member function **`int countR(node * head) and int sumR(Node * head)`** implementation into lab5.txt, then append the output of the app to the file. ftp lab5.txt to your local machine and upload it to the Desire2Learn dropbox.

`./app >> lab5.txt`