Lab 5

Starting with the code in `~lliang/cs261/labs/lab5` You will want to copy it into a directory of your own.

File `supplied.o` contains code that can build, display, and destroy a *doubly lineked list*.

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

- `void duplicate(node * head, node *& newHead)`
  recursively create a copy of the source list with `head`. `newhead` is the head of the destination list.

- `int removeTwo(node *& head)`
  recursively remove all the 2s from the list

After implementing the two functions, you need to invoke the functions in `main.cpp` to test. Please label your output so that the result is clear. E.g. "duplicate copy of the list: " or "After removing all 2: "

Create a makefile for the project and build it. Make sure your clean target doesn't remove supplied.o

Run your program in valgrind and make sure there is no memory leaks assuming the executable file is named **`app`**

`valgrind --tool=memcheck --leak-check=full ./app`

For lab5 submission, copy the above member function 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`