Proficiency Test Midterm

Start with the code in `~lliang/cs260/proficiencyTest/midterm`. 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 *doubly linked list*.

For this test, you will need to write the following functions in `dlist.cpp`, add function prototypes for them to `dlist.h` and invoke the functions in `main.cpp`. You should label the output of your test, such as "the list after removal: " etc.

- `int countEven(node * head)`

  recursively compute and return the number of nodes that contains even number in the doubly linked list.

- `int removeEven(node *& head)`

  recursively remove all the nodes that contain even number in the doubly linked list and return the number of nodes removed

Create a makefile for the project and build it. Please don't forget the supplied.o when generating the executable. 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 **`main`**

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

For test submission, copy the above function implementation and any helper function you have into solution.txt, then append the output of the app to the file. ftp solution.txt to your local machine and upload it to the Desire2Learn Assignment dropbox.

`./main >> solution.txt //assuming the executable is called main`