

CptS 223 Micro Assignment #2 - Big Five

For this micro assignment, you must implement the "big five" class methods for the supplied LinkedList class:

1. Destructor
2. Copy constructor
3. Move constructor
4. Copy operator=
5. Move operator=

These interfaces are in the public: section and clearly marked. I have included an implementation of an ADT array in Array.h that implements these methods as an example. No, you can't copy/paste between the two and have it work. The Big Five methods are documented in the book's chapter 1 and in various places on the Internet. Here's a couple of examples trying to show general solutions:

http://en.cppreference.com/w/cpp/language/rule_of_three

<http://www.cppsamples.com/common-tasks/rule-of-five.html>

Each of the Big Five (or Rule of Five) interfaces, plus the initializer list interface, are noted with the comment string "MA TODO" in LinkedList.h. Each of the interfaces should take no more than 8-10 lines of code, and some as small as 3.

Included in main.cpp is a test function for the linked list data structure. Be sure that your edits make this test function work correctly. As you complete the interfaces, you'll find that these tests will output the proper values, including the destructor. I keep a pointer to a list's contents, destroy the list, then print out the list contents. Yup, that's dangerous as long as you don't implement it correctly. The Makefile gets the better g++ compiler on the EECS SSH servers and the commands to build and test are the usual "make" and "make test". The command "make run" will be a special treat.

This assignment is being pushed to your repositories in a branch called "MA2". It will have the starter code for the assignment there. You can check out that branch with:

```
git checkout MA2
```

You can choose to merge the MA2 branch with your master branch with a pull request or not. Just make sure the commit hash you upload to blackboard is one that includes the MA2 source code, whether it's on the master branch or the MA2 branch.

The final text file you upload to blackboard should just have the commit hash you want graded, not the source code. The grader will checkout that commit hash, and run these commands on the EECS SSH server:

```
make; make test; make run
```

Grading

Your submission will be graded based on the following:

1. [7] Your modifications cause no runtime issues and your linked list passes all test cases
2. [3] Your linked list modifications contain good style. For example,
 - You provide meaningful variable names
 - You provide sufficient and meaningful comments
 - Your code is well structured

Due Date

This assignment must be submitted through Blackboard as a text file with the commit hash you want graded no later than 11:59pm on Wednesday, Sept 13, 2017.