

**CSc 210: Software Development**  
**Section 5: Classes and Linked Lists**  
**September 26th, 2017**

In class we have been discussing classes and using them to abstract problems in Java. From previous CS classes, you have (hopefully) been exposed to the idea of a linked list. In section today, we will combine these ideas to implement a singly linked list in Java!

**Exercise**

1. First, grab the skeleton linked list class and driver program from the course website.
2. Think about the linked list implementation you are writing. Are there any classes you could write that might be helpful? What kind of local variables should your class(es) have? Once you have determined this, write any necessary new classes and create the constructor.
3. Now implement the simpler methods (insert, delete, search, toString) and recall how they work from your previous programming experiences. (Try compiling at this point and seeing if it works. Maybe write a small test case?)
4. Once you have the basic functionalities working, consider the more complex methods (reverse, merge). Once you have an idea of how to implement them, go ahead and do so. (Try compiling at this point and seeing if it works. Maybe write some more tests?)
5. If you are confident in your work at this point, try running it through the driver program. If you pass everything, you are done!