3460:210 Assignment 5-A

# **Assignment 5-A: char linked list**

**Overview**

The purpose of this assignment is to make sure that you know how to write a program that uses user written linked lists, stacks or queues.

**PROGRAM SPECIFICATION**

For the assignment, we will design a descending order arranged linked list class. This linked list class should hold a series of char type values. The class should have member functions for appending, inserting, and deleting nodes. Also, it will need a destructor that destroys the list.

For this assignment, you will need to provide these public member functions that perform the following tasks:

1. **appendNode** appends a node containing the char value passed, to the end of the list.
2. **insertNode** this function inserts a node with the char parameter’s value copied to its char member element. This function must insert the values in descending order. Duplicates are okay.
3. **deleteNode** this function searches for a node with char parameter’s value as the element to find. The node, if found, is deleted from the list and from memory. If two or more nodes with the same value are found, only one is removed (your choice which one).

The CharList class member-function definitions have been started for you with the displayList function and the destructor already given. Make sure to use the driver program as well. Find both the driver function and member-function definition files that have been provided in the folder under charList\_main.cpp and charList.cpp, respectively. Please use the driver and make sure your program can execute the test cases successfully.

Make sure that your programs follow good documentation standards and follow the requirements for assignments. Reference the rubric standards on Springboard.

Submission Instructions – for programming solutions

On Springboard, go to the matching Assignments for the ASSGN@-#, where @ is the chapter and # is the number or character of the problem assigned (eg., 5-11 for chapter 5, problem 11), and submit the program (cpp) and any (hpp) files.

*Last updated 9.27.2016 by Will Crissey.*

*Be aware that programming falls under all of the rules of plagiarism. Be careful when using any coding found in the outside world that is not your own. Any evidence of plagiarism is subject to sanctions like forfeits, suspension, and even ejection, as determined by the Department of Student Conduct and Community Standards.*