COMSC-165 Term Project

Enhance the lab 14 **History.cpp** program by adding editing features. This will result in a fully functional program for tracking college courses. The term project will not be considered for grading until lab 14 is correctly completed.

As you complete this assignment, post the required file(s) to the COMSC server. For assignments that involve more than one file, you may post them all at once, or one-at-a-time as you complete them, as you prefer. For assignments that involve more than one separate "lab" (like lab 1a, 1b, and 1c), the individual labs are graded in order, starting with "a", which must be fully correct before "b" is graded, and so on. This assignment is worth 50-points, to be awarded after all labs are successfully completed. Use the "Submit your FA2014 work" link on the class website to post your file for this lab, using the **termProject** folder provided.

REQUIREMENTS Enhance the **History.cpp** program that was the subject of labs 12, 13, and 14. The term project is to add the features listed below.

1. Neatness and presentation, including *alignment and indenting* of code, and *comments*.

2. The *appearance of the output* on the screen must include well presented *user instructions* with nice *spacing* and correct *spelling*.

3. Allow the user to delete records. Include a way to indentify a record to be deleted, either by numbering the records and prompting the user for a record number, or by presenting records one-by-one and prompting for `keep(K)/delete(D)/quit(Q)` in a loop.

4. Allow the user to ask for records to be *resorted*. E.g., the user should be able to ask for data sorted by term, course name, number of units, or letter grade. Sorting is to be case *independent*.

5. Allow the user to ask for the records to be *listed*. Resorting is not required for this option -- just print the list as it is.

HINTS
In the loop that handles the user commands, include these commands: **add**, **delete**, **sort**, **list**, and **quit**. If the user selects **add**, create a new node, fill it with `cin` statements, and add to the linked list, using either the stack method or the queue method. If the user selects **delete**, traverse the list, showing the records one at a time, and let the user type **K** or **D** to keep or delete, or **Q** to quit the traverse -- *or* number the records and prompt the user for a record number. If the user selects **sort**, present the user with a menu of possible sorting choices, and sort the list accordingly, and then list the records. If the user selects **quit**, save the records to the disk, and terminate the program. (*Note:* node editing is not required, because add and delete are sufficient for this purpose.)

SPECIAL SCORING RULE
Redos are allowed just as in weekly lab assignments. But the point deduction for a redo is 5 instead of 2.

> *Post **History.cpp** to the COMSC server.*