COEN 79L – Object-Oriented Programming and Advanced Data Structures

Lab 6:

This week you will be changing and adding to classes that you wrote in earlier weeks.

Project 1:
Add the following functions to the string class:

(a) A new constructor that has one parameter (a character). The constructor initializes the string to have just this one character. `string(char c)`
(b) An insertion function that allows you to insert a string at a given position in another string. `insert()`
(c) A deletion function that allows you to delete a portion of a string. `dlt()`
(d) A replacement function that allows you to replace a single character in a string with a new character. `replace(char c, unsigned int position)`
(e) A replacement function that allows you to replace a portion of a string with another string. `replace(const string& source, unsigned int position)`
(f) A search function that searches a string for the first occurrence of a specified character. `search(char c) const`
(g) A search function that counts the number of occurrences of a specified character in a string. `count(char c) const`
(h) A more complex search function that searches through a string for an occurrence of some smaller string. `search(const string& substring) const`

Project 2:
Implement the polynomial class using a dynamic array so that there is no maximum degree.

The following .cpp file is a fully functional implementation of the polynomial class without a dynamic array. You should download this and modify it rather than use your solution from the earlier lab: `poly.cpp`

Submit the following: `poly.h, poly.cpp, mystring.h, mystring.cpp`