Cpt S 223 Homework Assignment #4 – MyString Class Implementation
by Evan Olds

Submission Instructions:

Submit source code (zipped) to Angel BEFORE the due date/time. If the Angel submission is not working, then submit to TA via email BEFORE the due date/time.

Optional: Include a readme.txt file in the zip with any relevant information that you want the grader to be aware of.

Assignment Instructions:

Read all the instructions *carefully* before you write any code.

Download the zip file from Angel and open the Visual Studio project included within it. Do not create a new project. Open the existing one from the zip. Complete the implementation of the MyString class functions.

1. Implement basic functions in the MyString class (5 points):

- Function to find the index of a character within the string (IndexOf)
- Function to find the starting index of a string within the string (IndexOf)
- Function to split on a specific character and produce an array of strings (Split)
- Function to create a substring (Substring)
- Copy constructor

2. Implement the GetAnagrams function in the MyString class (4 points):

A string S1 is an anagram for S2 if you can rearrange the letters of S1 to get S2. Anagrams involve simply rearranging letters, not adding or removing any. You can look up anagram examples online for more information and examples.

You must implement the GetAnagrams function that takes a list of candidate strings and determines which ones are anagrams of the string itself. For example, supppose the string is “cinema” and its GetAnagrams function is executed with the following list of candidate strings passed in:

- anemic
- name
- cciinneemmaa
- iceman
- ice

In this case the function should add only strings “anemic” and “iceman” to the output string list (which is an STL vector object).

There are 2 anagram testing functions in main.cpp. They show up as options in the menu when you run your code. Utilize them to test your code and do not alter them.

Assignment points breakdown:

- 5 points for part 1
- 4 points for part 2
- 1 point for having well commented, neat, clean and flexible code

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10 points total