Lab 01 - String Manipulation

Direction: Download the file "lab01.cpp" from ReidConsole/CS246/Labs. Modify the code by completing the tasks below; and then, submit your work on github.

For this lab, your objective is to define and test functions that analyze and manipulate characters and strings. You cannot use any built-in library functions and object methods besides the subscript operator and length method of the string class.

☐ Define a bool function named `IsLower()` that takes a char parameter. It returns true if the parameter is a lowercase letter; otherwise, it returns false.

☐ Define a bool function named `IsUpper()` that takes a char parameter. It returns true if the parameter is an uppercase letter; otherwise, it returns false.

☐ Define an int function named `LetterCount()` that takes a string parameter. It returns the count of the letters in the parameter.

☐ Define a string function named `ToLower()` that takes a string parameter. It returns a string that is a duplicate of the parameter except all the uppercase letters of the parameter are turned to lowercase letters in the string.

☐ Define a string function named `ToUpper()` that takes a string parameter. It returns a string that is a duplicate of the parameter except all the lowercase letters of the parameter are turned to uppercase letters in the string.

☐ Define a string function named `Substr()` that takes a string parameter and two char parameters named *str*, *s* and *e* respectively. It returns a substring of *str* that starts with the character *s* and ends with the character *e*. If *s* is not a member of *str*, the function returns an empty string. Furthermore, if *e* is not a member of *str*, the function returns a substring that starts with *s* and ends with the last character of *str*.