CIS 200 Winter 2019

Programming Assignment 1

You are to create your own version of a string class named myString.

myString will store a string of up to 25 characters (how will you handle more than 25?). In no case can it ever exceed 25 characters (excluding null).

Include a reference “status variable” for errors.

You will also need to supply the following methods as part of your class:

size() – returns how many characters are in the string (empty string is size zero)

addStart(myString) – adds the string in the input parameter to the front of current string

addEnd(myString) – adds the string in the input parameter to the end of the current string

partString(startPos, length) – returns string from startPos for length given   
(handle startPos < 0, startPos = size returns null string, handle startPos > size)

replPartString(myString, startPos) – replaces characters starting at startPos with input string

replWholeString (myString) – replaces current string data value with input parameter string

compareString(myString) – compare current value of string with input parameter string

initString() – resets/initializes string to null string

setString(string) – assign string to myString data value

getString() – returns string of data from myString data value

printStringScreen() – prints myString data value to the monitor

numericString() – returns Boolean telling if data value is either integer or real (signs, decimal point. etc.)

alphabeticString() – returns Boolean telling if data value is all alphabetic characters

You may use the C++ string class only for screen input and the setString & getString methods.

Write a main that will test all of functionalities of the myString class, displaying the actions both on the screen and to an output file. Main must use a method to write the results to the file.

Create an output file log of actions, which must show action, original value of myString, parameters/results, success/error message.

You determine format and error messages – format into columns for readability