PFII Lab 6: Implementing the String Class

In this lab, I learned more about class scope and the differences between a default constructor and one that is implemented. The reason the original program failed when Mystring was defined in the main was because our class being included has no way to copy the content pointed to by the pointer of the argument object (the program can’t access the variables so it fails to run).

The difference in max\_size() which is dependent on the compiler (memory) for the original case and is limited in the implementation of our modified version. The main difference between the two outputs is the capacity() which is 13 for the C++ string copy constructor and 14 for the Mystring copy constructor. The reason the outputs are different is because **buf\_size** *(capacity() returns buf\_size)* is set to **len +1** in the copy constructor, making it 1 larger than the default copy constructor.

**4.1 C++ string for copy constructor output:**

This is Lab 6

checking s1

s1 contains Hello, World!

s1 capacity() is 13

s1 length() is 13

s1 size() is 13

s1 max\_size() is 4611686018427387897 

checking s1

s1 contains Hello, World!

s1 capacity() is 13

s1 length() is 13

s1 size() is 13

s1 max\_size() is 4611686018427387897 

Lab 6 ends

**4.3 Mystring copy constructor output:**

This is Lab 6

checking s1

s1 contains Hello, World!

s1 capacity() is 14

s1 length() is 13

s1 size() is 13

s1 max\_size() is 1073741820 

checking s1

s1 contains Hello, World!

s1 capacity() is 14

s1 length() is 13

s1 size() is 13

s1 max\_size() is 1073741820 

Lab 6 ends