PFII Lab 5: Testing the String Class

In this lab I learned more about the standard library string class and its methods through the creation and testing of the check() function. The testing in the main helped me better grasp the use of pointers in step 13, and arrays in steps 10 and 15. Overall, Lab 5 provided a good introduction and framework for the String class to prepare us for future implementation of our own mystring class.

Program Output:

s0 is empty

checking s2

s2 contains Hello, World!!

s2 capacity() is 26

s2 length() is 14

s2 size() is 14

s2 max\_size() is 4611686018427387897

checking s1

s1 contains Hello, World!Hello, World!!

s1 capacity() is 27

s1 length() is 27

s1 size() is 27

s1 max\_size() is 4611686018427387897

checking s1

s1 contains Hello, World! Hello, World!!

s1 capacity() is 54

s1 length() is 28

s1 size() is 28

s1 max\_size() is 4611686018427387897

checking s0

s0 contains Hello, World! Hello, World!! Hello, World!!

s0 capacity() is 58

s0 length() is 43

s0 size() is 43

s0 max\_size() is 4611686018427387897

checking s0

s0 contains Hello, World! Hello, World!! Hello, World!!

s0 capacity() is 50

s0 length() is 43

s0 size() is 43

s0 max\_size() is 4611686018427387897

c = !

checking s0

s0 contains Hello, World! Hello, World!! Hello, World!!

s0 capacity() is 50

s0 length() is 43

s0 size() is 43

s0 max\_size() is 4611686018427387897

checking s2

s2 contains Hello, World!!Hello, World!!

s2 capacity() is 52

s2 length() is 28

s2 size() is 28

s2 max\_size() is 4611686018427387897

checking s2

s2 contains Hello, World=!Hello, World!!

s2 capacity() is 52

s2 length() is 28

s2 size() is 28

s2 max\_size() is 4611686018427387897

p = Hello, World=!Hello, World!!

checking p

p contains Hello, World=!Hello, World!!

p capacity() is 28

p length() is 28

p size() is 28

p max\_size() is 4611686018427387897

p is the same as s2

checking p

p contains Hello, World=!Hello, World!!

p capacity() is 28

p length() is 28

p size() is 28

p max\_size() is 4611686018427387897

checking s2

s2 contains Hello, World=!Hello, World!!

s2 capacity() is 52

s2 length() is 28

s2 size() is 28

s2 max\_size() is 4611686018427387897

checking s2

s2 contains Hello, World!!Hello, World!!

s2 capacity() is 52

s2 length() is 28

s2 size() is 28

s2 max\_size() is 4611686018427387897

checking s0

s0 contains

s0 capacity() is 50

s0 length() is 0

s0 size() is 0

s0 max\_size() is 4611686018427387897

checking s2

s2 contains

s2 capacity() is 52

s2 length() is 0

s2 size() is 0

s2 max\_size() is 4611686018427387897

p = checking p

p contains

p capacity() is 0

p length() is 0

p size() is 0

p max\_size() is 4611686018427387897