Submitter: dereky1(Yang, Derek)

====================================start of the write-up====================================

Standard_main

```
dereky1@katya-kazanova 00:14:24 ~/45c/hw4
$ g++ standard_main.cpp string.cpp -o standard_main
dereky1@katya-kazanova 00:14:28 ~/45c/hw4
$ standard_main
+: FirstSecond
+=: FirstSecond
indexOf(String): 5
indexOf(char): 4
LT: 0
GT: 1
LE: 0
GE: 1
<<:
<<: Fourth
==: 0
indexOf(String): 6
size(): 0
size(): 6
[]: i
reverse(): htruoF
<<: First First
[]: i
Error (class String): Index out of bounds
[]: F
!=: 0
Enter a test string: Submitter:dereky1(Yang,Derek)
Submitter:dereky1(Yang,Derek)
0
0
1
1
dereky1@katya-kazanova 00:14:43 ~/45c/hw4
$
```

Valgrind :standard_main

```
==27446== HEAP SUMMARY:
==27446==     in use at exit: 72,704 bytes in 1 blocks
==27446==   total heap usage: 33 allocs, 32 frees, 73,177 bytes allocated
==27446==
==27446== 72,704 bytes in 1 blocks are still reachable in loss record 1 of 1
==27446==    at 0x4A06A2E: malloc (vg_replace_malloc.c:270)
==27446==    by 0x4C99ACF: _GLOBAL__sub_I_eh_alloc.cc (eh_alloc.cc:117)
==27446==    by 0x4D4BBC5: ??? (in /pkg/gcc/5.2.0/lib64/libstdc++.so.6.0.21)
==27446==    by 0x4C94482: ??? (in /pkg/gcc/5.2.0/lib64/libstdc++.so.6.0.21)
==27446==
==27446== LEAK SUMMARY:
==27446==    definitely lost: 0 bytes in 0 blocks
==27446==    indirectly lost: 0 bytes in 0 blocks
==27446==      possibly lost: 0 bytes in 0 blocks
==27446==    still reachable: 72,704 bytes in 1 blocks
==27446==         suppressed: 0 bytes in 0 blocks
```

Submitter: dereky1(Yang, Derek)

String_test

```
dereky1@katya-kazanova 00:14:43 ~/45c/hw4
$ g++ string_test.cpp string.cpp -o string_test
dereky1@katya-kazanova 00:15:34 ~/45c/hw4
$ string_test
================================
COMMENCING THE TESTING PROCESS...
================================

TESTING CONSTRUCTOR AND PRINT()

hello is the string object
world is the next string object
together: helloworld

TESTING SIZE()

African is 7 characters long.
Savannah is 8 characters long.

TESTING ASSIGNMENT

e is now Empty
After assignment, e is now Full
After another assignment, e is now Half Full

TESTING INDEXING

The second letter of Iguanna is g
The last letter of Iguanna is a

TESTING REVERSE()

Reverse reversed is esreveR
esreveR reversed is Reverse
Boston reversed is notsoB

TESTING == and !=

a == b : 0 should be false
a == a : 1 should be true
a != b : 1 should be true
a != a : 0 should be false
```

Submitter: dereky1(Yang, Derek)


```
dereky1@katya-kazanova:~/45c/hw4                              —   □   ✕

TESTING +, +=

c=a+b: c=abcdefghijklm, should be abcdefghijklm
a+=b: a=abcdeghijklm, should be abcdefghijklm
d=a+a: d=abcdefabcdef, should be adcdefabcdef
d+=a: d=abcdefabcdeabcdeghijklm, should be abcdefabcdefabcdefghijklm

TESTING indexOf()

The index of a is 0, should be 0
The index of bcd is 1, should be 1
The index of e is 4, should be 4

TESTING read()

Type in a string you would like to store into This
Submitter:dereky1(Yang,Derek)
This is inside This: Submitter:dereky1(Yang,Derek)

TESTING MEMORY LEAKS

Allocations & deallocations match


================================
TESTING HAS FINISHED...
================================
dereky1@katya-kazanova 00:15:53 ~/45c/hw4
$
```

Valgrind test_string


```
dereky1@katya-kazanova:~/45c/hw4                              —   □   ✕

==19522== HEAP SUMMARY:
==19522==     in use at exit: 72,704 bytes in 1 blocks
==19522==   total heap usage: 88 allocs, 87 frees, 73,619 bytes allocated
==19522==
==19522== 72,704 bytes in 1 blocks are still reachable in loss record 1 of 1
==19522==    at 0x4A06A2E: malloc (vg_replace_malloc.c:270)
==19522==    by 0x4C99ACF: _GLOBAL__sub_I_eh_alloc.cc (eh_alloc.cc:117)
==19522==    by 0x4D4BBC5: ??? (in /pkg/gcc/5.2.0/lib64/libstdc++.so.6.0.21)
==19522==    by 0x4C94482: ??? (in /pkg/gcc/5.2.0/lib64/libstdc++.so.6.0.21)
==19522==
==19522== LEAK SUMMARY:
==19522==    definitely lost: 0 bytes in 0 blocks
==19522==    indirectly lost: 0 bytes in 0 blocks
==19522==      possibly lost: 0 bytes in 0 blocks
==19522==    still reachable: 72,704 bytes in 1 blocks
==19522==         suppressed: 0 bytes in 0 blocks
```

==================================end of the write-up==================================