Submitter: dereky1(Yang, Derek)

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

My_main

```
dereky1@sterling-malory-archer 19:52:03 ~
$ cd 45c/hw5
dereky1@sterling-malory-archer 19:52:10 ~/45c/hw5
$ g++ my_main.cpp String.cpp -o my_main
dereky1@sterling-malory-archer 19:52:25 ~/45c/hw5
$ ./my_main
================================
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 ==

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

TESTING <

b<b : 0 should be false
a<b : 1 should be true
```

Submitter: dereky1(Yang, Derek)

dereky1@sterling-malory-archer:~/45c/hw5 — ☐ ✕

```
TESTING +, +=

made my strings
c=a+b: c=abcdefghijklm, should be abcdefghijklm
a+=b: a=abcdefghijklm, should be abcdefghijklm
d=a+a: d=abcdefabcdef, should be adcdefabcdef
d+=a: d=abcdefabcdefabcdefghijklm, should be abcdefabcdefabcdefghijklm

TESTING indexOf()

The index of a is 0, should be 0
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 HAS FINISHED...
=================================
dereky1@sterling-malory-archer 19:52:42 ~/45c/hw5
$
```

Submitter: dereky1(Yang, Derek)

My_main_valgrind

```
dereky1@sterling-malory-archer 19:52:42 ~/45c/hw5
$ valgrind --tool=memcheck --leak-check=yes --show-reachable=yes --track-origins
=yes my_main
==2587== Memcheck, a memory error detector
==2587== Copyright (C) 2002-2012, and GNU GPL'd, by Julian Seward et al.
==2587== Using Valgrind-3.8.1 and LibVEX; rerun with -h for copyright info
==2587== Command: my_main
==2587==
================================
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 ==

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

```
TESTING <

b<b : 0 should be false
a<b : 1 should be true

TESTING +, +=

made my strings
c=a+b: c=abcdefghijklm, should be abcdefghijklm
a+=b: a=abcdefghijklm, should be abcdefghijklm
d=a+a: d=abcdefabcdef, should be adcdefabcdef
d+=a: d=abcdefabcdefabcdefghijklm, should be abcdefabcdefabcdefghijklm

TESTING indexOf()

The index of a is 0, should be 0
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 HAS FINISHED...
================================
==2587==
==2587== HEAP SUMMARY:
==2587==     in use at exit: 72,704 bytes in 1 blocks
==2587==   total heap usage: 446 allocs, 445 frees, 80,064 bytes allocated
==2587==
==2587== 72,704 bytes in 1 blocks are still reachable in loss record 1 of 1
==2587==    at 0x4A06A2E: malloc (vg_replace_malloc.c:270)
==2587==    by 0x4C99ACF: _GLOBAL__sub_I_eh_alloc.cc (eh_alloc.cc:117)
==2587==    by 0x4D4BBC5: ??? (in /pkg/gcc/5.2.0/lib64/libstdc++.so.6.0.21)
==2587==    by 0x4C94482: ??? (in /pkg/gcc/5.2.0/lib64/libstdc++.so.6.0.21)
==2587==
==2587== LEAK SUMMARY:
==2587==    definitely lost: 0 bytes in 0 blocks
==2587==    indirectly lost: 0 bytes in 0 blocks
==2587==      possibly lost: 0 bytes in 0 blocks
==2587==    still reachable: 72,704 bytes in 1 blocks
==2587==         suppressed: 0 bytes in 0 blocks
==2587==
==2587== For counts of detected and suppressed errors, rerun with: -v
==2587== ERROR SUMMARY: 0 errors from 0 contexts (suppressed: 6 from 6)
dereky1@sterling-malory-archer 19:55:58 ~/45c/hw5
$
```

Submitter: dereky1(Yang, Derek)

Test_main:

```
dereky1@sterling-malory-archer:~/45c/hw5                      —    □    ×

$ g++ test_main.cpp String.cpp -o test_main
dereky1@sterling-malory-archer 19:59:42 ~/45c/hw5
$ ./test_main
+: FirstSecond
+=: FirstSecond
indexOf(char): 4
LT: 1
<<:
<<: Fourth
==: 0
[]: i
<<: First First
[]: i
ERROR: Index Out of Bounds.
[]: F
Enter a test string: Submitter:dereky1(Yang, Derek)
Submitter:dereky1(Yang, Derek)
1
0
dereky1@sterling-malory-archer 20:00:01 ~/45c/hw5
$
```

Test_main_valgrind

```
dereky1@carol-tunt:~/45c/hw5                                   —    □    ×

dereky1@carol-tunt 18:36:35 ~/45c/hw5
$ valgrind --tool=memcheck --leak-check=yes --show-reachable=yes --track-orig
=yes test_main
==25742== Memcheck, a memory error detector
==25742== Copyright (C) 2002-2012, and GNU GPL'd, by Julian Seward et al.
==25742== Using Valgrind-3.8.1 and LibVEX; rerun with -h for copyright info
==25742== Command: test_main
==25742==
+: FirstSecond
+=: FirstSecond
indexOf(char): 4
LT: 1
<<:
<<: Fourth
==: 0
[]: i
<<: First First
[]: i
[]: F
Enter a test string: Submitter:dereky(Yang,Derek)
Submitter:dereky(Yang,Derek)
1
0
```

Submitter: dereky1(Yang, Derek)

```
dereky1@carol-tunt:~/45c/hw5                                    —    □    ×
==2587==
==2587== HEAP SUMMARY:
==2587==     in use at exit: 72,704 bytes in 1 blocks
==2587==   total heap usage: 139 allocs, 138 frees, 75,152 bytes allocated
==2587==
==2587== 72,704 bytes in 1 blocks are still reachable in loss record 1 of 1
==2587==    at 0x4A06A2E: malloc (vg_replace_malloc.c:270)
==2587==    by 0x4C99ACF: _Global__sub_I_cd_alloc.cc(ch_alloc.cc:117)
==2587==    by 0x4D4BBC5: ??? (in /pkg/gcc/5.2.0/lib64/libstdc++.so.6.0.21)
==2587==    by 0x4C94482: ??? (in /pkg/gcc/5.2.0/lib64/libstdc++.so.6.0.21)
==2587==
==2587==
==2587== LEAK SUMMARY:
==2587==    definitely lost: 0 bytes in 0 blocks
==2587==    indirectly lost: 0 bytes in 0 blocks
==2587==      possibly lost: 0 bytes in 0 blocks
==2587==    still reachable: 72,704 bytes in 1 blocks
==2587==         suppressed: 0 bytes in 0 blocks
==2587==
==2587==
==2587== For counts of detected and suppressed errors, rerun with: -v
==2587== ERROR SUMMARY: 0 errors from 0 contexts (suppressed: 6 from 6)
dereky1@carol-tunt 18:52:43 ~/45c/hw5
```

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