```
ggabrich@andromeda-3 00:30:58 ~/ics46/hw/hw1
$ make
echo      ---------compiling MyString.ccp to create executable program MyString-----------
---------compiling MyString.ccp to create executable program MyString-----------
g++  -ggdb  -std=c++11  MyString.cpp  -o  MyString
ggabrich@andromeda-3 00:36:13 ~/ics46/hw/hw1
$ valgrind MyString
==24429== Memcheck, a memory error detector
==24429== Copyright (C) 2002-2017, and GNU GPL'd, by Julian Seward et al.
==24429== Using Valgrind-3.13.0 and LibVEX; rerun with -h for copyright info
==24429== Command: MyString
==24429==

---Test Reverse---
dog 3 god
cat 3 tac
cat 3 tac
catch 5 hctac
dog 3 god
america 7 acirema
is 2 si
the 3 eht
land 4 dnal
of 2 fo
the 3 eht
freeloaders 11 sredaoleerf
 0
man 3 nam
man 3 nam
woman 5 namow
man 3 nam
womanly 7 ylnamow
man 3 nam
Amanda 6 adnamA
 0
 0

---Test Assign---
load: dog testAss: dog
load: cat testAss: cat
load: cat testAss: cat
load: catch testAss: catch
load: dog testAss: dog
load: america testAss: america
load: is testAss: is
load: the testAss: the
load: land testAss: land
load: of testAss: of
load: the testAss: the
load: freeloaders testAss: freeloaders
load:  testAss:
load: man testAss: man
load: man testAss: man
load: woman testAss: woman
load: man testAss: man
load: womanly testAss: womanly
```

```
load: womanly testAss: womanly
load: man testAss: man
load: Amanda testAss: Amanda
load:  testAss:
load:  testAss:

---Test +---
add1: dog add2:  1+2: dog
add1: cat add2: dog 1+2: catdog
add1: cat add2: cat 1+2: catcat
add1: catch add2: cat 1+2: catchcat
add1: dog add2: catch 1+2: dogcatch
add1: america add2: dog 1+2: americadog
add1: is add2: america 1+2: isamerica
add1: the add2: is 1+2: theis
add1: land add2: the 1+2: landthe
add1: of add2: land 1+2: ofland
add1: the add2: of 1+2: theof
add1: freeloaders add2: the 1+2: freeloadersthe
add1:  add2: freeloaders 1+2: freeloaders
add1: man add2:  1+2: man
add1: man add2: man 1+2: manman
add1: woman add2: man 1+2: womanman
add1: man add2: woman 1+2: manwoman
add1: womanly add2: man 1+2: womanlyman
add1: man add2: womanly 1+2: manwomanly
add1: Amanda add2: man 1+2: Amandaman
add1:  add2: Amanda 1+2: Amanda
add1:  add2:  1+2:

---Test +=---
test:  test+=blank:  load: dog test+=load: dog sum+=test: dog
test:  test+=blank:  load: cat test+=load: cat sum+=test: dogcat
test:  test+=blank:  load: cat test+=load: cat sum+=test: dogcatcat
test:  test+=blank:  load: catch test+=load: catch sum+=test: dogcatcatcatch
test:  test+=blank:  load: dog test+=load: dog sum+=test: dogcatcatcatchdog
test:  test+=blank:  load: america test+=load: america sum+=test: dogcatcatcatchdogamerica
test:  test+=blank:  load: is test+=load: is sum+=test: dogcatcatcatchdogamericais
test:  test+=blank:  load: the test+=load: the sum+=test: dogcatcatcatchdogamericaisthe
test:  test+=blank:  load: land test+=load: land sum+=test: dogcatcatcatchdogamericaistheland
test:  test+=blank:  load: of test+=load: of sum+=test: dogcatcatcatchdogamericaisthelandof
test:  test+=blank:  load: the test+=load: the sum+=test: dogcatcatcatchdogamericaisthelandofthe
test:  test+=blank:  load: freeloaders test+=load: freeloaders sum+=test: dogcatcatcatchdogamericaisthelandofthefreeloaders
test:  test+=blank:  load:  test+=load:  sum+=test: dogcatcatcatchdogamericaisthelandofthefreeloaders
test:  test+=blank:  load: man test+=load: man sum+=test: dogcatcatcatchdogamericaisthelandofthefreeloadersman
test:  test+=blank:  load: man test+=load: man sum+=test: dogcatcatcatchdogamericaisthelandofthefreeloadersmanman
test:  test+=blank:  load: woman test+=load: woman sum+=test: dogcatcatcatchdogamericaisthelandofthefreeloadersmanmanwoman
test:  test+=blank:  load: man test+=load: man sum+=test: dogcatcatcatchdogamericaisthelandofthefreeloadersmanmanwomanman
test:  test+=blank:  load: womanly test+=load: womanly sum+=test: dogcatcatcatchdogamericaisthelandofthefreeloadersmanmanwomanmanwomanly
test:  test+=blank:  load: man test+=load: man sum+=test: dogcatcatcatchdogamericaisthelandofthefreeloadersmanmanwomanmanwomanlyman
test:  test+=blank:  load: Amanda test+=load: Amanda sum+=test: dogcatcatcatchdogamericaisthelandofthefreeloadersmanmanwomanmanwomanlymanAmanda
test:  test+=blank:  load:  test+=load:  sum+=test: dogcatcatcatchdogamericaisthelandofthefreeloadersmanmanwomanmanwomanlymanAmanda
test:  test+=blank:  load:  test+=load:  sum+=test: dogcatcatcatchdogamericaisthelandofthefreeloadersmanmanwomanmanwomanlymanAmanda

---Test []---
test: dog
```

```
test: dog
d o g

test: cat
c a t

test: cat
c a t

test: catch
c a t c h

test: dog
d o g

test: america
a m e r i c a

test: is
i s

test: the
t h e

test: land
l a n d

test: of
o f

test: the
t h e

test: freeloaders
f r e e l o a d e r s

test:


test: man
m a n

test: man
m a n

test: woman
w o m a n

test: man
m a n

test: womanly
w o m a n l y

test: man
m a n
```

```
test: man
m a n

test: Amanda
A m a n d a

test:


test:


---Test IndexChar---
test: dog test[len]:  indexOf(test[len]): 3
test: cat test[len]:  indexOf(test[len]): 3
test: cat test[len]:  indexOf(test[len]): 3
test: catch test[len]:  indexOf(test[len]): 5
test: dog test[len]:  indexOf(test[len]): 3
test: america test[len]:  indexOf(test[len]): 7
test: is test[len]:  indexOf(test[len]): 2
test: the test[len]:  indexOf(test[len]): 3
test: land test[len]:  indexOf(test[len]): 4
test: of test[len]:  indexOf(test[len]): 2
test: the test[len]:  indexOf(test[len]): 3
test: freeloaders test[len]:  indexOf(test[len]): 11
test:  test[len]:  indexOf(test[len]): 0
test: man test[len]:  indexOf(test[len]): 3
test: man test[len]:  indexOf(test[len]): 3
test: woman test[len]:  indexOf(test[len]): 5
test: man test[len]:  indexOf(test[len]): 3
test: womanly test[len]:  indexOf(test[len]): 7
test: man test[len]:  indexOf(test[len]): 3
test: Amanda test[len]:  indexOf(test[len]): 6
test:  test[len]:  indexOf(test[len]): 0
test:  test[len]:  indexOf(test[len]): 0

---Test IndexString---
test:  load: dog indexOf(test): 0
test: dog load: cat indexOf(test): -1
test: cat load: cat indexOf(test): 0
test: cat load: catch indexOf(test): 0
test: catch load: dog indexOf(test): -1
test: dog load: america indexOf(test): -1
test: america load: is indexOf(test): -1
test: is load: the indexOf(test): -1
test: the load: land indexOf(test): -1
test: land load: of indexOf(test): -1
test: of load: the indexOf(test): -1
test: the load: freeloaders indexOf(test): -1
test: freeloaders load:  indexOf(test): -1
test:  load: man indexOf(test): 0
test: man load: man indexOf(test): 0
test: man load: woman indexOf(test): 2
test: woman load: man indexOf(test): -1
test: man load: womanly indexOf(test): 2
test: womanly load: man indexOf(test): -1
```

```
test: of load: the indexOf(test): -1
test: the load: freeloaders indexOf(test): -1
test: freeloaders load:  indexOf(test): -1
test:  load: man indexOf(test): 0
test: man load: man indexOf(test): 0
test: man load: woman indexOf(test): 2
test: woman load: man indexOf(test): -1
test: man load: womanly indexOf(test): 2
test: womanly load: man indexOf(test): -1
test: man load: Amanda indexOf(test): 1
test: Amanda load:  indexOf(test): -1
test:  load:  indexOf(test): 0

---Test ==---
test:  load: dog test==load: 0
test: dog load: cat test==load: 0
test: cat load: cat test==load: 1
test: cat load: catch test==load: 0
test: catch load: dog test==load: 0
test: dog load: america test==load: 0
test: america load: is test==load: 0
test: is load: the test==load: 0
test: the load: land test==load: 0
test: land load: of test==load: 0
test: of load: the test==load: 0
test: the load: freeloaders test==load: 0
test: freeloaders load:  test==load: 0
test:  load: man test==load: 0
test: man load: man test==load: 1
test: man load: woman test==load: 0
test: woman load: man test==load: 0
test: man load: womanly test==load: 0
test: womanly load: man test==load: 0
test: man load: Amanda test==load: 0
test: Amanda load:  test==load: 0
test:  load:  test==load: 1

Net memory allocated at program end: 0
(should be zero! positive = memory leak, negative = duplicate delete)
==24429==
==24429== HEAP SUMMARY:
==24429==     in use at exit: 72,704 bytes in 1 blocks
==24429==   total heap usage: 591 allocs, 590 frees, 146,196 bytes allocated
==24429==
==24429== LEAK SUMMARY:
==24429==    definitely lost: 0 bytes in 0 blocks
==24429==    indirectly lost: 0 bytes in 0 blocks
==24429==      possibly lost: 0 bytes in 0 blocks
==24429==    still reachable: 72,704 bytes in 1 blocks
==24429==         suppressed: 0 bytes in 0 blocks
==24429== Rerun with --leak-check=full to see details of leaked memory
==24429==
==24429== For counts of detected and suppressed errors, rerun with: -v
==24429== ERROR SUMMARY: 0 errors from 0 contexts (suppressed: 0 from 0)
ggabrich@andromeda-3 00:38:32 ~/ics46/hw/hw1
$
```