## Exam1 Report ECPE170

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a. wget <a href="http://www1.pacific.edu/~jshafer3/ecpe170/exam1.tar.bz2">http://www1.pacific.edu/~jshafer3/ecpe170/exam1.tar.bz2</a>
b. mv exam1.tar.bz2 ~/bitbucket/2015_fall_ecpe170/exam1
c.
d. (1)make (2)./exam1
e. time ./exam1
      0m0.009s
real
user
      0m0.004s
       0m0.000s
SVS
real is the wall clock time
f.(1)valgrind --tool=memcheck --leak-check=yes --show-reachable=yes --num-callers=20 --log-
file=memcheck.txt ./exam1
(2)gedit memcheck.txt &
==6187== Memcheck, a memory error detector
==6187== Copyright (C) 2002-2013, and GNU GPL'd, by Julian Seward et al.
==6187== Using Valgrind-3.10.0.SVN and LibVEX; rerun with -h for copyright info
==6187== Command: ./exam1
==6187== Parent PID: 4054
==6187==
==6187==
==6187== HEAP SUMMARY:
==6187==
             in use at exit: 7,632 bytes in 477 blocks
==6187== total heap usage: 1,611 allocs, 1,134 frees, 26,328 bytes allocated
==6187==
==6187== 704 bytes in 44 blocks are indirectly lost in loss record 1 of 2
==6187== at 0x4C2AB80: malloc (in /usr/lib/valgrind/vgpreload_memcheck-amd64-linux.so)
==6187== by 0x4008DF: string append (in
/home/yzyayzyb/bitbucket/2015_fall_ecpe170/exam1/exam1)
==6187== by 0x400828: main (in /home/yzyayzyb/bitbucket/2015_fall_ecpe170/exam1/exam1)
==6187==
==6187== 7,632 (6,928 direct, 704 indirect) bytes in 433 blocks are definitely lost in loss record 2
of 2
==6187== at 0x4C2AB80: malloc (in /usr/lib/valgrind/vgpreload_memcheck-amd64-linux.so)
            by 0x4008DF: string_append (in
==6187==
/home/yzyayzyb/bitbucket/2015 fall ecpe170/exam1/exam1)
==6187== by 0x400828: main (in /home/yzyayzyb/bitbucket/2015_fall_ecpe170/exam1/exam1)
==6187==
==6187== LEAK SUMMARY:
            definitely lost: 6,928 bytes in 433 blocks
==6187==
            indirectly lost: 704 bytes in 44 blocks
==6187==
             possibly lost: 0 bytes in 0 blocks
==6187==
            still reachable: 0 bytes in 0 blocks
==6187==
==6187==
               suppressed: 0 bytes in 0 blocks
==6187==
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==6187== For counts of detected and suppressed errors, rerun with: -v
==6187== ERROR SUMMARY: 1 errors from 1 contexts (suppressed: 0 from 0)
==6407== Memcheck, a memory error detector
==6407== Copyright (C) 2002-2013, and GNU GPL'd, by Julian Seward et al.
==6407== Using Valgrind-3.10.0.SVN and LibVEX; rerun with -h for copyright info
==6407== Command: ./exam1
==6407== Parent PID: 4054
==6407==
==6407==
==6407== HEAP SUMMARY:
           in use at exit: 0 bytes in 0 blocks
==6407==
==6407== total heap usage: 1,611 allocs, 1,611 frees, 26,328 bytes allocated
==6407==
==6407== All heap blocks were freed -- no leaks are possible
==6407==
==6407== For counts of detected and suppressed errors, rerun with: -v
==6407== ERROR SUMMARY: 0 errors from 0 contexts (suppressed: 0 from 0)
```