# TP0: Contador de Palabras

Federico del Mazo - 100029

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# Paso 0: Entorno de Trabajo

```
7542-Taller/TP0 master  X gcc main.c -o tp
   7542-Taller/TPO master X
Hola, Mundo!
\rightarrow 7542-Taller/TP0 master X valgrind ./tp
==28711== Memcheck, a memory error detector
==28711== Copyright (C) 2002-2017, and GNU GPL'd, by Julian Seward et al.
==28711== Using Valgrind-3.13.0 and LibVEX; rerun with -h for copyright info
==28711== Command: ./tp
==28711==
Hola, Mundo!
==28711==
==28711== HEAP SUMMARY:
              in use at exit: 0 bytes in 0 blocks
==28711==
==28711==
             total heap usage: 1 allocs, 1 frees, 1,024 bytes allocated
==28711==
==28711== All heap blocks were freed -- no leaks are possible
==28711== For counts of detected and suppressed errors, rerun with: -v
 =28711== ERROR SUMMARY: 0 e<u>r</u>rors from 0 contexts (suppressed: 0 from 0)
```

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- 1. ¿Para qué sirve Valgrind? ¿Cuáles son sus opciones más comunes?
- 2. ¿Qué representa sizeof() ? ¿Cuál sería el valor de salida de s izeof(char) y sizeof(int) ?
- 3. ¿El sizeof() de una struct de C es igual a la suma del s izeof() de cada uno sus elementos? Justifique mediante un ejemplo
- 4. Investigar la existencia de los archivos estándar: STDIN, STDOUT, STDERR. Explicar brevemente su uso y cómo redirigirlos en caso de ser necesario (caracteres >~y~<~) y como conectar la salida estándar de un proceso a la entrada estándar de otro con un p ipe (carácter | ).

#### Paso 1:

#### **ESTILO**

```
./paso1_wordscounter.c:27: Missing space before ( in while( [whitespace/parens] [5] ./paso1_wordscounter.c:41: Mismatching spaces inside () in if [whitespace/parens] [5] ./paso1_wordscounter.c:41: Should have zero or one spaces inside ( and ) in if [whitespace/parens ./paso1_wordscounter.c:47: An else should appear on the same line as the preceding } [whitespace ./paso1_wordscounter.c:47: If an else has a brace on one side, it should have it on both [readal ./paso1_wordscounter.c:48: Missing space before ( in if( [whitespace/parens] [5]
```

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#### Comandos Ejecutados

#	‡ Tarea	Comando	Inicio	Duración	Exito?	Observaciones	Diferencias	Archivos Guardados
1	Normas	python ./cpplint.pyextensions=h,hpp,c,cpp filter=`cat filter_options` `find -regextype posix-egrep -regex '.*\.(h hpp c cpp)'`	2019-08-22 11:06:03	0:00:01	No	Se esperaba terminar con un código de retorno 0 pero se obtuvo 1.		Bajar Todo stdouterr
1	Compilar C99 simple		2019-08-22 11:06:04	0:00:00	No	Se esperaba terminar con un código de retorno 0 pero se obtuvo 2.		Bajar Todo stdouterr

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- ./paso1\_wordscounter.c:53: Extra space before last semicolon. If this should be an empty statement Done processing ./paso1\_wordscounter.c
  ./paso1\_main.c:12: Almost always, snprintf is better than strcpy [runtime/printf] [4]
  ./paso1\_main.c:15: An else should appear on the same line as the preceding } [whitespace/newline./paso1\_main.c:15: If an else has a brace on one side, it should have it on both [readability/br
- Done processing ./paso1\_main.c ./paso1\_wordscounter.h:5: Lines should be <= 80 characters long [whitespace/line\_length] [2] Done processing ./paso1\_wordscounter.h

Total errors found: 11

#### CODIGO

### PASO 2

a. Describa en breves palabras las correcciones realizadas respecto de la versión anterior.

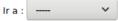
#### Estilo:

Done processing ./paso2\_main.c Done processing ./paso2\_wordscounter.c Done processing ./paso2\_wordscounter.h Total errors found: 0

#### **CODIGO**

CC paso2\_wordscounter.o In file included from paso2\_wordscounter.c:1:0: paso2\_wordscounter.h:7:5: error: unknown type name 'size\_t' size\_t words;  $^$  paso2\_wordscounter.h:20:1: error: unknown type name 'size\_t' size\_t wordscounter\_get\_words(wordscounter\_t self);  $^$  paso2\_wordscounter.h:25:49:

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### Comandos Ejecutados

#	Tarea	Comando	Inicio	Duración	Exito?	Observaciones	Diferencias	Archivos Guardados
1	Normas	python ./cpplint.pyextensions=h,hpp,c,cpp filter=`cat filter_options` `find -regextype posix-egrep -regex '.*\.(h hpp c cpp)'`	2019-08-22 11:10:27	0:00:00	Sí			Bajar Todo stdouterr
1	Compilar C99 simple	make -f Makefile	2019-08-22 11:10:27	0:00:01	No	Se esperaba terminar con un código de retorno 0 pero se obtuvo 2.		Bajar Todo stdouterr

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error: unknown type name 'FILE' void wordscounter\_process(wordscounter\_t self, FILE text\_file);  $paso 2\_words counter.c: 17:8: \quad error: \quad conflicting \quad types \quad for \quad `words counter\_get\_words' \quad size\_t \quad wordscounter\_get\_words' \quad$  $scounter\_get\_words(wordscounter\_t \ self) \ \{ \ \widehat{\ } \ In \ file \ included \ from \ paso2\_wordscounter.c:1:0: \ file \ from \ paso2\_wordscounter.c:1:0: \ from \ paso2\_wordscounter.c:1:0:$ paso2\_wordscounter.h:20:8: note: previous declaration of 'wordscounter\_get\_words' was here size\_t wordscounter\_get\_words(wordscounter\_t self); ` paso2\_wordscounter.c:  $`wordscounter\_next\_state'$ :  $paso2\_wordscounter.c:30:25:$ implicit declaration of funcerror: tion 'malloc' [-Wimplicit-function-declaration] char delim\_words = malloc(7 \* sizeof(char)); paso2\_wordscounter.c:30:25: error: incompatible implicit declaration of built-in function 'malloc' [-Werror] paso2\_wordscounter.c:30:25: note: include '<stdlib.h>' or provide a declaration of 'malloc' cc1: all warnings being treated as errors : recipe for target 'paso2\_wordscounter.o' failed make: \*\*\* [paso2 wordscounter.o] Error 1

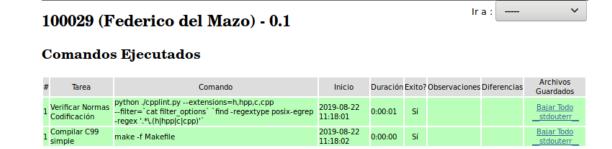
#### Paso 3

#### Ira: 100029 (Federico del Mazo) - 0.1 Comandos Ejecutados Duración Exito? Diferencias Tarea Observaciones Inicio Guardados python ./cpplint.py --extensions=h,hpp,c,cpp Verificar 2019-08-22 `find -regextype 0:00:00 11:16:30 stdouterr Codificación posix-egrep -regex '.\*\.(h|hpp|c|cpp)' Se esperaba terminar con Compilar C99 2019-08-22 Bajar Todo un código de retorno 0 make -f Makefile 0:00:03 11:16:30 simple stdouterr pero se obtuvo 2.

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CC paso3\_wordscounter.o CC paso3\_main.o LD tp paso3\_main.o: In function main': /home/sercom\_backend/build/pundefined reference towordscounter\_destroy' collect2: error: ld returned 1 exit status Makefile:141: recipe for target 'tp' failed make: \*\*\* [tp] Error 1

#### paso 4



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#### Pruebas

# 

==00:00:00:00:00.000 549== Memcheck, a memory error detector ==00:00:00:00:00.000 549== Copyright (C) 2002-2015, and GNU GPL'd, by Julian Seward et al. ==00:00:00:00.000 549== Using Valgrind-3.11.0 and LibVEX; rerun with -h for copyright info ==00:00:00:00:00.000 549== ./tp input\_tda.txt ==00:00:00:00.000 549== Parent PID: 548 ==00:00:00:00.000Command: 549 = = = 00:00:00:00:00.567 549 = = = 00:00:00:00.567 549 = = FILE DESCRIPTORS: 3 open at exit.==00:00:00:00.567549== Open file descriptor 2: input tda.txt ==00:00:00:00.567549== at 0x4113813: open nocancel (syscall-template.S:84) ==00:00:00:00:567 549== by 0x40A79BF: IO file open  $(fileops.c:221) ==00:00:00:00:67549 == by 0x40A7B40: _IO_file_fopen@@GLIBC_2.1 (fileops.c:328)$ ==00:00:00:00:567 549== by 0x409C2D0:  $_{\text{___fopen_internal}}$  (iofopen.c:86) ==00:00:00:00.567  $549 == by 0x409C33D: fopen@@GLIBC_2.1 (iofopen.c:97) == 00:00:00:00.567 549 == by 0x8048517:$ main  $(paso4\_main.c:14) ==00:00:00:00:00:567 549== ==00:00:00:00:567 549== Open file description$ tor 1: /mnt/data/sercom/tmp/prueba.392420.stdout ==00:00:00:00:567 549== ==00:00:00:00.567549 == = -00:00:00:00:567 549 == Open file descriptor 0: /home/sercom\_backend/test/valgrind.out ==00:00:00:00.567 549== ==00:00:00:00.567 549== ==00:00:00:00.567 549== ==00:00:00:00.567549 = HEAP SUMMARY: = -00:00:00:00:567 549 = in use at exit: 1,849 bytes in 216 blocks==00:00:00:00.567 549== total heap usage: 218 allocs, 2 frees, 10,041 bytes allocated ==00:00:00:00.567549 == = -00:00:00:00:568 549 == 344 bytes in 1 blocks are still reachable in loss record 1 of 2 ==00:00:00:00.568 549== at 0x402D17C: malloc (in /usr/lib/valgrind/vgpreload memcheck-x86 $linux.so) = = 00:00:00:00:568 \ 549 == by \ 0x409C279: \underline{\hspace{0.5cm}} fopen\_internal \ (iofopen.c:69) = = 00:00:00:00:568 \ bulleton{Adjusted to the content of the content$  $549 == by 0x409C33D: fopen@@GLIBC_2.1 (iofopen.c:97) == 00:00:00:00.568 549 == by 0x8048517:$ main (paso4\_main.c:14) ==00:00:00:00:00:68 549===00:00:00:00:00:568 549==1,505 bytes in 215 blocks are definitely lost in loss record 2 of 2 = 00:00:00:00:68 549== at 0x402D17C: malloc (in /usr/lib/valgrind/vgpreload memcheck-x86-linux.so) ==00:00:00:00.568 549== by 0x8048685:  $wordscounter\_next\_state \quad (paso4\_wordscounter.c:35) \quad ==00:00:00:00:00.568 \quad 549 == \quad by \quad 0x8048755:$ wordscounter process (paso4 wordscounter.c:30) ==00:00:00:00:00.568 549== by 0x8048535: (paso4 main.c:24) ==00:00:00:00:568 549== ==00:00:00:00:568 549== LEAK SUMMARY:==00:00:00:00:00.568 549== definitely lost: 1,505 bytes in 215 blocks ==00:00:00:00:00.568 549== indirectly lost: 0 bytes in 0 blocks ==00:00:00:00:00:568 549== possibly lost: 0 bytes in 0 blocks ==00:00:00:00:568549 == still reachable: 344 bytes in 1 blocks ==00:00:00:00:568 549 == suppressed: 0 bytes in 0 blocks ==00:00:00:00.568 549===00:00:00:00.568 549== For counts of detected and suppressed errors, rerun with: -v ==00:00:00:00:568 549== ERROR SUMMARY: 1 errors from 1 contexts (suppressed: 0 from 0) [SERCOM] Summary [SERCOM] Command Line: /usr/bin/valgrind -tool=memcheck -tracechildren=yes -track-fds=yes -time-stamp=yes -num-callers=20 -error-exitcode=42 -leak-check=full -leak-resolution=med -log-file=valgrind.out -show-reachable=yes -suppressions=suppressions.txt [SER-COM Error code configured for Valgrind: 42. [SERCOM] Valgrind execution result: 42. [SERCOM] Valgrind result: Failure.

 $==00:00:00:00:00.000\ 510==\ Memcheck,\ a\ memory\ error\ detector\ ==00:00:00:00:00.000\ 510==\ Copyright\ (C)\ 2002-2015,\ and\ GNU\ GPL'd,\ by\ Julian\ Seward\ et\ al.\ ==00:00:00:00:00.000\ 510==\ Using\ Valgrind-3.11.0\ and\ LibVEX;\ rerun\ with\ -h\ for\ copyright\ info\ ==00:00:00:00:00.000\ 510==\ Command:\ ./tp\ input\_extremely\_long\_filename.txt\ ==00:00:00:00.000\ 510==\ Parent\ PID:\ 509\ ==00:00:00:00:00.000$ 

 $510 == 00:00:00:00.547 510 *** memcpy_chk: buffer overflow detected ***: program terminated$ ==00:00:00:00.547 510== at 0x402FD97: ??? (in /usr/lib/valgrind/vgpreload memcheck-x86-linux.so)  $==00:00:00:00.547\ 510==\ by\ 0x40346EB: \underline{\hspace{1.5cm}} memcpy\_chk\ (in\ /usr/lib/valgrind/vgpreload\_memcheck-liberary) - (in\ /usr/lib/valgrind/vgpreload\_me$ x86-linux.so) ==00:00:00:00.547 510== by 0x804850A: memcpy (string3.h:53) ==00:00:00:00.547 510 = by 0x804850A: main (paso4\_main.c:13) = =00:00:00:00:064 510 = = =00:00:00:00:00.564510 = FILE DESCRIPTORS: 2 open at exit. = -00:00:00:00:064 510 = Open file descriptor/mnt/data/sercom/tmp/prueba.392411.stdout ==00:00:00:00.564 510== ==00:00:00:00.564510 == =00:00:00:00:00:564 510 == Open file descriptor 0: /home/sercom\_backend/test/valgrind.out  $==00:00:00:00:00.564 \ 510== ==00:00:00:00.564 \ 510== ==00:00:00:00.564 \ 510== ==00:00:00:00.564$ 510 == HEAP SUMMARY: ==00:00:00:00:564 510== in use at exit: 0 bytes in 0 blocks ==00:00:00:00.564 510== total heap usage: 0 allocs, 0 frees, 0 bytes allocated ==00:00:00:00.564510 == = -00:00:00:00:00:564 510 == All heap blocks were freed – no leaks are possible == 00:00:00:00:00:564510 == =00:00:00:00:00.564 510 == For counts of detected and suppressed errors, rerun with: -v ==00:00:00:00.564 510== ERROR SUMMARY: 0 errors from 0 contexts (suppressed: 0 from 0) [SERCOM] Summary [SERCOM] Command Line: /usr/bin/valgrind -tool=memcheck -tracechildren=yes -track-fds=yes -time-stamp=yes -num-callers=20 -error-exitcode=42 -leak-check=full -leak-resolution=med -log-file=valgrind.out -show-reachable=yes -suppressions=suppressions.txt [SER-COM Error code configured for Valgrind: 42. [SERCOM] Valgrind execution result: 1. [SERCOM] Valgrind result: Success.

#### paso 5

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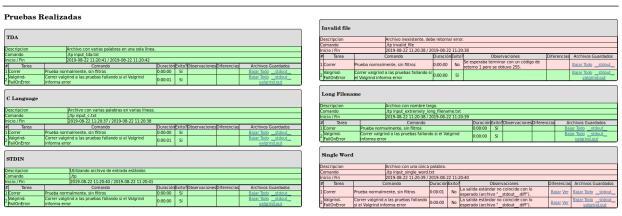
# Ira: ---- ×

# Comandos Ejecutados

#	Tarea	Comando	Inicio	Duración	Exito?	Observaciones Dif	ferencias	Archivos Guardados
1	Codificación	python ./cpplint.pyextensions=h,hpp,c,cpp filter=`cat filter_options` `find -regextype posix-egrep -regex '.*\.(h hpp c cpp)'`	2019-08-22 11:20:36	0:00:00	Sí			Bajar Todo stdouterr
1	Compilar C99 simple	make -f Makefile	2019-08-22 11:20:36	0:00:01	Sí			Bajar Todo stdouterr

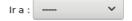
aaa

#### Pruebas



paso 6

# 100029 (Federico del Mazo) - 0.1



Corrida Bajar Navegar PDF

Corrida Bajar Navegar PDF

Corrida Bajar Navegar PDF

Corrida Bajar Navegar PDF

# Comandos Ejecutados

#	Tarea	Comando	Inicio	Duración	Exito?	Observaciones Dife	ferencias	Archivos Guardados
	Verificar Normas		2019-08-22 11:31:28	0:00:00	Sí			Bajar Todo stdouterr
	Compilar C99 simple	make -f Makefile	2019-08-22 11:31:28	0:00:01	Sí			Bajar Todo stdouterr

aaa

# 

# paso 7

0.1 (Contador de Palabras)

0.1 (Contador de Palabras)

0.1 (Contador de Palabras)

0.1 (Contador de Palabras)

# Administración de Entregas Ejercicio Resultado Fecha Duración Observaciones Operaciones 0.1 (Contador de Palabras) Aceptado 2019-08-22 11:31:20 0:00:06 Corrida Baiar Navegar PDF 0.1 (Contador de Palabras) Rechazado 2019-08-22 11:20:25 0:00:08 Corrida Baiar Navegar PDF

Rechazado 2019-08-22 11:17:57

Rechazado 2019-08-22 11:16:23

Rechazado 2019-08-22 11:10:23

Rechazado 2019-08-22 11:05:53

aaa

0:00:03

0:00:01

0:00:01