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EECS 665 Lab1
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1. Quickly describe the exact changes you made and why you made them. Discuss how you

approached the problem and exactly how you determined the source of the problem. Discuss

which debugger commands you found most helpful.

When I use the GDB to try to find the error, the terminal shows me these messages:

"Program received signal SIGSEGV, Segmentation fault.
lookup (s=0x7ffff7fe11f2 "LUCY", dotree=1) at lookup.c:466
466   s1 = dp->word;"

So I can go to the line 466 to check the error directly. And I find the error is because the

"for loop" misses the condition. If the loop does not have any conditions, it may not be

terminated. So we need to add the condition "dp != NULL" in the "for loop".

2. List (in order) the modifications of my_watch, including both the old value and new value it

was set with.

After adding watch point, I can track the difference between old values of new values when

I continue to run the program every time. Here are all outputs from terminal:

(gdb) watch my_watch
Hardware watchpoint 1: my_watch

Old value = 0
New value = 2
0x000000000040971f in main (argc=3, argv=0x7fffffffd490) at ispell.c:303
*303   arglen = my_watch = strlen (*argv);*
(gdb) c
Continuing.
Hardware watchpoint 1: my_watch

Old value = 2
New value = 248

linit () at lookup.c:391
391   inited = 1;
(gdb) c
Continuing.
Hardware watchpoint 1: my_watch

Old value = 248
New value = 228
trydict (filename=0x616be0 <personaldict> "", home=0x0,
*   prefix=0x410b5e ".ispell_", suffix=0x7fffffffd994 "americanmed+")*
*   at tree.c:273*
273   if (home == NULL)
(gdb) c
Continuing.
Hardware watchpoint 1: my_watch

Old value = 228
New value = 208
trydict (filename=0x7fffffffc330 "", home=0x7fffffffe90e "/home/wfei26",
*   prefix=0x410b5e ".ispell_", suffix=0x7fffffffd994 "americanmed+")*
*   at tree.c:273*
273   if (home == NULL)
(gdb) c
Continuing.
Hardware watchpoint 1: my_watch

Old value = 208
New value = 188
trydict (filename=0x616be0 <personaldict> "", home=0x0,
*   prefix=0x410b5e ".ispell_", suffix=0x410b67 "words") at tree.c:273*
273   if (home == NULL)
(gdb) c
Continuing.
Hardware watchpoint 1: my_watch

Old value = 188
New value = 168
trydict (filename=0x7fffffffc330 "", home=0x7fffffffe90e "/home/wfei26",
*   prefix=0x410b5e ".ispell_", suffix=0x410b67 "words") at tree.c:273*
273   if (home == NULL)
(gdb) c
Continuing.
Hardware watchpoint 1: my_watch

Old value = 168
New value = 169

treeinit (p=0x0, LibDict=0x7fffffffd994 "americanmed+") at tree.c:167
167   if (dictf == NULL && secondf == NULL)
(gdb) c
Continuing.
Hardware watchpoint 1: my_watch

Old value = 169
New value = 149
trydict (filename=0x616be0 <personaldict> "", home=0x0,
*   prefix=0x410b5e ".ispell_", suffix=0x7fffffffd994 "americanmed+")*
*   at tree.c:273*
273   if (home == NULL)
(gdb) c
Continuing.
Hardware watchpoint 1: my_watch

Old value = 149
New value = 129
trydict (filename=0x7fffffffc330 "", home=0x7fffffffe90e "/home/wfei26",
*   prefix=0x410b5e ".ispell_", suffix=0x7fffffffd994 "americanmed+")*
*   at tree.c:273*
273   if (home == NULL)
(gdb) c
Continuing.
Hardware watchpoint 1: my_watch

Old value = 129
New value = 180
treeinit (p=0x0, LibDict=0x7fffffffd994 "americanmed+") at tree.c:173
173   if (dictf == NULL && secondf == NULL)
(gdb) c
Continuing.
Hardware watchpoint 1: my_watch

Old value = 180
New value = 160
trydict (filename=0x616be0 <personaldict> "", home=0x0,
*   prefix=0x410b5e ".ispell_", suffix=0x410b67 "words") at tree.c:273*
273   if (home == NULL)
(gdb) c
Continuing.
Hardware watchpoint 1: my_watch

Old value = 160
New value = 140
trydict (filename=0x7fffffffc330 "", home=0x7fffffffe90e "/home/wfei26",

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    prefix=0x410b5e ".ispell_", suffix=0x410b67 "words") at tree.c:273
273        if (home == NULL)
(gdb) c
Continuing.
[Inferior 1 (process 3391) exited normally]
(gdb) c
The program is not being run.
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