EECS 665, Friday 4:00 Section
Lab 01
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Question 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.

I changed line 447 of lookup.c by adding the condition “NULL != dp” to the for loop construct. I used GDB to locate the error, by running the code with the given parameters. This gave me a line number and a file to look at. Then, I opened the file and looked at the code around that line number. Back in GDB, I set a breakpoint at that function and ran the code again. This allowed me to step through the code and examine the value of dotree and dp. At one point, dp→next was dereferenced when dp→next was null. Checking for null in the for loop resolved the issue.

The most helpful commands were breakpoint (b), print (p), print type (ptype), and step into (s). I also found the ability to set my own variables and call functions while debugging useful to rule out the dehashing function.

Question 2: List (in order) the modifications of my_watch, including both the old value and new value it was set with.

I used the logger to track all the changes in a single run of the program (set logger on). This post was helpful in doing so:

https://stackoverflow.com/questions/31918676/how-to-record-watch-command-output-to-a-file-in-gdb

(old, new) =
(0,2)
(2,248)
(248,228)
(228,208)
(208,188)
(188,168)
(168,169)
(169,149)
(149,129)
(129,180)
(180,160)
(160,140)