

## Lab 7 Report

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The objective of this lab was present a finished product that would create a symbol table for a C-like language, given the source code provided we were to implement missing features. Without the missing implemented missing features the executable will fail. The finished product should be able to build and print out a symbol table for the language the csym compiler framework parses.

The features we were to implement were the enterblock, leaveblock and the dump functions within "the sym.c" file. The "sem\_sym.c" file also needed fname, ftail, blockdcl and btail to be implemented. A completed Lab will not only build and print the symbol table but it will do it at the correct time and group things depending on their level. It is stated that the most important elements of the output for this lab are the variable name and the block level.

When it comes to my individual lab I looked at the grammar (.y file ), looked through the functions I was dealing with and tried to derive them based on the other variables given in the source code. My implementation almost works, it reads in all the variables and have them in there correct block levels, but it doesn't finish. I did not implement my leaveblock correctly so I never freed up the memory. My implementation of the lab correctly works with a single main but once it is given multiple function calls for example test01 and test02 in the demo, my implementation will skip over variables within the declaration of the function which led me to believe that my problem was in fname. I was wrong.

I definitely had the most trouble advancing anywhere in this lab everything I had to research and learn online, the slides this lab didn't really help at all, but maybe that was the point and they weren't suppose to, so when I got an error I had little idea where to look.