Corbin Charpentier

Lab8 Report

The objective of this lab was to finish implementing code used internally to generate a symbole table for the csym framework.

Seven functions needed implementing: enterblock, leaveblock, dump, fname, ftail, fhead, blockdcl, and btail. Enter block and leaveblock were public functions for the document, sym.h, while the latter four were implemented in sem_sym.c. These functions were responsible for changing the level state and removing items from id_table when necessary. For example, each time a function declaration or "{" is parsed (handled with fname() and blockdcl(), respectively), the block global block level is increased via enterblock(), and each time "}" is parsed (handled by ftail and btail, depending on the context), block level is deceased via a call to decreaseblock(). Decreaseblock() also removes identifiers that have fallen out of scope (because of the level decrease) from the symbol table and calls dump(), which simply prints the identifiers for that particular level.

The biggest problem I had with this lab was wrapping my head around the program. It was roughly 5% coding and 95% figuring out how the program worked.