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PA4: csem

# CSEM

The program I set out to write is called csem, which handles the semantic action routines needed for intermediate code generation. The program is written in the C language and handles the parsed tokens of the front end of the compiler. The action routines allow for the backend to create the target language.

First, I set out to follow how the program progressed from beginning to end to get a feel for what the semantic action routine functions were doing. However, this was overwhelming so I looked through the text to find information about how these functions should work and was really looking for some examples but the information was somewhat vague to me but did give me some understanding of some of the functions. In the end, I looked at how the structs for the records were made and the information they kept and that gave me enough to get started. I was able to progress at a slow pace, though I did not get all the way finished and I am not sure that they are correct, however they do generate a good deal of the output needed for the two test files.

Most of my debugging was done via print statements and generally paying attention to what the inputs from the structs were. Some of the debugging was trial and error but not nearly as much as print statements.

The biggest issue I had and still have is knowing exactly which function to use for the inputs. The op1, rel and set all seemed to be similar and each seemed as far as outputs go to produce similar if not the same statement. Another issue was not knowing if more functions should be implemented before another in order for them to work and as I said following the code as it is moving through everything was daunting. My biggest factor in not completing the assignment was time, which has been limited due to the workload of other classes. I thought the assignment was a good one but one that probably would have been better served with a lab so questions could have been asked frequently.