



Compiler Homework #2

SYNTAX ANALYZER

Team 1

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How it works

First, we read the output of the lexical analyser and convert the token names into the names used in the CFG given with the homework subject. We fill the array “tokens”.

Then we enter in the main function called “check_syntax”. In this function we use the array “slr” representing the SLR table and the array “cfg” representing the CFG to shift and reduce our terminals. To achieve this, we use the list “stack”, the variable “current_state” representing the line to read in the table, the well-called “next_sym” variable and the “shift_cursor” index.

We use all of this like it has been seen during class.

Issues

We are facing issues with our SLR table due to shift-reduce conflicts. We maybe made mistakes in the construction of our DFA....

That said, these issues are making our program “dumb”, it makes mistakes while “if” conditions and declarations are involved in a certain order.

<pre>int main(int a, int b) { int c; while (a == 2) { b = b + 1; } return 1; }</pre>	<pre>int main(int a, int b) { while (a == 2) { b = b + 1; } int c; return 1; }</pre>
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