Description of Calculator Project in C

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My program can calculate the results of many expressions. It consists of a Scanner, Parser and some other necessary functions.

Scanner I have a Function that takes in the read String, and tokenizes it based on spaces and puts everything in a linked list. The Strings are differentiated based on semicolons right in the beginning when the file is being read. Later this linked list of tokens are passed on to the parser.

Parser My Parser analyzes the the token values from the scanner and returns the result of the expression.

My CFG:

$Program \rightarrow StatementList$
$StatementList \rightarrow Statement|\epsilon$
$Statement \rightarrow id : Expression|readid|writeexpr$
$Expression \rightarrow TermTermTail$
$TermTail \rightarrow +TermTermTail|\epsilon$
$TermTail \rightarrow -TermTermTail|\epsilon$
$FactorTail \rightarrow *FactorFactorTail|\epsilon$
$FactorTail \rightarrow /FactorFactorTail|\epsilon$

$FactorTail \rightarrow \%FactorFactorTail|\epsilon$
$Factor \rightarrow (Expression)|id|number$

First Sets
Program [id, read, write, $$]
StatementList [id, read, write]
Statement [id, read, write]
Expression [(, id, number]
TermTail [+, -]
Term [(, id, number]
FactorTail [*, /, %]
Factor [(, id, number]

Follow Sets
id [+, -, *, /, %,), :=, read, write, $$]
number [+, -, *, /, %,), id, read, write, $$]
read [id]
write [(, id, number]
([(, id, number]
) [+, -, *, /, %, id, read, write, $$]
:= [(, id, number]
+ [(, id, number]
- [(, id, number]
* [(, id, number]
/ [(, id, number]
% [(, id, number]
$$ $\varnothing$
program $\varnothing$

StatementList [$$]
Statement [id, read, write, $$]