

We have implemented most of the requested features in the assignment.

For the new operators we have defined those that occupy multiple characters as tokens, which are OR, AND, EQ, NEQ, LEQ and GEQ. The other operators, since they are a single character, have no need of a specific token. What all of them do need is precedence. We have taken them from the given documentation about operators.

Another thing we had to implement was printing. We had 2 separate cases that had to be treated differently:

- Printing fixed strings was mainly handled by yylex because it already finds strings between quotes, so it was as simple as setting the production to recognize the token PUTS followed by the string and print "(print string)". We should also reintroduce the quoting marks since yylex deleted them.
- Printing strings with expressions and variable substrings was trickier and we were recommended not to try and parse the actual string. We instead were told to print the expressions separately with "(princ expression)". We needed to implement recursivity since we don't fix the amount of possible entries.

The last feature implemented were while loops. We have defined a new nonterminal control\_sentence that will not be followed by ";". Here we define the structure of the while and make the necessary semantic actions. The new nonterminal will be useful later when we need to implement more control statements.