

Gramática da linguagem PasC Corrigida

Obs.: Para uma melhor observação os terminais serão marcados com negrito.

$\text{prog} \rightarrow \text{"program"} \text{"id"} \text{body}$
 $\text{body} \rightarrow \text{decl-list} \text{"{" stmt-list "}"}$
 $\text{decl-list} \rightarrow \text{decl} \text{";" decl-list} \mid \epsilon$
 $\text{decl} \rightarrow \text{type id-list}$
 $\text{type} \rightarrow \text{"num"} \mid \text{"char"}$
 $\text{id-list} \rightarrow \text{"id"} \text{id-list'}$
 $\text{id-list'} \rightarrow \text{"," id-list} \mid \epsilon$
 $\text{stmt-list} \rightarrow \text{stmt} \text{";" stmt-list} \mid \epsilon$
 $\text{stmt} \rightarrow \text{assign-stmt} \mid \text{if-stmt} \mid \text{while-stmt} \mid \text{read-stmt} \mid \text{write-stmt}$
 $\text{assign-stmt} \rightarrow \text{"id"} \text{"=" simple_expr}$
 $\text{if-stmt} \rightarrow \text{"if"} \text{"(" condition ")" "{" stmt-list "}" if-stmt'}$
 $\text{if-stmt'} \rightarrow \text{"else"} \text{"{" stmt-list "}" } \mid \epsilon$
 $\text{condition} \rightarrow \text{expression}$
 $\text{while-stmt} \rightarrow \text{stmt-prefix} \text{"{" stmt-list "}"}$
 $\text{stmt-prefix} \rightarrow \text{"while"} \text{"(" condition ")"}$
 $\text{read-stmt} \rightarrow \text{"read"} \text{"id"}$
 $\text{write-stmt} \rightarrow \text{"write"} \text{writable}$
 $\text{writable} \rightarrow \text{simple-expr} \mid \text{"literal"}$
 $\text{expression} \rightarrow \text{simple-expr expression'}$
 $\text{expression'} \rightarrow \text{relop simple-expr} \mid \epsilon$
 $\text{simple-expr} \rightarrow \text{term simple-expr'}$
 $\text{simple-expr'} \rightarrow \text{addop term simple-expr'} \mid \epsilon$
 $\text{term} \rightarrow \text{factor-a term'}$
 $\text{term'} \rightarrow \text{mulop factor-a term'} \mid \epsilon$
 $\text{factor-a} \rightarrow \text{factor} \mid \text{"not"} \text{factor}$
 $\text{factor} \rightarrow \text{"id"} \mid \text{constant} \mid \text{"(" expression ")"}$
 $\text{relop} \rightarrow \text{"=="} \mid \text{">"} \mid \text{">="} \mid \text{"<"} \mid \text{"<="} \mid \text{"!="}$

$\text{addop} \rightarrow "+" \mid "-" \mid \textbf{or}$

$\text{mulop} \rightarrow "*" \mid "/" \mid \textbf{and}$

$\text{constant} \rightarrow \textbf{num_const} \mid \textbf{char_const}$