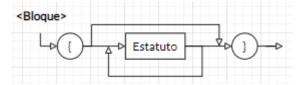
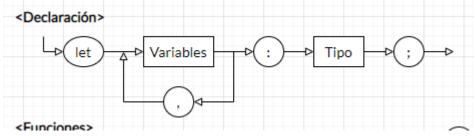


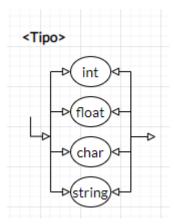
Programa → program <id>; <Declaración> <Funciones> main() <Bloque>



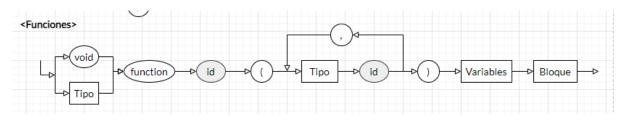
Bloque → {<Bloque_prime>}
Bloque_prime → <Estatuto>; <Bloque_prime> | eps



 $\label{eq:decomposition} $\operatorname{Declaración} \to \operatorname{Declaración_base} = \operatorname{Coelaración_base} \to \operatorname{Declaración_prime} : \operatorname{Coelaración_prime} : \operatorname{Coelaración_prime} \to \operatorname{Coelaración_prime} \to \operatorname{Coelaración_prime} : \operatorname{Coelaración_prime} \to \operatorname{Coelaración_prime} : \operatorname{$



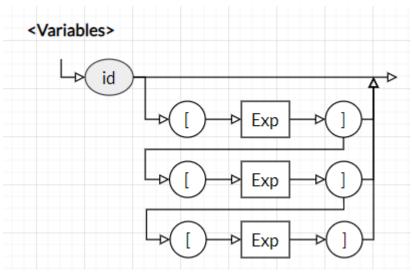
Tipo → int | float | char | string



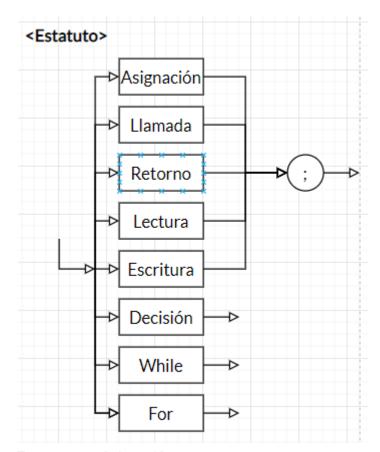
Funciones → <Funcion_base> | <Funcion_base> <Funciones>

Funciones_base \rightarrow function <Func_Type> <id> (<Funciones_prime>) <Declaración> <Bloque>

Funciones_prime \rightarrow <Tipo> <id> | <Tipo> <id> , <Funciones_prime> Func_type \rightarrow void | <Tipo>

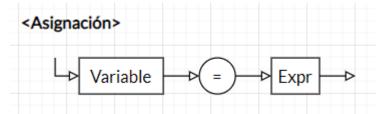


Variable \rightarrow <id> | <id> [<Exp>] | <id> [<Exp>][<Exp>] | <id> [<Exp>][<Exp>][<Exp>]

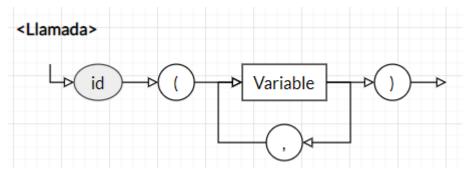


Estatuto → <Asignación> ;

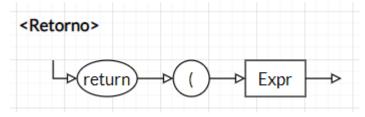
| <Llamada>; | <Retorno>; | <Lectura>; | <Escritura>; | <Decisión> | <While> | <For> | <Expr>



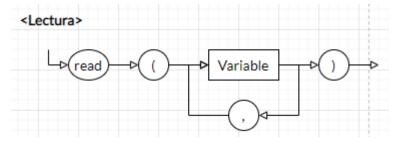
Asignación → <Variable> = <Expr>



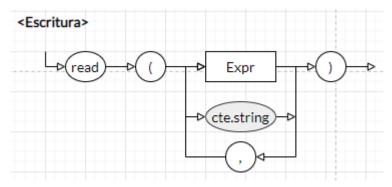
Llamada \rightarrow <id> (<Llamada_prime>) <Llamada_prime> \rightarrow <Exp> | <Exp>, <Llamada_prime>



Retorno → return (<Expr>)

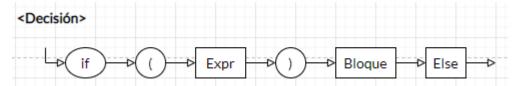


Lectura \rightarrow read (<Lectura_prime>) Lectura_prime \rightarrow \rightarrow <Variable> | <Variable>, <Lectura_prime>

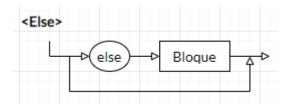


Escritura \rightarrow write (<Escritura_prime>) Escritura_prime \rightarrow <Expr>

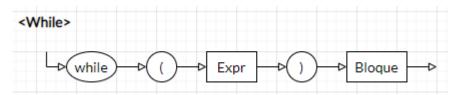
| <Cte_string>
| <Expr>, <Escritura_prime>
| <Cte_string>, <Escritura_prime>



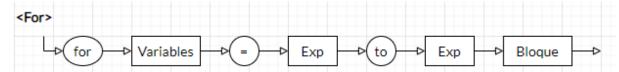
Decisión → if (<Expr>) <Bloque> <Else>



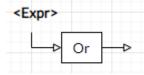
 $Else \rightarrow else < Bloque > | eps$



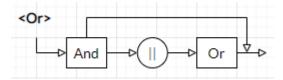
While \rightarrow while (<Expr>) <Bloque>



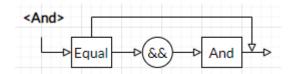
For \rightarrow for <Variable> = <Exp> to <Exp> <Bloque>



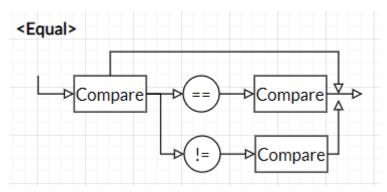
Expr -> <Or>



 $\begin{array}{c} \text{Or} \rightarrow \text{<And>} \\ | \text{<And>} || \text{<Or>} \end{array}$



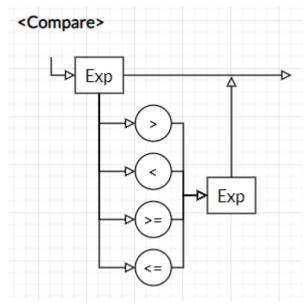
And \rightarrow <Equal> | <Equal> && <And>



Equal → <Compare>

| <Compare> == <Compare>

| <Compare> != <Compare>



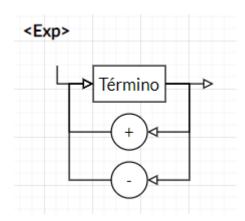
 $Compare \rightarrow {<} Exp{>}$

| <Exp> > <Exp>

| <Exp> < <Exp>

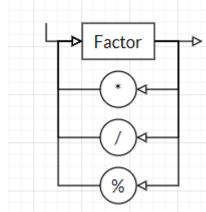
| <Exp> >= <Exp>

| <Exp> <= <Exp>



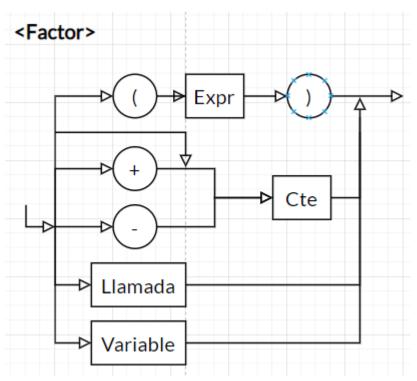
 $\begin{array}{c} \mathsf{Exp} \to \mathsf{<Termino>} \\ | \: \mathsf{<Termino>} \: + \: \mathsf{<Exp>} \\ | \: \mathsf{<Termino>} \: - \: \mathsf{<Exp>} \end{array}$

<Término>



Termino \rightarrow <Factor>

- | <Factor> * <Termino>
- | <Factor> / <Termino>
- | <Factor> % <Termino>



 $\begin{tabular}{ll} Factor \rightarrow &<Variable> & & & & & & & & \\ & & & & & & & & & \\ & & & & & & & & \\ & & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & \\ & & & \\ & \\ & & \\ & \\ & & \\ & \\ & \\ & & \\ & \\ & \\ & \\ & &$

