

# Gramática proyecto final

PROGRAM -> DECLARATION

---

## *Declaraciones*

DECLARATION -> FUN\_DECL DECLARATION  
-> VAR\_DECL DECLARATION  
-> STATEMENT DECLARATION  
->  $\epsilon$

FUN\_DECL -> **fun** FUNCTION

VAR\_DECL -> **var id** VAR\_INIT ;

VAR\_INIT -> = EXPRESSION  
->  $\epsilon$

---

## *Sentencias*

STATEMENT -> EXPR\_STMT  
-> FOR\_STMT  
-> IF\_STMT  
-> PRINT\_STMT  
-> RETURN\_STMT  
-> WHILE\_STMT  
-> BLOCK

EXPR\_STMT -> EXPRESSION ;

FOR\_STMT -> **for** ( FOR\_STMT\_1 FOR\_STMT\_2 FOR\_STMT\_3 ) STATEMENT

FOR\_STMT\_1 -> VAR\_DECL  
-> EXPR\_STMT  
-> ;

FOR\_STMT\_2 -> EXPRESSION;  
-> ;

FOR\_STMT\_3 -> EXPRESSION

	->	$\epsilon$
IF_STMT	->	<b>if</b> (EXPRESSION) STATEMENT ELSE_STATEMENT
ELSE_STATEMENT	->	<b>else</b> STATEMENT
	->	$\epsilon$
PRINT_STMT	->	<b>print</b> EXPRESSION ;
RETURN_STMT	->	<b>return</b> RETURN_EXP_OPC ;
RETURN_EXP_OPC	->	EXPRESSION
	->	$\epsilon$
WHILE_STMT	->	<b>while</b> ( EXPRESSION ) STATEMENT
BLOCK	->	{ DECLARATION }

---

		<i>Expresiones</i>
EXPRESSION	->	ASSIGNMENT
ASSIGNMENT	->	LOGIC_OR ASSIGNMENT_OPC
ASSIGNMENT_OPC	->	= EXPRESSION
	->	$\epsilon$
LOGIC_OR	->	LOGIC_AND LOGIC_OR_2
LOGIC_OR_2	->	<b>or</b> LOGIC_AND LOGIC_OR_2
	->	$\epsilon$
LOGIC_AND	->	EQUALITY LOGIC_AND_2
LOGIC_AND_2	->	<b>and</b> EQUALITY LOGIC_AND_2
	->	$\epsilon$
EQUALITY	->	COMPARISON EQUALITY_2
EQUALITY_2	->	<b>!=</b> COMPARISON EQUALITY_2

	-> == COMPARISON EQUALITY_2
	-> $\epsilon$
COMPARISON	-> TERM COMPARISON_2
COMPARISON_2	-> > TERM COMPARISON_2
	-> >= TERM COMPARISON_2
	-> < TERM COMPARISON_2
	-> <= TERM COMPARISON_2
	-> $\epsilon$
TERM	-> FACTOR TERM_2
TERM_2	-> - FACTOR TERM_2
	-> + FACTOR TERM_2
	-> $\epsilon$
FACTOR	-> UNARY FACTOR_2
FACTOR_2	-> / UNARY FACTOR_2
	-> * UNARY FACTOR_2
	-> $\epsilon$
UNARY	-> ! UNARY
	-> - UNARY
	-> CALL
CALL	-> PRIMARY CALL_2
CALL_2	-> ( ARGUMENTS_OPC ) CALL_2
	-> $\epsilon$
PRIMARY	-> true
	-> false
	-> null
	-> number
	-> string
	-> id
	-> ( EXPRESSION )

---

*Otras*

FUNCTION           -> **id ( PARAMETERS\_OPC ) BLOCK**

FUNCTIONS           -> FUN\_DECL FUNCTIONS  
                      -> **ε**

PARAMETERS\_OPC   -> PARAMETERS  
                      -> **ε**

PARAMETERS        -> **id** PARAMETERS\_2

PARAMETERS\_2      -> **, id** PARAMETERS\_2  
                      -> **ε**

ARGUMENTS\_OPC    -> EXPRESSION ARGUMENTS  
                      -> **ε**

ARGUMENTS         -> **, EXPRESSION ARGUMENTS**  
                      -> **ε**