

Gramatica

No Terminales ::= <INICIO>, <SENTENCIAS>, <SENTENCIA>, <DVARIABLES>, <LIDS>, <IDS>, <TIPO>, <ASIGNARV>, <CREATETABLE>, <LCOLUMNAS>, <COLUMNAS>, <ALERTABLE>, <DROPTABLE>, <INSERT>, <LCOLUM>, <IDINSERT>, <SELECT>, <LID>, <SCOL>, <UPDATE>, <LUPDATE>, <TRUNCATE>, <DELETE>, <BEGINEND>, <INSTRUCCIONES>, <INSTRUCCION>, <IF>, <CASE>, <INSTRUCASE>, <INCASE>, <WHILE>, <FOR>, <BREAK>, <CONTINUE>, <RETURN>, <FUNCION>, <PARAMETOS>, <PARAMETRO>, <METODO>, <LLAMADA>, <LLAMADAS>, <PRINT>, <LOWER>, <UPPER>, <ROUND>, <LEN>, <TRUNCATES>, <TYPEOF>, <EXP>.

Terminal ::= "add", "alter", "and", "as", "begin", "boolean", "break", "case", "cast", "column", "continue", "create", "date", "declare", "default", "delete", "double", "drop", "else", "end", "false", "for", "from", "function", "if", "in", "insert", "int", "into", "len", "lower", "not", "or", "procedure", "print", "rename", "return", "returns", "round", "select", "set", "table", "then", "to", "truncate", "true", "typeof", "update", "varchar", "values", "where", "while", "+", "-", "*", "/", "%", "(", ")", ".", "=", "", ":", ";", "!", "<=", ">=", ">", "<"

<INICIO> ::= <SENTENCIAS> EOF ;

<SENTENCIAS> ::= <SENTENCIAS> <SENTENCIA>
| <SENTENCIA> ;

<SENTENCIA> ::= <CREATETABLE>

| <ALERTABLE>

| <DROPTABLE>

| <INSERT>

| <SELECT>

| <UPDATE>

| <TRUNCATE>

| <DELETE>

| <BEGINEND>

;

<DVARIABLES> ::= "declare" <LID>S ",",

;

<LIDS> ::= <LIDS> <IDS>

| <IDS>

;

<IDS> ::= "id" <TIPO> ",",

| "id" <TIPO>

| "id" <TIPO> "default" <EXP>

;

<TIPO> ::= "integer"

| "boolean"

| "date"

| "double"

| "varchar"

;

<ASIGNARV> ::= "set" "id" "=" <EXP> "::~="

;

<CREATETABLE> ::= "create" "table" "idt" "(" <LCOLUMNAS> ")" ";";

<LCOLUMNAS> ::= <LCOLUMNAS> <COLUMNAS>

| <COLUMNAS>

;

<COLUMNAS> ::= "idt" <TIPO> ", "

| "idt" <TIPO>

;

<ALERTABLE> ::= "alter" "table" "idt" "add" "idt" <TIPO> ", "

```
| "alter" "table" "idt" "drop" "column" "idt" ","  
| "alter" "table" "idt" "rename" "to" "idt" ","  
| "alter" "table" "idt" "rename" "column" "idt" "to" "idt" ","  
;  
;
```

<DROPTABLE> ::= "drop" "table" "idt" "," ;

<INSERT> ::= "insert" "into" "idt" "(" <LCOLUM> ")" "tvalues" "(" <LCOLUM> ")" ";" ;

<LCOLUM> ::= <LCOLUM> <IDINSERT>

| <IDINSERT>

;
;

<IDINSERT> ::= "idt" ","

| "idt"

| <EXP> ","

| <EXP>

;
;

<SELECT> ::= "select" <LID> "from" "idt" ","

| "select" <LID> "as" <LID> "from" "idt" ","

| "select" <LID> "from" "idt" "where" <EXP> ","

| "select" <LID> "as" <LID> "from" "idt" "where" <EXP> ","

| "select" <EXP> ","

| "select" <EXP> "as" "idt" ","

;
;

<LID> ::= <LID> <SCOL>

| <SCOL>

;
;

<SCOL> ::= "idt" ","

| "idt"

| "*" "

;

<UPDATE> ::= "update" "idt" "set" <LUPDATE> "where" <EXP> ";";

<LUPDATE> ::= <LUPDATE> <SUPDATE>

| <SUPDATE>

;

<SUPDATE> ::= <EXP> ","

| <EXP>

;

<TRUNCATE> ::= "truncate" "table" "idt" ";";

<DELETE> ::= "delete" "from" "idt" "where" <EXP> ";";

<BEGINEND> ::= "begin" <INSTRUCCIONES> "end" ";";

<INSTRUCCIONES> ::= <INSTRUCCIONES> <INSTRUCCION>

| <INSTRUCCION>

;

<UPDATE> ::= "tupdate" "idt" "tset" <LUPDATE> "where" <EXP> ";";

<LUPDATE> ::= <LUPDATE> <SUPDATE>

| <SUPDATE>

;

<SUPDATE> ::= <EXP> ","

| <EXP>

;

<TRUNCATE> ::= "truncate" "table" "idt" "," ;

<DELETE> ::= "delete" "from" "idt" "where" <EXP> ";" ;

<BEGINEND> ::= "begin" <INSTRUCCIONES> "end" "," ;

<INSTRUCCIONES> ::= <INSTRUCCIONES> <INSTRUCCION>

| <INSTRUCCION>

;

<INSTRUCCION> ::= <DVARIABLES>

| <ASIGNARV>

| <CREATETABLE>

| <ALERTABLE>

| <DROPTABLE>

| <INSERT>

| <SELECT>

| <UPDATE>

| <TRUNCATE>

| <DELETE>

| <IF>

| <CASE>
| <WHILE>
| <FOR>
| <BREAK>
| <CONTINUE>
| <RETURN>
| <FUNCION>
| <METODO>
| <LLAMADA>
| <PRINT>
| <LOWER>
| <UPPER>
| <ROUND>
| <LEN>
| <TRUNCATES>
| <TYPEOF>

;

<IF> ::= "if" <EXP> "then" <INSTRUCCIONES> "end" "if" ";;"
| "if" <EXP> "then" <INSTRUCCIONES> "else" <INSTRUCCIONES> "end" "if" ";;"
;

<CASE> ::= "case" "idt" <INSTRUCASE> "else" <EXP> "end" ";;"
| "case" <INSTRUCASE> "else" <EXP> "end" ";;"
;

<INSTRUCASE> ::= <INSTRUCASE> <INCASE>
| <INCASE>

;

<INCASE> ::= "when" <EXP> "then" <EXP>

;

<WHILE> ::= "while" <EXP> "begin" <INSTRUCCIONES> "end" ";;"

;

<FOR> ::= "for" <EXP> "in" <EXP> "punto" "punto" <EXP> "begin"
<INSTRUCCIONES> "end" ";;"

;

<BREAK> ::= "break" ";;"

;

<CONTINUE> ::= "continue" ";;"

;

<FUNCION> ::= "create" "function" "idt" "(" <PARAMETOS> ")" "returns" <TIPO>
"begin" <INSTRUCCIONES> "end" ";;"

;

<PARAMETOS> ::= <PARAMETOS> "," <PARAMETRO>

| <PARAMETRO>

;

<PARAMETRO> ::= "id" <TIPO>

;

<RETURN> ::= "treturn" <EXP> ";;"

;

<METODO> ::= "create" "metodo" "idt" <PARAMETOS> "as" "begin"
<INSTRUCCIONES> "end" ";;"

| "create" "metodo" "idt" "as" "begin" <INSTRUCCIONES> "end" ";;"

;

<LLAMADA> ::= "idt" "(" <LUPDATE> ")" ";;"

| "idt" "(" ")" ";;"

;

<LLAMADAS> ::= "idt" "(" <LUPDATE> ")"

| "idt" "(" ")"

;

<PRINT> ::= "print" <EXP> ";;"

;

<LOWER> ::= "lower" "(" <EXP> ")"

;

<UPPER> ::= "upper" "(" <EXP> ")"

;

<ROUND> ::= "round" "(" <EXP> "," <EXP> ")"

;

<LEN> ::= "len" "(" <EXP> ")"

;

<TRUNCATES> ::= "truncate" "(" <EXP> "," <EXP> ")"

;

<TYPEOF> ::= "typeof" "(" <EXP> ")"

;

<EXP> ::= <EXP> "+" <EXP>

| <EXP> "-" <EXP>

| <EXP> "*" <EXP>

| <EXP> "/" <EXP>

| <EXP> "%" <EXP>

| "-" <EXP> %prec "negativo"

| "(" <EXP> ")"

| <EXP> "=" <EXP>

| <EXP> "!=" <EXP>

| <EXP> "<" <EXP>

| <EXP> ">" <EXP>

| <EXP> "<=" <EXP>

| <EXP> ">=" <EXP>

| <EXP> "and" <EXP>

| <EXP> "or" <EXP>

| "not" <EXP>

| "id"

| "decimal"

| "entero"

| "fecha"

| "cadena"
| "true"
| "false"
| "idt"
| <LOWER>
| <UPPER>
| <ROUND>
| <LEN>
| <TRUNCATES>
| <TYPEOF>
| <LLAMADAS>
;