

Universidad San Carlos de Guatemala
Organización de Lenguajes y Computadores 1

Archivo de gramáticas

Proyecto 2

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Gramática Para el Archivo Json:

Terminales:

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

No Terminales:

<inicio> <lista_instrucciones> <instruccion> <declaracion> <tipo>

Producción:

<inicio> ::= <lista_instrucciones>

<lista_instrucciones> ::= <lista_instrucciones> <instruccion>
| <instruccion>

<instruccion> ::= <declaracion>

| "select" "@" <tipo> " ;"

| "print" <tipo> " ;"

| "print" <lista_instrucciones> " ;"

| "begin" <lista_instrucciones> "end" " ;"

| "if" <tipo> "then" <lista_instrucciones> "end" "if" " ;"

| "while" <tipo> <lista_instrucciones> "end" "while" " ;"

| "create" "table" <tipo> "(" <lista_instrucciones> ")" " ;"

| "variable" "int" " ;"

| "variable" "double" " ;"

| "variable" "date" " ;"

| "variable" "varchar" " ;"

| "variable" "true" " ;"

| "variable" "false" " ;"

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| "variable" "null" ","
| "variable" "int"
| "variable" "double"
| "variable" "date"
| "variable" "varchar"
| "variable" "true"
| "variable" "false"
| "variable" "null"
| "reales" ","
| "daten" ","
| "cadena" ","
| "variable" ","
| "@" "variable" ","
| "alter" "table" "variable" "add" <lista_instrucciones> ";"
| "alter" "table" "variable" "drop" "column" "variable" ";"
| "alter" "table" "variable" "rename" "to" <tipo> ";"
| "alter" "table" "variable" "rename" "column" "variable" "to" "variable" ";"
| "drop" "table" "variable" ";"
| "cast" "(" <tipo> "as" <tipo> ")"
| "insert" "into" "variable" "(" <lista_instrucciones> ")" "values" "(" <lista_in-
trucciones> ")" ";"
| "select" "variable" "from" "variable" ";"
| "select" "*" "from" "variable" ";"
| "case" <lista_instrucciones> "end" ";"
| "case" <tipo> <lista_instrucciones> "end" ";"
| "when" <tipo> "then" <lista_instrucciones> ";"
| "else" <lista_instrucciones> ";"
| "truncate" "table" "variable" ";"
| "select" "lower" "(" <tipo> ")" ";"

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| "select" "upper" "(" <tipo> ")" ";"
| "select" "round" "(" <tipo> "," <tipo> ")" ";"
| "select" "truncate" "(" <tipo> "," <tipo> ")" ";"
| "select" "typeof" "(" <tipo> ")" ";"
| "select" "len" "(" <tipo> ")" ";"
| "break" ";"
| "continue" ";"
| "for" <tipo> "in" <tipo> "punto" "punto" <tipo> <lista_instrucciones> "end" "for"
";"
| "create" "function" <tipo> "(" <lista_instrucciones> ")" "returns" <tipo>
<lista_instrucciones> "end" ";"
| "@" "variable" "int" ","
| "@" "variable" "double" ","
| "@" "variable" "date" ","
| "@" "variable" "varchar" ","
| "@" "variable" "true" ","
| "@" "variable" "false" ","
| "@" "variable" "null" ","
| "@" "variable" "int"
| "@" "variable" "double"
| "@" "variable" "date"
| "@" "variable" "varchar"
| "@" "variable" "true"
| "@" "variable" "false"
| "@" "variable" "null"
| "return" <tipo> ";"
| "create" "procedure" <tipo> <lista_instrucciones> "as" "begin" <lista_instruccio-
nes> "end" ";"
| "call" <tipo> "(" <lista_instrucciones> ")" ";"

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| "select" "@" "variable" "as" "variable" ";"

<declaracion>

: "set" "@" "variable" "=" <tipo>;"

| "declare" "@" "variable" <tipo>;"

| "declare" "@" "variable" "int" "default" <tipo>;"

| "declare" "@" "variable" "date" "default" <tipo>;"

| "declare" "@" "variable" "double" "default" <tipo>;"

| "declare" "@" "variable" "varchar" "default" <tipo>;"

| "declare" "@" "variable" "true" "default" <tipo>;"

| "declare" "@" "variable" "false" "default" <tipo>;"

| "declare" "@" "variable" NULL "default" <tipo>;"

<tipo>

: "int"

| "double"

| "date"

| "varchar"

| "true"

| "false"

| "null"

| "reales"

| "daten"

| "cadena"

| "variable"

| "@" "variable"

| <tipo> "+" <tipo>

| <tipo> "*" <tipo>

| <tipo> "-" <tipo>

| <tipo> "/" <tipo>

| <tipo> "%" <tipo>
| <tipo> "=" <tipo>
| <tipo> "!=" <tipo>
| <tipo> "<" <tipo>
| <tipo> "<" "=" <tipo>
| <tipo> ">" <tipo>
| <tipo> ">" "=" <tipo>
| <tipo> "and" <tipo>
| <tipo> "or" <tipo>
| <tipo> "not" <tipo>