#### UNIVERSIDAD DE SAN CARLOS DE GUATEMALA FACULTAD DE INGENIERÍA ORG DE LENGUAJES Y COMPILADORES "A"

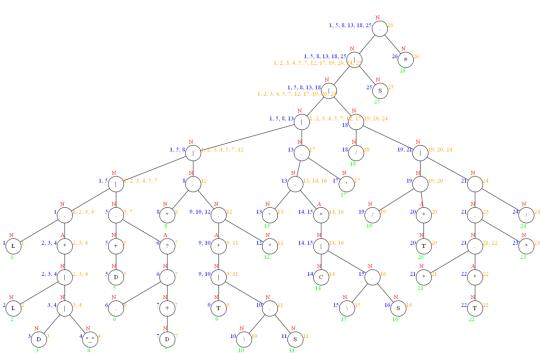


Nombre: Edwin Alfredo López Gómez

Carné: 201314007 Fecha: 22/05/2020

# Árbol:

#### Arbol -- ER



## Tabla de Siguientes:

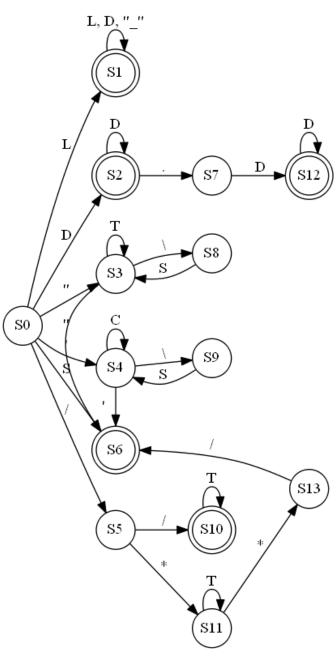
Tabla de Siguientes ER								
#	Simbolo	Siguientes						
1	L	2, 3, 4, 26						
2	L	2, 3, 4, 26						
3	D	2, 3, 4, 26						
4	"_"	2, 3, 4, 26						
5	D	5, 6, 26						
6	\.	7						
7	D	7, 26						
8	\"	9, 10, 12						
9	Т	9, 10, 12						
10	\	11						
11	S	9, 10, 12						
12	\"	26						
13	7,	14, 15, 17						
14	С	14, 15, 17						
15	\	16						
16	S	14, 15, 17						
17		26						
18	/	19, 21						
19	/	20, 26						
20	T	20, 26						
21	\*	22, 23						
22	Т	22, 23						
23	\*	24						
24	/	26						
25	S	26						
26	#							

### Tabla de Transiciones:

Tabla de Transiciones ER													
Estados		Terminales											
Estados	L	D	"_"	\.	\"	Т	\	S	/,	С	/	\#:	
S0 = {1, 5, 8, 13, 18, 25}	S1	S2			S3			S6	S4		S5		
* S1 = {2, 3, 4, 26}		S1	S1										
* S2 = {5, 6, 26}		S2		<b>S</b> 7									
S3 = {9, 10, 12}					S6	S3	S8						
S4 = {14, 15, 17}							S9		S6	S4			
S5 = {19, 21}											S10	S11	
* S6 = {26}													
S7 = {7}		S12											
S8 = {11}								S3					
S9 = {16}								S4					
* S10 = {20, 26}						S10							
S11 = {22, 23}						S11						S13	
* S12 = {7, 26}		S12											
S13 = {24}											S6		

### Autómata:

## Automata -- ER



#### Gramatica Analisis Sintactico

```
S
 : CLAIMP EOF
CLAIMP
 : CLAIMPP
CLAIMPP
  : CLAIMPP SINCLAIMP
 | SINCLAIMP
SINCLAIMP
  : tkRCla tkIde tkSLlaAbr MMFV tkSLlaCie
  | tkRImp ESPIMP tkSPunCom
 error
ESPIMP
  : ESPIMP tkSPun tklde
 | tklde
// Funciones, Metodos, Variables Globales
MMFV
 : MMFVP
MMFVP
 : MMFVP SINMMFV
 | SINMMFV
```

```
SINMMFV
  : tkRVoi tkRMai tkSParAbr tkSParCie tkSLlaAbr INS tkSLlaCie
  | tkRVoi tkIde tkSParAbr PAR tkSParCie tkSLlaAbr INS tkSLlaCie
  | TIP tklde tkSParAbr PAR tkSParCie tkSLlaAbr INS tkSLlaCie
  | TIP DECVARMUL tkSPunCom
  error
INS
  : INSP
INSP
  : INSP SININS
  | SININS
SININS
  : TIP DECVARMUL tkSPunCom
  | tklde tkSlgu EXP tkSPunCom
  | tkRSis tkSPun tkROut tkSPun PRI tkSParAbr EXP tkSParCie tkSPunCom
  | tkRlf tkSParAbr EXP tkSParCie tkSLlaAbr INS tkSLlaCie ELS
  | tkRSwi tkSParAbr EXP tkSParCie tkSLlaAbr CAS tkSLlaCie
  I tkRFor tkSParAbr DECASI tkSPunCom EXP tkSPunCom ASIINC tkSParCie tkSLlaAbr INS
tkSLlaCie
  | tkRWhi tkSParAbr EXP tkSParCie tkSLlaAbr INS tkSLlaCie
  | tkRDo tkSLlaAbr INS tkSLlaCie tkRWhi tkSParAbr EXP tkSParCie tkSPunCom
  | tkRBre tkSPunCom
  | tkRCon tkSPunCom
  | tkRRet tkSPunCom
  | tkRRet EXP tkSPunCom
  error
// asignacion
DECASI
  : TIP tklde tkSlgu EXP
```

```
| tklde tkSlgu EXP
ASIINC
  : tklde tkSlgu EXP
  | EXP
// else if y else
ELS
  : tkREIs SINELS
SINELS
  : tkRlf tkSParAbr EXP tkSParCie tkSLlaAbr INS tkSLlaCie ELS
  | tkSLlaAbr INS tkSLlaCie
// case
CAS
  : CASP
  CASP
  : tkRCas EXP tkSDosPun INS CAS
  | tkRDef tkSDosPun INS
// print
PRI
  : tkRPri
  | tkRPriLn
```

```
DECVARMUL
  : SINVAR
  | DECVARMUL tkSCom SINVAR
SINVAR
  : tklde
  | tklde tkSlgu EXP
EXP
  : EXP tkSAnd EXP
       | EXP tkSOr EXP
  | EXP tkSDlgu EXP
  | EXP tkSMay EXP
  | EXP tkSMayIgu EXP
  | EXP tkSMen EXP
  | EXP tkSMenIgu EXP
  | EXP tkSDif EXP
  | EXP tkSMas EXP
      | EXP tkSGui EXP
      | EXP tkSPor EXP
  | EXP tkSBarInc EXP
      | EXP tkSPot EXP
      | EXP tkSMod EXP
      | tkSGui EXP %prec NEG
  | tkSAdm EXP %prec NEG
  | VAL tkSInc %prec NEG
  | VAL tkSDec %prec NEG
  | VAL
VAL
  : tkNum
```

```
| tkDec
  | tkCad
  | tkCar
  | tkRTru
  | tkRFal
  | tklde
  | tklde tkSParAbr tkSParCie
  | tklde tkSParAbr LISEXP tkSParCie
  | tkSParAbr EXP tkSParCie
LISEXP
  : EXP
  | LISEXP tkSCom EXP
// Declaracion Multiple de Parametros
PAR
  : LISPAR
LISPAR
  : TIP tklde
  | LISPAR tkSCom TIP tkIde
// terminales
TIP
  : tkRInt
  | tkRDou
  | tkRCha
  | tkRStr
  | tkRBoo
```