

$$3.\Sigma=\{N,L,+,-,*,/, \%, ' ', ', ', ', ', ', ', '(', ')', '[,]', '\{, \}'\}$$

4.F={S0,S1,S2,S3,S5,S6,S7}

5.Función de transición:

| | | | | |
|--------------------------------|------------------------------|------------------------------|-------------------------------|-------------------------------|
| $\delta(S0,L)=S1$ | $\delta(S1,L)=S1$ | $\delta(S1,N)=S1$ | $\delta(S1,\backslash n)=S0$ | $\delta(S1,\backslash s)=S0$ |
| $\delta(S0,N)=S3$ | $\delta(S3,N)=S3$ | $\delta(S3, '.)=S4$ | $\delta(S4,N)=S5$ | $\delta(S5,N)=S5$ |
| $\delta(S5,\backslash n)=S0$ | $\delta(S5,\backslash s)=S0$ | $\delta(S3,\backslash s)=S0$ | $\delta(S3,\backslash n)=S0$ | $\delta(S0, '+')=S2$ |
| $\delta(S0, '-')=S2$ | $\delta(S0, '*')=S2$ | $\delta(S0, '/')=S2$ | $\delta(S0, '%')=S2$ | $\delta(S2, '+')=S2$ |
| $\delta(S2, '-')=S2$ | $\delta(S2, '*')=S2$ | $\delta(S2, '/')=S2$ | $\delta(S2, '%')=S2$ | $\delta(S2, \backslash n)=S0$ |
| $\delta(S2, \backslash s)=S0$ | $\delta(S0, '.')=S6$ | $\delta(S0, ',')=S6$ | $\delta(S0, ';')=S6$ | $\delta(S0, ':')=S6$ |
| $\delta(S6, '.')=S6$ | $\delta(S6, ',')=S6$ | $\delta(S6, ';')=S6$ | $\delta(S6, ':')=S6$ | $\delta(S6, \backslash n)=S0$ |
| $\delta(S6, \backslash s-)=S0$ | $\delta(S0, '(')=S7$ | $\delta(S0, ')')=S7$ | $\delta(S0, '[')=S7$ | $\delta(S0, ']=S7$ |
| $\delta(S0, '{')=S7$ | $\delta(S0, '}=S7$ | $\delta(S7, '(')=S7$ | $\delta(S7, ')')=S7$ | $\delta(S7, '[')=S7$ |
| $\delta(S7, ']=S7$ | $\delta(S7, '{')=S7$ | $\delta(S7, '}=S7$ | $\delta(S7, \backslash n)=S0$ | $\delta(S7, \backslash s)=S0$ |

Optimizarlo:

| | | | | |
|-------------------|-------------------|---------------------|-------------------|-------------------|
| $\delta(S0,N)=S3$ | $\delta(S3,N)=S3$ | $\delta(S3, '.)=S4$ | $\delta(S4,N)=S5$ | $\delta(S5,N)=S5$ |
|-------------------|-------------------|---------------------|-------------------|-------------------|

Color rojo son estados de aceptación.

$\delta(S4,N)=S5 \rightarrow \delta(S0,N)=S3$

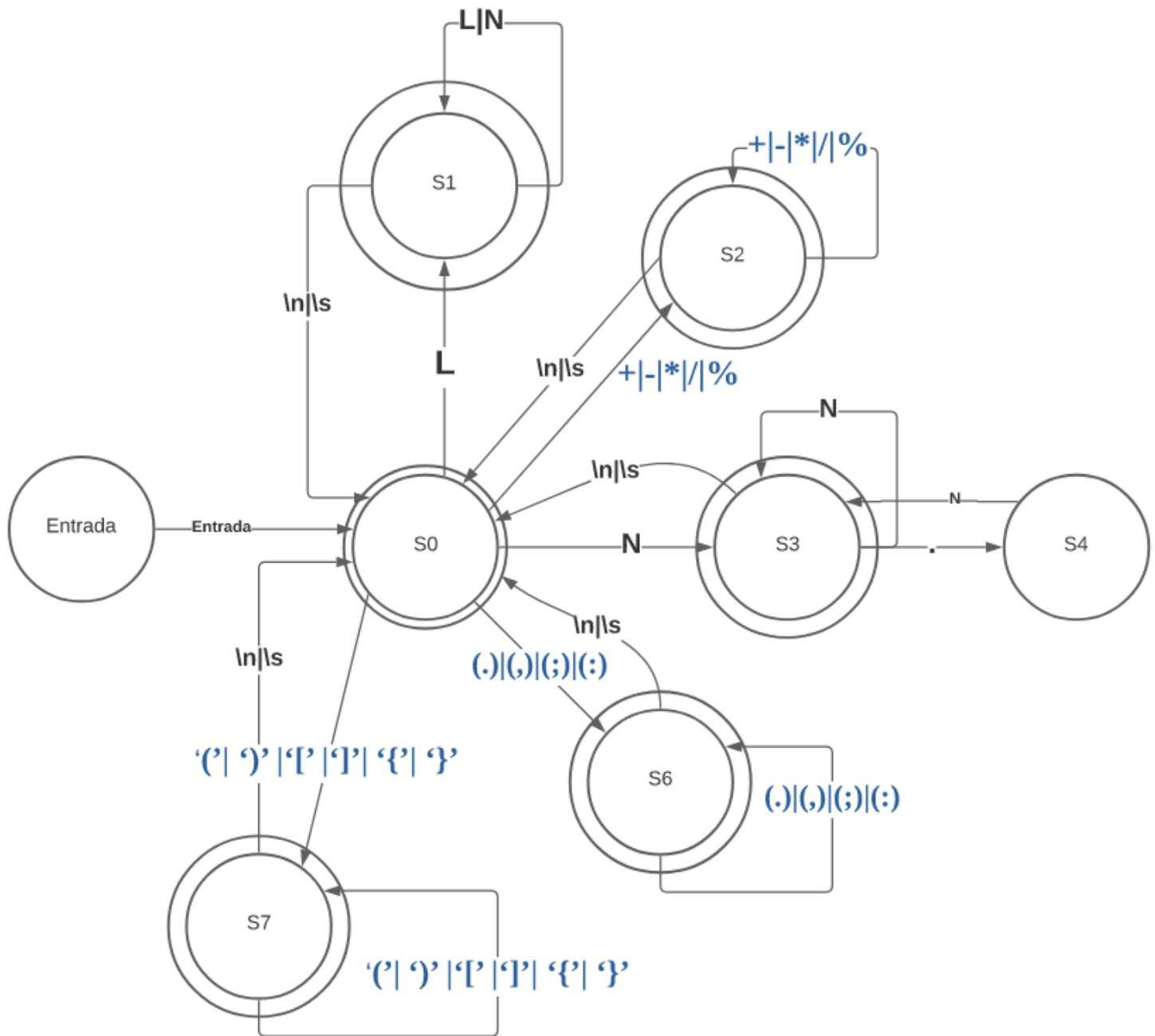
$\delta(S3,N)=S3 \rightarrow \delta(S5,N)=S5$

por lo tanto:

$\delta(S4,N)=S3 \rightarrow$ nueva modificación

N=números (0-9)

L=letras(a-z)(A-Z)



| | | | | |
|---------------------------------|-------------------------------------|-------------------------------------|----------------------------------|---------------------------------|
| $\delta(S0, L) = S1$ | $\delta(S1, L) = S1$ | $\delta(S1, N) = S1$ | $\delta(S1, \backslash n) = S0$ | $\delta(S1, \backslash s) = S0$ |
| $\delta(S0, N) = S3$ | $\delta(S3, N) = S3$ | $\delta(S3, \backslash \cdot) = S4$ | $\delta(S4, N) = S3$ | |
| $\delta(S3, \backslash s) = S0$ | $\delta(S3, \backslash n) = S0$ | | | $\delta(S0, \backslash +) = S2$ |
| $\delta(S0, \backslash -) = S2$ | $\delta(S0, \backslash *) = S2$ | $\delta(S0, \backslash /) = S2$ | $\delta(S0, \backslash \%) = S2$ | $\delta(S2, \backslash +) = S2$ |
| $\delta(S2, \backslash -) = S2$ | $\delta(S2, \backslash *) = S2$ | $\delta(S2, \backslash /) = S2$ | $\delta(S2, \backslash \%) = S2$ | $\delta(S2, \backslash n) = S0$ |
| $\delta(S2, \backslash s) = S0$ | $\delta(S0, \backslash \cdot) = S6$ | $\delta(S0, \backslash ,) = S6$ | $\delta(S0, \backslash ;) = S6$ | $\delta(S0, \backslash :) = S6$ |

| | | | | |
|-------------------------------|-----------------------------|-----------------------------|-------------------------------|-------------------------------|
| $\delta(S6, \text{'.'})=S6$ | $\delta(S6, \text{','})=S6$ | $\delta(S6, \text{';'})=S6$ | $\delta(S6, \text{'.'})=S6$ | $\delta(S6, \backslash n)=S0$ |
| $\delta(S6, \backslash s)=S0$ | $\delta(S0, \text{'('})=S7$ | $\delta(S0, \text{'')})=S7$ | $\delta(S0, \text{'['})=S7$ | $\delta(S0, \text{'']})=S7$ |
| $\delta(S0, \text{'{'})=S7$ | $\delta(S0, \text{'}}')=S7$ | $\delta(S7, \text{'('})=S7$ | $\delta(S7, \text{'')})=S7$ | $\delta(S7, \text{'['})=S7$ |
| $\delta(S7, \text{'']})=S7$ | $\delta(S7, \text{'{'})=S7$ | $\delta(S7, \text{'}}')=S7$ | $\delta(S7, \backslash n)=S0$ | $\delta(S7, \backslash s)=S0$ |