

Gramatica 6a

Construir el autómata LR(1)

Estado	Elementos	Transiciones
q0	$S' \rightarrow \bullet S, \quad , \quad \$$ $S \rightarrow \bullet SS+, \quad , \quad \$/a$ $S \rightarrow \bullet SS^*, \quad , \quad \$/a$	$\overset{3/452}{1/2} \text{goto}(q0, S) = q1$ $\text{goto}(q0, a) = q2$
q1	$S' \rightarrow S \bullet, \quad , \quad \$$ $S \rightarrow S \bullet S+, \quad , \quad \$/a$	$\text{goto}(q1, S) = q3$ $\text{goto}(q1, a) = q4$
q2	$S \rightarrow a \bullet, \quad , \quad \$/a$ $S \rightarrow \bullet SS+, \quad , \quad +/^*$ $S \rightarrow \bullet SS^*, \quad , \quad +/^*$ $S \rightarrow \bullet a, \quad , \quad +/^*$	$\text{goto}(\quad, \quad) = \quad$ $\text{goto}(q2, a) = q2$ $\text{goto}(q2, +) = q3$ $\text{goto}(q2, *) = q4$ $\text{goto}(q2, \$) = q5$
q3	$S \rightarrow SS \bullet+, \quad , \quad +/^*$ $S \rightarrow SS \bullet^*, \quad , \quad +/^*$	$\text{goto}(q3, a) = q4$ $\text{goto}(q3, S) = q5$
q4	$S \rightarrow S \bullet S+, \quad , \quad +/^*$ $S \rightarrow S \bullet S^*, \quad , \quad +/^*$ $S \rightarrow \bullet SS+, \quad , \quad +/^*$ $S \rightarrow \bullet SS^*, \quad , \quad +/^*$	$\text{goto}(q4, +) = q6$ $\text{goto}(q4, *) = q7$ $\text{goto}(q4, a) = q2$ $\text{goto}(q4, S) = q1$

[illegible]

Construir la tabla LR(1)

	a	+	*	\$	5
0	d2 2/30	→	→	→	1 1/30
1	d4 2/30	→	→	ptacion 10/30	3 1/30
2	r3 2/30	→	→	r3 2/30	→
3	d4 2/30	d6 2/30	d7 2/30	→	5 1/30
4	→	r3 2/30	r3 2/30	→	→

Quitar Paso

3	d4 2/30	d6 2/30	d7 2/30	→	5 1/30
4	→	r3 2/30	r3 2/30	→	→
5	d4 2/30	d8 2/30	d7 2/30	→	5 1/30
6	r1 2/30	→	→	r1 2/30	→
7	r2 2/30	→	→	r2 2/30	→
8	→	r1 2/30	r1 2/30	→	→
9	→	r2 2/30	r2 2/30	→	→

Quitar Paso

Realizar el análisis LR para la cadena aa+a*

Quitar Paso

Pila	Entrada	Acción
\$0	aa+a*\$	desp 2

Quitar Paso

\$02	a+a*\$	red S -> a
\$01	a+a*\$	desp 4

Quitar Paso

\$014	+a*\$	red S->a
\$013	+a*\$	desp 6

Quitar Paso

\$0136	a*\$	red S -> SS+
\$01	a*\$	desp 4

\$014	*\$	red S->a	Quitar Paso
\$013	*\$	desp 7	Quitar Paso
\$0137	\$	red S -> SS*	Quitar Paso
\$01	\$	aceptar	Quitar Paso

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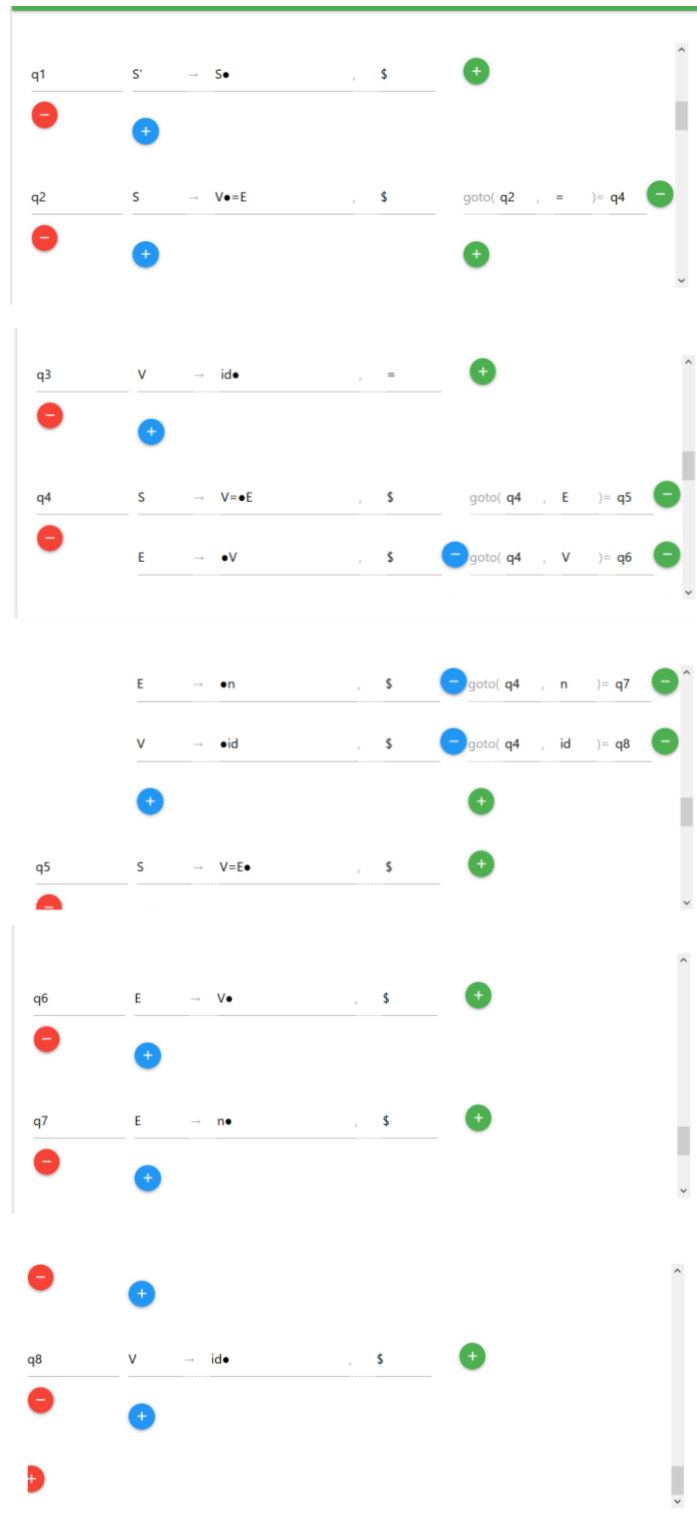
Generar la tabla LALR

	a	+	*	\$	S
0	d2 2/30	→	→	→	1 1/30
1	d4 2/30	→	→	ptacion 10/30	3 1/30
2	r3 2/30	r3 2/30	r3 2/30	r3 2/30	→
3	d2 2/30	d4 2/30	d5 2/30	→	5 1/30
4	r1	r1	r1	r1	→
5	r2 2/30	r2 2/30	r2 2/30	r2 2/30	→

Gramatica 6b

Construir el autómata LR(1)

Estado	Elementos	Transiciones
q0	S' → •S	2/452 1/20 goto(q0 , S)= q1
2	S → •V=E	2/101/10 goto(q0 , V)= q2
S	S → •id	goto(q0 , id)= q3



Construir la tabla LR(1)

	id	=	n	\$	S	E	V
0	→	→	d3 2/30	→	1 1/30	→	2 1/30
1	→	→	→	rtacion 10/30	→	→	→
2	d4 2/30	→	→	→	→	→	→
3	r4 2/30	→	→	→	→	→	→

4	→	d7 2/30	d8 2/30	→	→	5 1/30	6 1/30
5	→	→	→	→	r1 2/30	→	→
6	→	→	→	→	r2 2/30	→	→
7	→	→	→	→	r3 2/30	→	→
8	→	→	→	→	r4 2/30	→	→

Realizar el análisis LR de la cadena x = 6

Pila	Entrada	Acción
\$0	x=6\$	desp 3
2/40	4/40	6/40

\$03	=6\$	red V -> id
\$02	=6\$	desp 3

\$024	6\$	desp 7
\$0247	\$	red E -> n

\$0245	\$	red S -> V=E	—
\$01	\$	aceptacion	—

Gramatica 6c

Construir el autómata LR(1)				
Estado	Elementos	Transiciones		
q0	S' → •S	,	\$	2/452 1/20 goto(q0 , S)= q1 —
	S → •A	,	\$	2/101/10 goto(q0 , A)= q2 —
	S → •xb	,	\$	goto(q0 , x)= q3 —
	A → •aAb	,	\$	goto(q0 , a)= q4 —
	A → •B	,	\$	goto(q0 , B)= q5 —
	B → •x	,	\$	+
q1	S' → S•	,	\$	+
q2	S → A•	,	\$	+
q3	S → x•b	,	\$	goto(q3 , b)= q6 —
	B → x•	,	\$	— +
q4	A → a•Ab	,	\$	goto(q4 , A)= q7 —



+

q12

A

→

aA•b

,

b

goto(q12 , b)= q13

-

-

+

+

q13

A

→

aAb•

,

b

+

-

+

Construir la tabla L(1)						
	a	b	x	\$	S	B
0	→d4 3/30	→	d3 2/30	→	1 1/30	2 1/30
1	→	→	→	rtacion 10/30	→	→
2	→	→	→	r1 2/30	→	→
3	→	d6 3/30	→	r5 3/30	→	→
4	d8 2/30	→	d10 3/30	→	12 2/30	9 1/30
5	→	→	→	r5 2/30	→	→
6	→	→	→	r2 2/30	→	→
7	→	d11 3/30	→	→	→	→
8	d8 2/30	→	d10 3/30	→	12 2/30	9 1/30
9	→	r4 2/30	→	→	→	→
9	→	r4 2/30	→	→	→	→
10	→	r5 2/30	→	→	→	→
11	→	→	→	r3 2/30	→	→
12	→	d13 3/30	→	→	→	→
13	→	r3 2/30	→	→	→	→

Tabla de análisis LALR						
	a	b	x	\$	S	A B
0	d4 2/30	→	d3 2/30	→	1 1/30	2 1/30 5 1/30
1	→	→	→	rtacion 10/30	→	→
2	→	→	→	r1 2/30	→	→
3	→	d6 2/30	→	r5 2/30	→	→
4	d4 2/30	→	d8 2/30	→	→	7 1/30 5 1/30
5	→	r4 2/30	→	r5 2/30	→	→
6	→	→	→	r2 2/30	→	→
7	→	d9 2/30	→	→	→	→
8	→	r5 2/30	→	→	→	→
9	→	r3 2/30	→	r3 2/30	→	→
10	→	d9 2/30	→	→	→	→
Análisis sintáctico LR para la cadena axbb						
Pila	Entrada	Acción				
\$0	axbb\$	desp 4	2/40	5/40	6/40	
\$04	xbbs	desp 8				
\$048	bb\$	red B -> x				
\$045	bb\$	red A->B				
\$047	bb\$	desp 9				

\$0479	b\$	red A-> aAb	
\$02	b\$	error	

Gramatica 6d

Construir el autómata LR(1)				
Estado	Elementos	Transiciones		
q0	T' → •T	,	\$	2/452 1/20 goto(q0 , T)= q1
	T → •TF	,	\$	2/101/10 goto(q0 , F)= q2
	T → •F	,	\$	goto(q0 , a)= q3
	F → •F*	,	\$/*	
	F → •a	,	\$/*	
q1	T' → T•	,	\$	goto(q1 , F)= q4
	T → T•F	,	\$	goto(q1 , a)= q3
	F → •F*	,	\$/*	
	F → •a	,	\$/*	
q2	T → F•	,	\$	goto(q2 , *)= q5
	F → F•*	,	\$/*	
q3	F → a•	,	\$/*	

q4 T → TF• \$ goto(q4 , *)= q5

q5 F → F• \$/*

Construir la tabla LR(1)

	a	*	\$	T	F
0	d3 2/30	→	→	1 1/30	2 1/30
1	d3 2/30	→	xtacion 10/30	→	4 1/30
2	→	d5 2/30	r2 2/30	→	→
3	→	r4 2/30	r4 2/30	→	→
4	→	d5 2/30	r1 2/30	→	→
5	→	r3 2/30	r3 2/30	→	→

Realizar el análisis LR de a**aa

Pila	Entrada	Acción
\$0	a**aa\$	desp 3
2/40	6/40	6/40

\$03	**aa\$	red F->a
\$02	**aa\$	desp 5

\$025	*aa\$	red F->F*
\$02	*aa\$	desp 5

