

Example we did in class on LR Parsing. Built LR(1) Parse table and then traced a string on the stack 10/24/24

JFLAP : <untitled1>

File Input Test Convert Help

Editor Build SLR(1) Parse

Do Selected Do Step Do All Next Parse

Table Text Size

Parse table complete. Press "parse" to use it.

	FIRST	FOLLOW
B	{ b, λ }	{ c }
S	{ a, b }	{ \$, b, c }

$S' \rightarrow S$
 $S \rightarrow aSBc$
 $S \rightarrow b$
 $B \rightarrow bB$
 $B \rightarrow \lambda$

q_0 : $S' \rightarrow S$, $S \rightarrow aSBc$, $S \rightarrow b$
 q_1 : $S' \rightarrow S$
 q_2 : $S \rightarrow aSBc$, $S \rightarrow aSBc$, $S \rightarrow b$
 q_3 : $S \rightarrow b$
 q_4 : $B \rightarrow bB$, $B \rightarrow bB$, $S \rightarrow aSBc$
 q_5 : $S \rightarrow aSBc$
 q_6 : $B \rightarrow bB$, $B \rightarrow bB$
 q_7 : $S \rightarrow aSBc$
 q_8 : $B \rightarrow bB$

	a	b	c	\$	B	S
0	s2	s3				1
1				acc		
2	s2	s3				4
3		r2	r2	r2		
4		s6	r4		5	
5			s7			
6		s6	r4		8	
7		r1	r1	r1		
8			r3			

Table Text Size

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Editor Build SLR(1) Parse SLR(1) Parsing

Table Text Size

	a	b	c	\$	B	S
0	s2	s3				1
1				acc		
2	s2	s3				4
3		r2	r2	r2		
4		s6	r4		5	
5			s7			
6		s6	r4		8	
7		r1	r1	r1		
8			r3			

Start Step Noninverted Tree

Input: abbc

Input Remaining: \$

Stack: S0

Input Field Text Size (For optimization, move one of the window size adjustors around...)

Table Text Size

LHS		RHS
S'	→	S
S	→	aSBc
S	→	b
B	→	bB
B	→	λ

String accepted

a b b c \$
 ↑ ↑ ↑ ↑ ↑

	3							
	b							
2	2	4	4	4	4	4	4	
a	a	S	S	S	S	S	S	
0	0	2	2	2	2	2	2	1
st	sh	2	sh	r4	r3	sh	rl	acc
a	b							

✓ works