

# LR(0) & SLR(1) Parsing

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13:02

2. Parse input string "baab" using following resources:

- 0)  $S' \rightarrow S$
- 1)  $S \rightarrow XX$
- 2)  $X \rightarrow aX$
- 3)  $X \rightarrow b$

State on top of stack	Action			Goto	
	a	b	\$	S	X
0	s3	s4		1	2
1			acc		
2	s6	s7			5
3	s3	s4			8
4	r3	r3			
5			r1		
6	s6	s7			9
7			r3		
8	r2	r2			
9			r2		

Stack	Input	Action
0	baab\$	-
0b4	aab\$	Shift 4
0X2 (popped top of the stack until b)	aab\$	Reduce by $X \rightarrow b$
0X2a6	ab\$	Shift 6
0X2a6a6	b\$	Shift 6
0X2a6a6b7	\$	Shift 7
0X2a6a6X9	\$	Reduce by $X \rightarrow b$
0X2a6X9	\$	Reduce by $X \rightarrow aX$
0X2X5	\$	Reduce by $X \rightarrow aX$
0S1	\$	Reduce by $S \rightarrow XX$
		Accept !

→ stays the same with reduce

State 0  
Input X  $\Rightarrow$  2