

LR(0) items

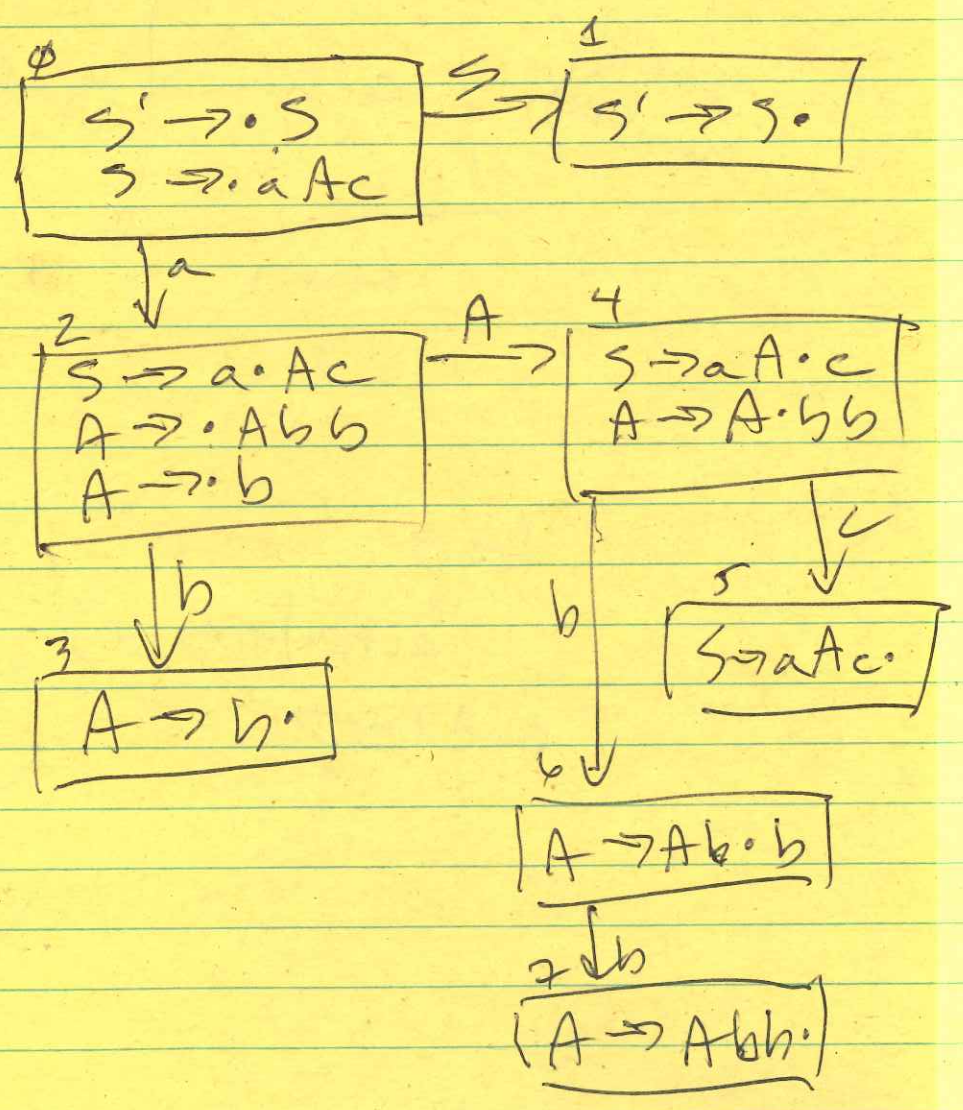
$$A \rightarrow X Y Z \Rightarrow \begin{aligned} &A \rightarrow \cdot X Y Z \\ &A \rightarrow X \cdot Y Z \\ &A \rightarrow X Y \cdot Z \\ &A \rightarrow X Y Z \cdot \end{aligned}$$

$$A \rightarrow \epsilon \Rightarrow A \rightarrow \epsilon \cdot$$

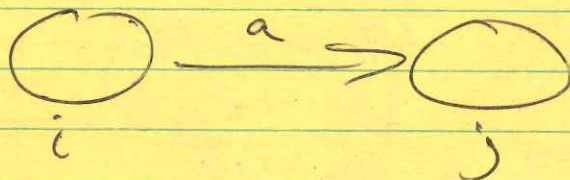
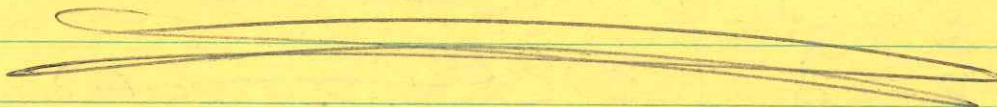
~~LR~~

augment grammar $S' \rightarrow S$

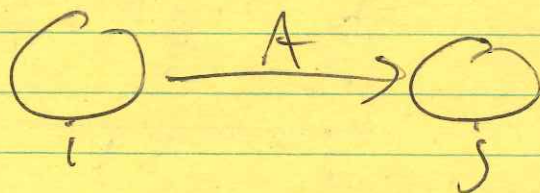
- 0 $S' \rightarrow S$
- 1 $S \rightarrow a A c$
- 2 $A \rightarrow A b b$
- 3 $A \rightarrow b$



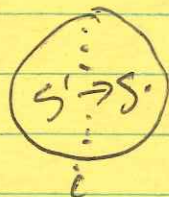
	a	b	c	\$	→	→	A
0	s2					g1	
1				acc			
2		s3					g4
3	r3	r3	r3	r3			
4		s6	s5				
5	r1	r1	r1	r1			
6		s7					
7	r2	r2	r2	r2			



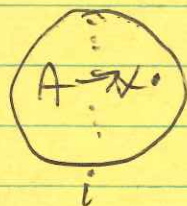
$action[i, a] = shift\ j$



$goto[i, A] = goto\ j$

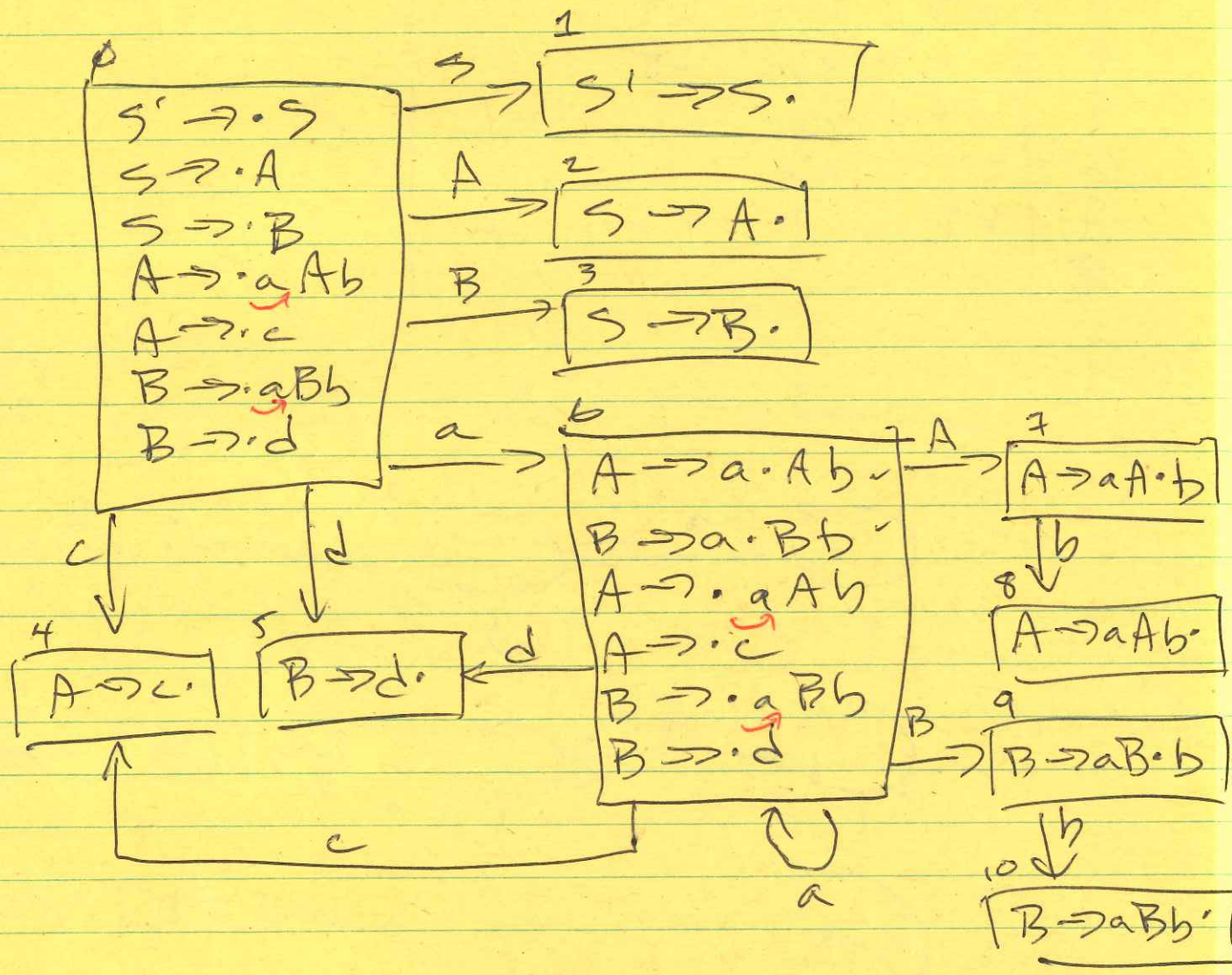


$action[i, \$] = accept$

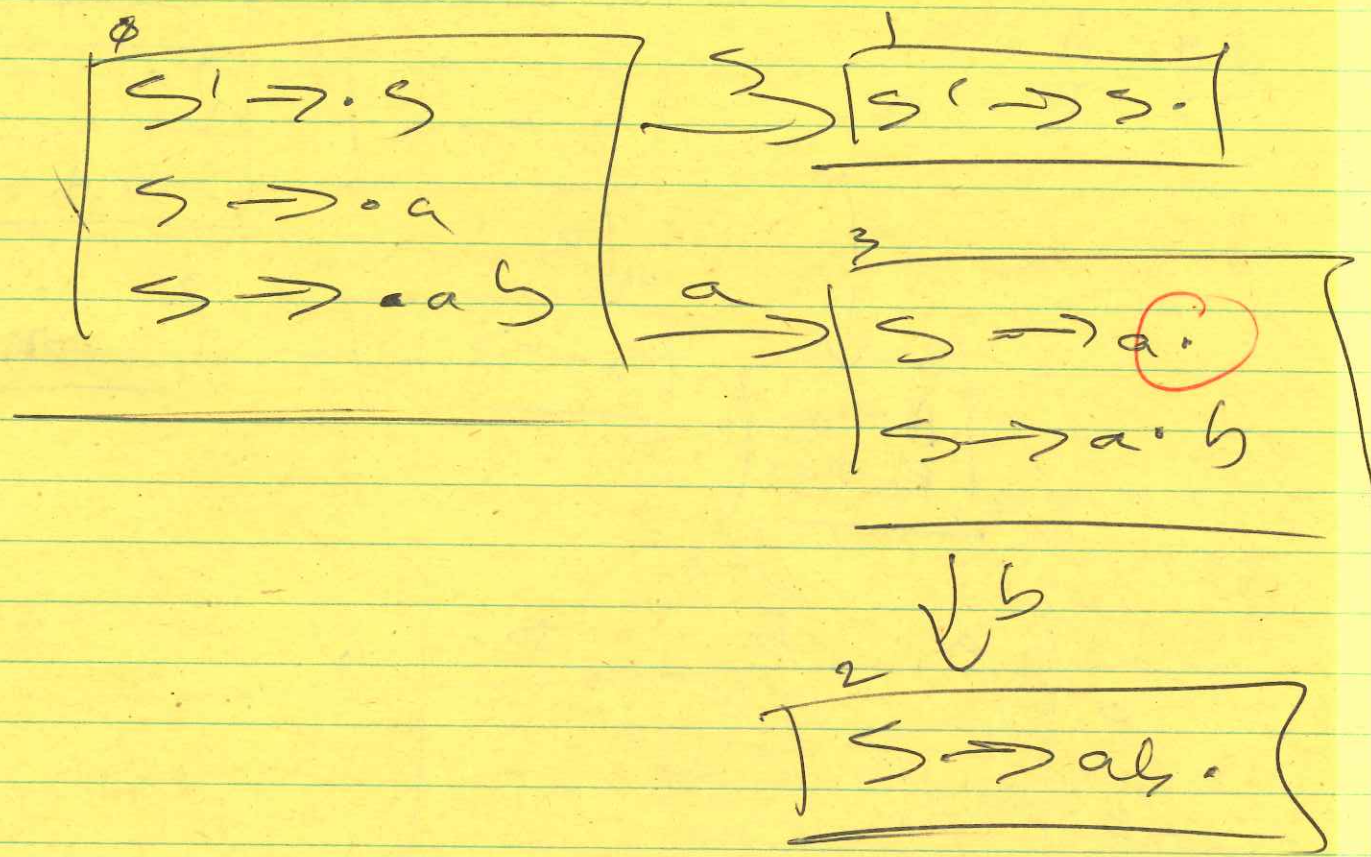


$action[i, b] = reduce\ A \rightarrow x$
for $b \in terminals \cup \{\$\}$

- 0 $S' \rightarrow S$
- 1 $S \rightarrow A$
- 2 $S \rightarrow B$
- 3 $A \rightarrow aAb$
- 4 $A \rightarrow c$
- 5 $B \rightarrow aBb$
- 6 $B \rightarrow d$



- 0 $S' \rightarrow S$
- 1 $S \rightarrow a$
- 2 $S \rightarrow ab$

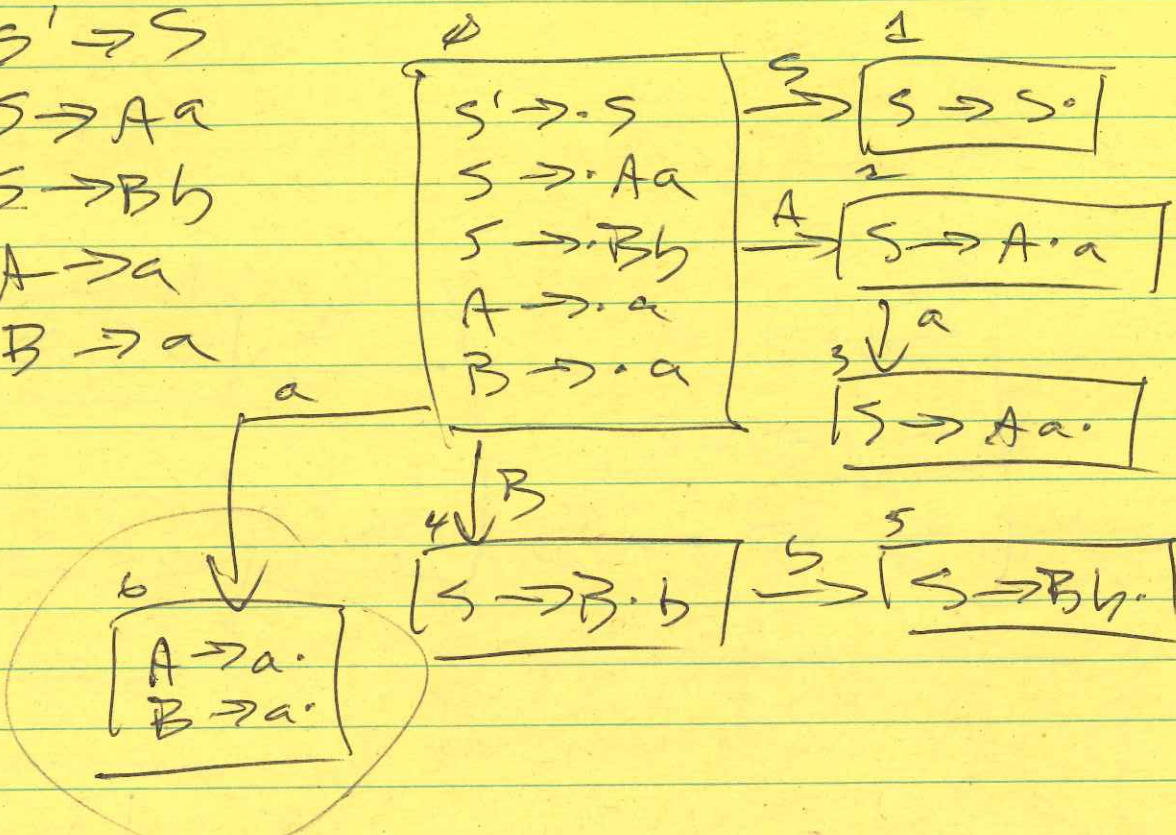


	a	b	\$	S'	S
0	r3				r1
1			acc		
2	r2	r2	r2		
3	r1	r2/r1	r1		

shift/reduce conflict

(6)

- 0 $S' \rightarrow S$
- 1 $S \rightarrow Aa$
- 2 $S \rightarrow Bb$
- 3 $A \rightarrow a$
- 4 $B \rightarrow a$



	a	b	\$	S'	S	A	B
0							
1		.	.				
2		.	.				
3			.				
4		.	.				
5			.				
6	r3/r4	r3/r4	r3/r4				

reduce
reduce
conflict