

MANOLACHE ANDREI

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344

SET 4

2) $G:$

$$\begin{array}{l} S \rightarrow Aa|Ac \\ A \rightarrow AB|a \\ B \rightarrow a \end{array}$$

← Numerotăm prod.

Extindem $s' \rightarrow S$

Construim mulțimile cononice LR(1):

~~$i_0 = s' \rightarrow \cdot S; \# \rightarrow i_1$~~

~~$S \rightarrow \cdot Aa; \# \rightarrow i_1$~~

~~$S \rightarrow \cdot Ac; \# \rightarrow i_2$~~

~~$A \rightarrow \cdot AB; a \rightarrow i_3$~~

~~$A \rightarrow \cdot a$~~

~~$i_0 = s' \rightarrow \cdot S; \# \rightarrow i_1$~~

~~$S \rightarrow \cdot Aa; \# \rightarrow i_2$~~

~~$A \rightarrow \cdot AB; a$~~

~~$A \rightarrow \cdot a$~~

~~$i_0 = s' \rightarrow \cdot S; \# \rightarrow i_1$~~

~~$S \rightarrow \cdot Aa; \# \rightarrow i_2$~~

~~$S \rightarrow \cdot Ac; \# \rightarrow i_3$~~

~~$A \rightarrow \cdot AB; a|c|a \rightarrow i_4$~~

~~$A \rightarrow \cdot AB; a$~~

$A \rightarrow \cdot a; a|c|a \rightarrow i_5$

$$i_1 = S' \rightarrow S. \#$$

$$i_2 = S \rightarrow A. h; \#$$

$$i_3 = S \rightarrow A. c; \#$$

$$i_4 = A \rightarrow A.B; h/c/a \rightarrow i_6$$

$$B \rightarrow .a; h/c/a \rightarrow i_7$$

$$i_5 = A \rightarrow a.; h/c/a$$

$$i_6 = A \rightarrow AB.; h/c/a$$

$$i_7 = B \rightarrow a.; h/c/a$$

Table (R(1):

	a	h	c	#	S	A	B
0					1	2	
1							
2							
3							
4							
5							
6							
7							

$$\begin{aligned}
J_0 = \quad & S' \rightarrow \cdot S; \# \rightarrow J_1 \\
& S \rightarrow \cdot A h; \# \rightarrow J_2 \\
& S \rightarrow \cdot A c; \# \rightarrow J_2 \\
& A \rightarrow \cdot A B; a/h/c. \rightarrow J_2 \\
& A \rightarrow \cdot a; a/h/c \rightarrow J_3
\end{aligned}$$

$$J_1 = \quad S' \rightarrow S \cdot; \#$$

$$\begin{aligned}
J_2 = \quad & S \rightarrow A \cdot h; \# \rightarrow J_4 \\
& S \rightarrow A \cdot c; \# \rightarrow J_5 \\
& A \rightarrow A \cdot B; a/h/c \rightarrow J_6 \\
& B \rightarrow \cdot a; a/h/c \rightarrow J_7
\end{aligned}$$

$$J_3 = \quad A \rightarrow a \cdot; a/h/c$$

$$J_4 = \quad S \rightarrow A h \cdot; \#$$

$$J_5 = \quad S \rightarrow A c \cdot; \#$$

$$J_6 = \quad A \rightarrow A B \cdot; a/h/c.$$

$$J_7 = \quad B \rightarrow a \cdot; a/h/c.$$

Tabela LR(1):

	a	b	c	#	S	A	B
0	SHIFT ₃				1	2	
1				accept			
2	SHIFT ₇	SHIFT ₄	SHIFT ₅				6
3	REDUCE ₄	REDUCE ₄	REDUCE ₄				
4				REDUCE ₁			
5				REDUCE ₂			
6	REDUCE ₃	REDUCE ₃	REDUCE ₃				
7	REDUCE ₅	REDUCE ₅	REDUCE ₅				

In rest, view error.

Tabela nu are intron multiple \Leftrightarrow este LR(1)

$(0, aac, \lambda) \rightarrow (0a3; aac; \lambda) \rightarrow$
 $(0A2; aac; 4) \rightarrow (0A2a7; ac; 4) \rightarrow$
 $(0A2B6; ac; 54) \rightarrow (0A2; ac; 354) \rightarrow$
 $(0A2a7; c; 354) \rightarrow (0A2B6; c; 5354) \rightarrow$
 $(0A2; c; 35354) \rightarrow (0A2c5; \# 35354) \rightarrow$
 $(0S1; \# 235354) \rightarrow \{ \text{accept} \}$

$$3) M = \{ (a^{m+n} x^{2m+2} y^{3n}) \mid m, n \geq 0 \}$$

1) Adăugăm $S' \rightarrow S$

$$S' \rightarrow S$$

$$S \rightarrow A \cup B$$

$$A \rightarrow aA \mid \lambda$$

$$B \rightarrow b$$

Neterminali anulabili: A

$$I_0: S' \rightarrow \cdot S, 0$$

$$S \rightarrow \cdot A \cup B, 0 \text{ predicție}$$

$$A \rightarrow \cdot aA, 0 \text{ predicție}$$

$$A \rightarrow \cdot, 0 \text{ completare}$$

$$I_1: \text{caracterul curent } w_1 = 'a'$$

$$A \rightarrow a \cdot A, 0$$

$$A \rightarrow \cdot aA, 1$$

$$A \rightarrow \cdot, 1 \text{ completare}$$

$$A \rightarrow aA \cdot, 0 \text{ completare}$$

$$S \rightarrow A \cdot \cup B, 0$$

$$I_2: \text{caracterul citit } a$$

$$A \rightarrow a \cdot A, 1$$

$$A \rightarrow \cdot aA, 2$$

$$A \rightarrow \cdot, 2$$

$$A \rightarrow aA \cdot, 1$$

$$A \rightarrow aA \cdot, 0$$

$$S \rightarrow A \cdot \cup B, 0$$

$$I_3: \text{caracterul citit } b$$

$$S \rightarrow A \cup \cdot B, 0$$

$$B \rightarrow \cdot b, 3$$

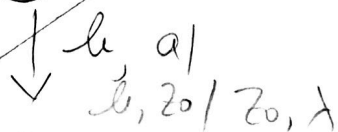
$$I_4: \text{caracterul citit } b$$

$$B \rightarrow b \cdot, 3 \text{ completare}$$

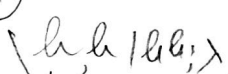
$$S \rightarrow A \cup B \cdot, 0$$

$$S' \rightarrow S \cdot, 0 \Rightarrow \text{ACCEPTARE}$$

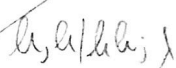
$$3) L = \{ a^{m+n} b^n x^{2m+2} y^{3n} \mid m, n \geq 0 \}$$



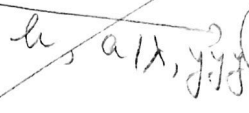
q_1



q_2



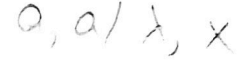
q_3



q_4

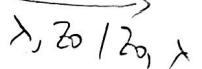


q_5



$a, z_0 / a, \lambda$

$a, a / a a, \lambda$



q_2



q_3



$\lambda, a / \lambda, x x$