

Verificação de Aprendizagem  
Construção de um Analisador Sintático Preditivo LL(1)

Linguagens Formais e Compiladores  
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Seja  $G$  a seguinte GLC:

$$\begin{aligned}P &::= KVC \\K &::= cK \mid \varepsilon \\V &::= vV \mid F \\F &::= fP; F \mid \varepsilon \\C &::= bVCe \mid com; C \mid \varepsilon\end{aligned}$$

1. Apresente os conjuntos First e Follow da Gramática.
2. Construa a tabela de parsing LL(1).
3. Apresente a sequência de estados da pilha de execução quando da análise da sentença "c v f b e ;"

## 1) First (F1) e Follow (Fo)

First

$$F1(V) = \{v, f, \varepsilon\}$$

$$F1(C) = \{b, com, \varepsilon\}$$

$$F1(K) = \{c, \varepsilon\}$$

$$F1(F) = \{f, \varepsilon\}$$

$$F1(P) = \{c, v, f, b, com, \varepsilon\}$$

Follow

$$FO(P) = \{\$, ;\}$$

$$FO(K) = \{v, f, b, com, \$, ;\}$$

$$FO(v) = \{b, com, e, \$, ;\}$$

$$FO(F) = \{b, com, e, \$, ;\}$$

$$FO(c) = \{e, \$, ;\}$$

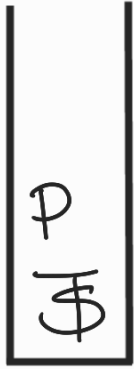
1  $P ::= KVC$   
2,3  $K ::= cK \mid \varepsilon$   
4,5  $V ::= vV \mid F$   
6,7  $F ::= fP; F \mid \varepsilon$   
8,9,10  $C ::= bVCe \mid com; C \mid \varepsilon$

	c	v	f	;	b	e	com	\$
P	1	1	1	1	1	/	1	1
K	2	3	3	3	3	/	3	3
v	/	4	5	5	5	5	5	5
F	/	/	6	7	7	7	7	7
C	/	/	/	10	8	10	9	10

3) seq. de estados da pilha

p/ "cvfbe;"

cvfbe;



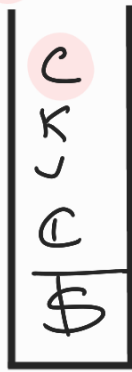
1

cvfbe;

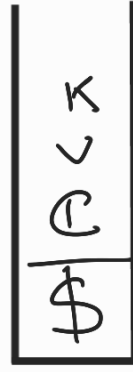


2

cvfbe;



vfbe;

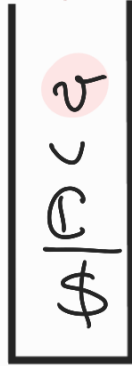


vfbe;



4

vfbe;



fbe;

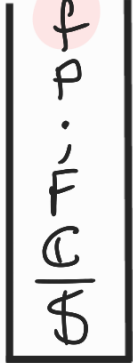


5

fbe;



fbe;



be;



1

be;



3

be;



