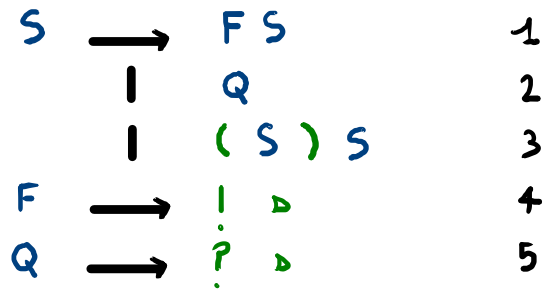


an example



a session is a series of facts followed by a question

sub-sessions are allowed

is it **LL(1)** ?

let us compute **First**

	1	2	3
S	((? !	(? !
F	!	!	!
Q	?	?	?

thus, the **LL(1)** table is the following

	()	!	?	>
S	3		1	2	
F			4		
Q				5	

another example

Z	→	S \$	0
S	→	L Q	1
		(S) S	2
L	→	F L	3
		ε	4
F	→	▷	5
Q	→	? ▷	6

Null = L

pattern FL
 and ... L a ... possible
 and L ∈ Null
 ⇒
 ... F a ... possible
 a ∈ Follow (F)

let us compute First

	1	2	3	4
Z		((? .	(? ! .
S	((? .	(? ! .	(? ! .
L		!	!	!
F	!	!	!	!
Q	? .	? .	? .	? .

and Follow

Z

S

L

F

Q

) \$

?

! ?

) \$

thus, the **LL(1)** table is the following

	()	!	?	>	\$
Z	0		0	0		
S	2		1	1		
L			3	4		
F			5			
Q				6		

$LL(k)$

consider

$S \xrightarrow{1} \begin{matrix} a^k & a \\ a^k & b \end{matrix}$

it is $LL(k+1)$ but not $LL(k)$