1.1 Adapt the grammar by eliminating any left recursion to make it compatible with top-down LL(1) parsing.

$$
\begin{aligned}
S &\rightarrow i\,C\,B\,E\,n \\
C &\rightarrow c \\
B &\rightarrow m\,L \mid o\,X \\
L &\rightarrow X \mid L' \\
L' &\rightarrow X;\,L \\
X &\rightarrow x \mid y \\
E &\rightarrow e\,B \mid \varepsilon
\end{aligned}
$$

1.2 Tabulate the FIRST and FOLLOW sets for each non-terminal, as well as their nullability.

$$
\begin{aligned}
\text{FIRST}(S) &= (i) & \text{FOLLOW}(S) &= \$ & \text{nullable}(S) &= no \\
\text{FIRST}(C) &= (c) & \text{FOLLOW}(C) &= (m) & \text{nullable}(C) &= no \\
\text{FIRST}(B) &= (m,o) & \text{FOLLOW}(B) &= (e,n) & \text{nullable}(B) &= no \\
\text{FIRST}(L) &= (x,y) & \text{FOLLOW}(L) &= (e,n) & \text{nullable}(L) &= no \\
\text{FIRST}(L') &= (x,y) & \text{FOLLOW}(L') &= (e,n) & \text{nullable}(L') &= no \\
\text{FIRST}(X) &= (x,y) & \text{FOLLOW}(X) &= (e,n,;) & \text{nullable}(X) &= no \\
\text{FIRST}(E) &= (e) & \text{FOLLOW}(E) &= (n) & \text{nullable}(E) &= yes
\end{aligned}
$$

1.3 Construct the LL(1) parsing table for your grammar

	i	c	m	o	x	y	e	n	;
S	S→iCBEn								
C		C→c							
B			B→mL	B→oX					
L					L→X|L'	L→X|L'			
L'					L'→X;L	L'→X;L			
X					X→x	X→y			
E							E→eB	E→ε	

2. VSL specification

```
jonczyk@alicja:~/COMPILER_CONSTRUCTION/problem_set_2/vsl_programs$ make ps2-check
cd ps2-parser; \
find * -wholename "suggested/*.ast" | awk -F/ '{print $0 " " $2}' | xargs -L 1 diff -s --unified=0
Files suggested/arrays.ast and arrays.ast are identical
Files suggested/function_call.ast and function_call.ast are identical
Files suggested/if_else.ast and if_else.ast are identical
Files suggested/helloworld.ast and helloworld.ast are identical
Files suggested/operators.ast and operators.ast are identical
Files suggested/variables.ast and variables.ast are identical
Files suggested/assignments.ast and assignments.ast are identical
Files suggested/while.ast and while.ast are identical
No differences found in PS2!
jonczyk@alicja:~/COMPILER_CONSTRUCTION/problem_set_2/vsl_programs$
```